



Water Services Authority  
Taumata Arowai

This legislation is administered by the Water Services Authority—Taumata Arowai. For more information please see:

Website: <http://www.taumataarowai.govt.nz>

Contact phone: +64 4 889 8350

Contact address: PO Box 628, Wellington 6140, New Zealand

## Water Services (Drinking Water Quality Assurance) Rules 2026

These rules are made under [section 49](#) of the [Water Services Act 2021](#) by the Chief Executive of the Water Services Authority—Taumata Arowai acting under delegated authority after consultation in accordance with [section 53](#) of that Act.

### Contents

	Page
1 Title	1
2 Commencement	1
<b>Preliminary rules</b>	
3 Interpretation	1
4 Compliance rules	4
5 Categories of drinking water supply	4
6 Applicable Rules modules	5
7 Representative sampling	6
8 Level 3 source water classes	6
9 Requirements for a sanitary bore head	9
<b>Schedule 1</b>	
<b>Drinking Water Quality Assurance Rules 2026</b>	
<b>Schedule 2</b>	
<b>Revocation and transitional provisions</b>	
	62

### 1 Title

This is the Water Services (Drinking Water Quality Assurance) Rules 2026.

### 2 Commencement

These rules come into force on 1 July 2027.

### Preliminary rules

### 3 Interpretation

In these rules, unless the context otherwise requires,—

**Act** means the [Water Services Act 2021](#)

**annulus** means the void between a bore hole and the bore casing

**apron** (bore) means an impervious ground covering, typically concrete, around a bore which directs water away from the bore

**barrier** means a process or infrastructure which prevents or reduces the likelihood of contamination of a drinking water supply

**benthic cyanobacterial mat** means a collective mass of cyanobacteria that forms on the bottom surface of a water body but can sometimes detach and float to the surface.

**bore** means a piped or encased hole constructed to access groundwater

**building** means a stand-alone structure where drinking water is provided. A building does not include a structure where only non-potable water is provided for other uses

**C.t value** means the product of the concentration (C) of a disinfectant and the contact time (t) required to control micro-organisms

**compliance period** means the time over which compliance is assessed, usually 1 day, 1 month or 1 year

**compliance year** means the 12-month period from 1 July to 30 June

**contact time** means the hydraulic residence time of a disinfection process

**T<sub>10</sub> (contact time)** means the effective contact time, which is the time it takes 10% of the volume of a unit to pass through a tank

**cross connection** means any actual or potential connection between a drinking water supply and stormwater, wastewater, or other infrastructure

**designated UV validation standard** means one of the following:

- (a) NSF/ANSI 55 Class A (for populations of up to 5000):
- (b) USEPA Ultraviolet Disinfection Guidance Manual:
- (c) DVGW Technical Standard W294-1:2023-12:
- (d) ÖNORM M 5873-1: 2020 01 01:
- (e) DIN 19294-1:2020-08:
- (f) ÖNORM M5873 (if installed before 1 January 2020)

**determinand** has the meaning set out in the [Water Services \(Drinking Water Standards for New Zealand\) Regulations 2022](#)

**differential pressure** means the difference in pressure between two given points, for example, on the inlet and outlet of a filter

**direct filtration** means a treatment process which consists of coagulation, flocculation, and filtration, without a sedimentation process before filtration

**direct integrity test** means a physical test applied to a membrane unit to identify and isolate one or more leaks that could result in contamination of the filtrate

**disinfection by-product** means a substance formed in drinking water as a result of a disinfection process

**distribution system** means all components (for example, buildings, storage tanks, electrical equipment, reticulation, pumps, instrumentation, etc) of a drinking water supply used to transmit drinking water to consumers or other drinking water suppliers

**distribution zone** means all or part of a distribution system which contains water of a similar character, often defined as a bounded geographic area, every drinking water supply with a distribution system has at least one distribution zone

**duty (UVI) sensor** means the duty UV sensor installed in a UV unit that monitors UV intensity during UV equipment operations

**FAC** means free available chlorine, which is the chlorine present in chlorinated water in the form of hypochlorous acid and hypochlorite ion

**FACE** means free available chlorine equivalent, which is the FAC concentration that would have the same disinfecting power as the chlorine solution would have at pH 8

**filtrate** means water, other than wash water, leaving a filter

**inactivate** means a mechanism which inhibits the reproduction of a micro-organism

**log credit** means a method for determining a treatment level based on a log-scale control of the target micro-organism

**MAV** means maximum acceptable value, which has the meaning set out in the [Water Services \(Drinking Water Standards for New Zealand\) Regulations 2022](#)

**NTU** means nephelometric turbidity unit, which is a unit of measurement for turbidity

**(oo)cysts** is the collective term for oocysts and cysts. A *Cryptosporidium* oocyst is a thick-walled structure within which *Cryptosporidium* zygotes develop and that serves to transfer the organism to new hosts

**ozone residual** means the ozone remaining after disinfection has been achieved

**planktonic cyanobacteria** means cyanobacteria which are freely floating in a body of water

**pore size** means the nominal or absolute size of the holes or apertures in a thin layer of continuous medium (for example, a cartridge filter)

**recycled water** means water, usually discharged from a treatment process which undergoes some form of treatment and then is returned to the start of the treatment process (i.e., recycled)

**reduction equivalent dose (RED)** means the UV dose of validated UV systems that have undergone independent, third-party bioassay testing using live surrogate microorganisms to physically test and ascertain reactor performance

**reference (UVI) sensor** means a calibrated sensor used to check the validation of the duty sensor

**reporting period** means the time that compliance reporting must cover and may include one or more compliance periods, reporting periods differ depending on the Rules modules being reported against

**residual disinfection** means a disinfectant, typically chlorine, remaining in the water after it leaves a treatment plant to act as a barrier to recontamination of water in a distribution system

**roof water** means the rainwater collected from the roof of a building or structure

**Rules module** means a Drinking Water Quality Assurance Rules module set out in [Schedule 1](#)

**supply component** means the component of the water system, either source, treatment plant or distribution zone or water carrier

**surface water** means a lake, river, stream or similar body of water that is located above land

**UV** means ultraviolet light

**UV dose** means the amount of UV radiation emitted into water within a UV reactor calculated by the UV intensity multiplied by the exposure time, usually measured in  $\text{mJ}/\text{cm}^2$

**UVI** means UV intensity, which is the intensity of UV radiation, usually measured in  $\text{mW}/\text{cm}^2$

**UVT** means UV transmittance, which is a measure of the amount of ultraviolet light (typically measured at 254 nm) that passes through water

**waste stream** means a flow of water from a drinking water treatment plant that is not intended for further treatment or use as drinking water

#### 4 Compliance rules

- (1) In accordance with [section 49](#) of the Act, these rules are compliance rules setting out requirements relating to the performance of functions or duties by drinking water suppliers under [Part 2](#) of the Act.
- (2) The Drinking Water Quality Assurance Rules set out in [Schedule 1](#) are compliance rules.

#### 5 Categories of drinking water supply

- (1) In these rules, the following categories of drinking water supply apply:
  - (a) **Very small communities** are drinking water supplies of any configuration or arrangement that provide drinking water to a population of no more than 25 people and in circumstances when the population supplied fluctuates, the population supplied may increase to up to 50 people for up to 60 days in any 12-month period.
  - (b) **Networked supplies** are drinking water supplies that provide drinking water via a distribution system at a pressure and volume to meet consumer demand, or at a restricted flow and volume and may include storage facilities within the network to buffer demand and provide water to more than 25 people.
  - (c) **Self-supplied buildings** are drinking water supplies which provide drinking water to up to ten buildings on one site (within the boundaries of one property, or within the boundaries of two or more properties with common ownership arrangements) and provide water to more than 25 people.
  - (d) **Downstream supplies** are drinking water supplies that receive drinking water from another drinking water supplier. A downstream drinking water supply may be a networked supply with treatment and/or distribution or a self-supplied building with treatment.
  - (e) **Water carrier services** are drinking water supplies that involve the transport of drinking water in a vehicle or vessel with a water tank (for example, a truck, trailer, or rail wagon) and supply to consumers or other drinking water suppliers, often to a storage tank on a property.

- (f) **Water carrier supplies** are drinking water supplies that provide water specifically to fill tanker vehicles that are owned or operated by a water carrier service.
- (g) **Community drinking water stations** are drinking water supplies that provide drinking water from a single point of supply to a community who collect the water in containers but does not include public taps or container filling stations that are connected to a networked supply (for example, community taps that provide water which is chlorinated and then de-chlorinated).
- (2) For networked supplies and self-supplied buildings including downstream supplies, the following subcategories of drinking water supply are:
- (a) **Small** means a drinking water supply with a population of 26-100 people.
- (a) **Medium** means a drinking water supply with a population of 101-500 people.
- (b) **Large** means a drinking water supply with a population of more than 500 people.

## 6 Applicable Rules modules

- (1) Except as otherwise provided by the Act, a drinking water supplier must comply with the following Rules modules in the [Drinking Water Quality Assurance Rules](#) according to the relevant category or subcategory of drinking water supply:
- (a) Very small communities – [VSC](#)
- (b) Networked supplies:
- (i) Small – [G](#) + [S1](#) + [T1](#) + [D1](#) + [VP](#)
- (ii) Medium – [G](#) + [S2](#) + [T2](#) + [D2](#) + [VP](#)
- (iii) Large – [G](#) + [S3](#) + [T3](#) + [D3](#)
- (c) Self-supplied buildings:
- (i) Small – [G](#) + [S1](#) + [T1](#) + [VP](#)
- (ii) Medium – [G](#) + [S2](#) + [T2](#) + [VP](#)
- (iii) Large – [G](#) + [S3](#) + [T3](#)
- (d) Downstream supplies:
- (i) Networked supplies with treatment:
- a. Small – [G](#) + [T1](#) + [D1](#) + [VP](#)
- b. Medium – [G](#) + [T2](#) + [D2](#) + [VP](#)
- c. Large – [G](#) + [T3](#) + [D3](#)
- (ii) Networked suppliers receiving treated water:
- a. Small – [G](#) + [D1](#) + [VP](#)
- b. Medium – [G](#) + [D2](#) + [VP](#)
- c. Large – [G](#) + [D3](#)

- (iii) Self-supplied buildings:
  - a. Small – G + T1 + VP
  - b. Medium – G + T2 + VP
  - c. Large – G + T3
- (e) Water carrier services – G + WC
- (f) Water carrier supplies – G + S1 + T1
- (g) Community drinking water stations – G + S1 + T1
- (2) For the avoidance of doubt, a drinking water supplier may elect to comply with a higher Rules module for source water, treatment or distribution, but must comply with all of the rules in the higher Rules module they choose to use.
- (3) A drinking water supplier electing to use level 3 treatment rules (T3) must also use level 3 source water rules (S3).

## 7 Representative sampling

- (1) For the purpose of the level 3 source water rules, **representative sampling** means the sampling of one bore that is representative of two or more bores that access the same aquifer.
- (2) Representative sampling must meet all the following requirements:
  - (a) the drinking water supplier can demonstrate that the bore that is sampled is representative of the bores that are not sampled:
  - (b) the representative nature of the sampled bore is re-established at least every five years or after significant seismic activity:
  - (c) the assessment and reassessments are undertaken by a suitably qualified and experienced person and recorded in writing.

## 8 Level 3 source water classes

For the purpose of the level 3 Rules modules, the following source water classes apply (Class A and Class A (Interim) source water classes only apply to networked supplies):

- (1) **Class A** is groundwater abstracted from a depth of greater than 30 metres below ground level (with depth measured from ground level to the top of the upper most screen), and abstracted via a sanitary bore head, that meets the following requirements:
  - (a) the drinking water supplier has demonstrated that—
    - (i) *E. coli* and/or total coliforms have not been detected from monitoring over the previous three years with 12 samples taken per year evenly spaced over the year; and
    - (ii) F-specific RNA bacteriophage has not been detected from monitoring for the previous year with a sample taken every four months; or
    - (iii) the requirements of Class A (Interim) have been met:
  - (b) an assessment must be undertaken as soon as possible if any monitoring result (including from source water rules monitoring) indicates that—

- 
- (i) *E. coli*, total coliforms or F-specific RNA bacteriophage have been detected; or
      - (ii) the integrity of the groundwater has been compromised:
    - (c) the assessment must—
      - (i) determine the likely cause; and
      - (ii) identify any actions that need to be taken to protect public health; and
      - (iii) include an investigative sampling programme based on the sampling requirements in (2)(a)(ii) and/or (2)(a)(iii) for the determinand not met and any other determinands deemed appropriate; and
      - (iv) determine whether the source water still meets the criteria for Class A or reassessment is required to determine the appropriate source water class.
  - (2) **Class A (Interim)** applies if a drinking water supplier intends to demonstrate Class A status but does not have the required monitoring data to demonstrate that source water is Class A. **Class A (Interim)** status can be applied prior to achieving Class A status by meeting the following requirements:
    - (a) the drinking water supplier must demonstrate that—
      - (i) *E. coli* and/or total coliforms have not been detected from monitoring over the previous three years with 12 samples taken per year evenly spaced over the year; or
      - (ii) *E. coli* and/or total coliforms have not been detected after consecutive daily monitoring for 36 days, followed by weekly monitoring for the remainder of the 52 weeks; and
      - (iii) F-specific RNA bacteriophage has not been detected after consecutive weekly monitoring for two months, followed by monthly monitoring for two months and four samples evenly spaced over the remaining eight months:
    - (b) an assessment must be undertaken as soon as possible if any monitoring result (including from source water rules monitoring) indicates that—
      - (i) *E. coli*, total coliforms or F-specific RNA bacteriophage have been detected; or
      - (ii) the integrity of the groundwater has been compromised:
    - (c) the assessment must—
      - (i) determine the likely cause; and
      - (ii) identify any actions that need to be taken to protect public health:
    - (d) where 2(b)(i) or (ii) applies, 2(a)(ii) and/or 2(a)(iii) must be repeated:
    - (e) if Class A status cannot be established within 24 months of being classified as a Class A (Interim) source, the source water must be classified as Class B or Class C.
  - (3) **Class B** is groundwater abstracted from a depth of greater than 30 metres below ground level (with depth measured from ground level to the top of the upper most screen) and abstracted via a sanitary bore head that meets the following requirements:
    - (a) the drinking water supplier has demonstrated that:

- 
- (i) *E. coli* and/or total coliforms have not been detected from monitoring over the previous three years with 12 samples taken per year evenly spaced over the year; or
      - (ii) the requirements of Class B (Interim) have been met:
    - (b) an assessment must be undertaken as soon as possible if any monitoring result (including from source water rules monitoring) indicates that—
      - (i) *E. coli* or total coliforms have been detected; or
      - (ii) the integrity of the groundwater has been compromised:
    - (c) the assessment must—
      - (i) determine the likely cause; and
      - (ii) identify any actions that need to be taken to protect public health; and
      - (iii) include an investigative sampling programme based on the sampling requirements in (4)(a)(i) for the determinand not met and any other determinands deemed appropriate; and
      - (iv) determine whether the source water still meets the criteria for Class B or reassessment is required to determine the appropriate source water class.
  - (4) **Class B (Interim)** applies if a drinking water supplier intends to demonstrate Class B status but does not have the required monitoring data to demonstrate Class B source water. **Class B (Interim)** status can be applied prior to achieving Class B status by meeting the following requirements:
    - (a) the drinking water supplier must demonstrate that—
      - (i) *E. coli* and/or total coliforms have not been detected after consecutive daily monitoring for 36 days, followed by weekly monitoring for the remainder of the 52 weeks; or
      - (ii) *E. coli* and/or total coliforms have not been detected from monitoring over the previous three years with 12 samples taken per year evenly spaced over the year; and
    - (b) an assessment must be undertaken as soon as possible if any monitoring result (including from source water rules monitoring) indicates that—
      - (i) *E. coli* or total coliforms have been detected; or
      - (ii) the integrity of the groundwater has been compromised; and
    - (c) the assessment must—
      - (i) determine the likely cause; and
      - (ii) identify any actions that need to be taken to protect public health;
    - (d) where (4)(b)(i) or (ii) applies, (4)(a)(i) must be repeated:
    - (e) if Class B status cannot be established within 24 months of being classified as a Class B (Interim) source, the source water must be classified as Class C.
  - (5) **Class C** is—
    - (a) groundwater abstracted from a depth of greater than 10 metres below ground level including groundwater abstracted from greater than 30 metres that is not

- Class A or B (with depth measured from ground level to the top of the upper most screen); or
- (b) roof water; or
  - (c) spring water that is not under the influence of surface water; or
  - (d) Class D surface water, spring water or groundwater that has a low level of protozoa contamination risk.
- (6) **Class D** is—
- (a) surface water that is not Class C; or
  - (b) spring water that is not Class C; or
  - (c) groundwater that is not Class A, Class A (Interim), Class B, Class B (Interim) or Class C.

## 9 Requirements for a sanitary bore head

A bore head is a sanitary bore head for the purpose of level 3 Rules modules if all the following criteria are met:

- (a) the bore head is installed above ground:
- (b) the bore is installed in an area of ground that is not below the surrounding ground level such that ponding could occur around the bore head during rainfall:
- (c) the annulus of the casing is sealed, taking into account the formation that the bore has been installed in, to prevent the ingress of surface water via the outside of the casing and the bore is grouted below ground to an appropriate depth:
- (d) a concrete apron is installed around the bore head, extending at least one metre from the centre of the bore in all directions from the casing and sloping away from the casing so that any water on the concrete apron and surrounding ground surface is carried away from the bore:
- (e) all openings into the bore (for cables etc) are sealed and watertight to prevent access from water and vermin-proofed to prevent access by small animals etc:
- (f) all air vents and any other openings that are not watertight are screened to prevent access by small animals, face downwards, and are elevated at least 0.5 metres above the surrounding ground level:
- (g) reasonable security measures are in place to protect the bore head from unauthorised access or interference:
- (h) if the bore head is in an area where livestock are present, it is fenced to exclude those animals from an area extending at least five metres from the bore head:
- (i) a mechanism prevents backflow at the bore head:
- (j) the bore head is inspected at least every month for damage or defects and records are kept of all inspections for at least five years.

**Schedule 1**  
**Drinking Water Quality Assurance Rules 2026**  
**Contents**

	Page
<b>G General Rules module</b>	<b>11</b>
G.RR Reporting rules	11
G.SM Sampling and monitoring rules	14
G.CH Capability and hygiene rules	15
G.CM Continuous monitoring rules	15
<b>VSC Very Small Communities Rules module</b>	<b>18</b>
<b>S1 Level 1 Source Water Rules module</b>	<b>19</b>
<b>T1 Level 1 Treatment Rules module</b>	<b>20</b>
<b>D1 Level 1 Distribution System Rules module</b>	<b>22</b>
<b>S2 Level 2 Source Water Rules module</b>	<b>23</b>
<b>T2 Level 2 Treatment Rules module</b>	<b>24</b>
<b>D2 Level 2 Distribution System Rules module</b>	<b>27</b>
<b>VP Varying Populations Rules module</b>	<b>29</b>
<b>S3 Level 3 Source Water Rules module</b>	<b>31</b>
S3.CR Source water common rules	31
S3.AB Class A, Class A (Interim), Class B and Class B (Interim) source water rules	31
S3.CD Class C and Class D source water rules	33
<b>T3 Level 3 Treatment Rules module</b>	<b>37</b>
T3.B Bacteria and virus treatment rules	37
<i>T3.BC Bacteria and virus treatment common rules</i>	37
<i>T3.BF Free Available Chlorine rules</i>	38
<i>T3.BD Chlorine dioxide rules</i>	39
<i>T3.BO Ozone rules</i>	40
<i>T3.BU UV rules</i>	40
T3.P Protozoa treatment rules	42
<i>T3.PC Protozoa treatment common rules</i>	42
<i>T3.PD Coagulation and direct filtration rules [2.5-Log]</i>	44
<i>T3.PD Coagulation and direct filtration rules [3.0-Log]</i>	44
<i>T3.PF Coagulation, flocculation, sedimentation and filtration rules [3-Log]</i>	44
<i>T3.PF Coagulation, flocculation, sedimentation and filtration rules [3.5-Log]</i>	45
<i>T3.PF Coagulation, flocculation, sedimentation and filtration rules [4-Log]</i>	45
<i>T3.PA Cartridge filtration rules [2-Log]</i>	46
<i>T3.PM Membrane (microfiltration/ultrafiltration) filtration rules [up to 4-Log]</i>	47
<i>T3.PO Ozone rules [0.25 to 3.0-Log]</i>	48
<i>T3.PU UV rules [3-log or 4-Log]</i>	49
T3.CH Chemical monitoring rules	51
T3.CY Cyanotoxin monitoring rules	52
<b>D3 Level 3 Distribution Rules module</b>	<b>53</b>
D3.BF Backflow protection rules	53
D3.HP New and repaired watermains hygiene procedures	54
D3.FO Facilities operation / maintenance and disinfection rules	55
D3.RD Residual disinfection / disinfection byproducts and plumbosolvent metals rules	56
D3.MM Microbiological monitoring rules	59
<b>WC Water Carrier Service Rules module</b>	<b>61</b>

## G General Rules module

### G.RR Reporting rules

Rule number	Requirement	Parameters
<b>G.RR.1</b>	<p>Drinking water suppliers demonstrating compliance against level 1, level 2, and level 3 Rules modules must include in each report—</p> <ul style="list-style-type: none"> <li>(a) the rule numbers that each reported result relates to; and</li> <li>(b) the supply ID and supply component of the supply being reported on; and</li> <li>(c) the start and end dates of the reporting period (for example, the first and last day of the month, quarter, or year); and</li> <li>(d) whether the results are from continuous monitoring, grab sampling or grab samples that substitute for continuous monitoring; and</li> <li>(e) the date the report was submitted; and</li> <li>(f) the name and email address of the person submitting the report.</li> </ul>	Rule type: Non-reporting
<b>G.RR.2</b>	<p>Drinking water suppliers demonstrating compliance against level 1 monitoring rules must report at the end of the compliance year—</p> <ul style="list-style-type: none"> <li>(a) the rule number and the test results required under each monitoring rule; and</li> <li>(b) the supply component ID, sample ID and sample date for each sample analysed by or on behalf of the supplier for compliance with these rules; and</li> <li>(c) where continuous monitoring has been used in place of grab sampling— <ul style="list-style-type: none"> <li>(i) the maximum value of any non-compliant determinand for rules with maximum limits or the minimum value of any non-compliant determinand for rules with minimum limits; and</li> <li>(ii) the period that any data was not recorded for, including the start time, finish time and duration; and</li> </ul> </li> <li>(d) within 40 working days after the end of each compliance year; and</li> <li>(e) in an approved form.</li> </ul>	Rule type: Non-reporting

<b>G.RR.3</b>	<p>Drinking water suppliers demonstrating compliance against level 2 monitoring rules must report at the end of each quarter for rules with a one-month or three-month compliance period and at the end of the compliance year for rules with a one-year compliance period—</p> <ul style="list-style-type: none"> <li>(a) the rule number and the test results required under each monitoring rule; and</li> <li>(b) the supply component ID, sample ID and sample date for each sample analysed by or on behalf of the supplier for compliance with these rules; and</li> <li>(c) whether the supply complied with each monitoring rule or not for the compliance period; and</li> <li>(d) the number of compliance periods that each rule was not complied with; and</li> <li>(e) where continuous monitoring has been used in place of grab sampling— <ul style="list-style-type: none"> <li>(i) the maximum value of the non-compliant determinand for rules with maximum limits or the minimum value of the non-compliant determinand for rules with minimum limits; and</li> <li>(ii) the period that any data was not recorded for, including the start time, finish time and duration; and</li> </ul> </li> <li>(f) within 20 working days of the end of each quarter for rules with a one-month or three-month compliance period; and</li> <li>(g) within 40 working days after the end of each compliance year for rules with one-year compliance periods; and</li> <li>(h) in an approved form.</li> </ul>	Rule type: Non-reporting
<b>G.RR.4</b>	<p>Drinking water suppliers demonstrating compliance against level 2 assurance rules must report—</p> <ul style="list-style-type: none"> <li>(a) the rule number; and</li> <li>(b) whether the supply complied with the assurance rule for the compliance year; and</li> <li>(c) within 40 working days after the end of each compliance year; and</li> <li>(d) in an approved form.</li> </ul>	Rule type: Non-reporting
<b>G.RR.5</b>	<p>Drinking water suppliers demonstrating compliance against level 3 treatment and distribution monitoring rules that require continuous monitoring must report monthly—</p> <ul style="list-style-type: none"> <li>(a) the rule number; and</li> </ul>	Rule type: Non-reporting

	<ul style="list-style-type: none"> <li>(b) the supply component ID and the determinand being continuously monitored for compliance with these rules; and</li> <li>(c) whether the supply complied with that monitoring rule for the month; and</li> <li>(d) for every non-compliance— <ul style="list-style-type: none"> <li>(i) the number of days that the rule was not complied with; and</li> <li>(ii) the date and duration of the non-compliance; and</li> <li>(iii) the maximum value of the non-compliant determinand for rules with maximum limits or the minimum value of the non-compliant determinand for rules with minimum limits; and</li> <li>(iv) the period that any data was not recorded for, including the start time, finish time and duration; and</li> </ul> </li> <li>(e) within 20 working days of the end of each reporting period; and</li> <li>(f) in an approved form.</li> </ul>	
<b>G.RR.6</b>	<p>Drinking water suppliers demonstrating compliance against level 3 monitoring rules that require grab samples must report each month for rules with a one-month reporting period and after the completion of the compliance year for rules with a one-year reporting period—</p> <ul style="list-style-type: none"> <li>(a) the rule number; and</li> <li>(b) the supply component, sample ID, sample date and the sample test result for each sample analysed by or on behalf of the supplier for compliance with these rules; and</li> <li>(c) whether the supply complied with each rule or not for the compliance period; and</li> <li>(d) the number of compliance periods that each rule was not complied with; and</li> <li>(e) within 20 working days of the end of each month for rules with a one-month reporting period; and</li> <li>(f) within 40 working days after the end of each compliance year for rules with a one-year reporting period; and</li> <li>(g) in an approved form.</li> </ul>	Rule type: Non-reporting
<b>G.RR.7</b>	<p>Drinking water suppliers demonstrating compliance against level 3 assurance rules must report each month for assurance rules with a one-month reporting period and after the completion of the compliance year for assurance rules with a one-year reporting period—</p>	Rule type: Non-reporting

	<ul style="list-style-type: none"> <li>(a) the rule number; and</li> <li>(b) whether the supply complied with the assurance rule during each compliance period; and</li> <li>(c) within 20 working days of the end of the compliance period for assurance rules with a one-month reporting period; and</li> <li>(d) within 40 working days after the end of each compliance period for assurance rules with a one-year reporting period; and</li> <li>(e) in an approved form.</li> </ul>	
--	---	--

### G.SM Sampling and monitoring rules

Rule number	Requirement	Parameters
<b>G.SM.1</b>	<p>All samples collected from drinking water supplies for monitoring that are analysed by laboratories or on-site analysis equipment must be labelled with—</p> <ul style="list-style-type: none"> <li>(a) the unique sample identifier; and</li> <li>(b) the supply ID and, where applicable, the supply component ID from which the sample was collected; and</li> <li>(c) the date that the sample was collected.</li> </ul>	<p>Rule type: Assurance Compliance period: 1 year Reporting period: 1 year</p>
<b>G.SM.2</b>	<p>All reasonably practicable steps must be taken to ensure that—</p> <ul style="list-style-type: none"> <li>(a) samples for <i>E. coli</i>, total coliforms, or other microbiological contaminants are delivered to a laboratory or analysed on-site within 24 hours of the sample being collected; and</li> <li>(b) samples are at a water temperature that is no higher than the water temperature at the time of sampling but above zero degrees Celsius.</li> </ul>	<p>Rule type: Assurance Compliance period: 1 year Reporting period: 1 year</p>
<b>G.SM.3</b>	<p>All water samples that are analysed by or on behalf of a water supplier for microbiological or chemical determinands and are used to demonstrate compliance with these Rules must be—</p> <ul style="list-style-type: none"> <li>(a) analysed by a laboratory or on-site analysis system accredited by IANZ for the type of analysis being undertaken; and</li> <li>(b) collected according to any instructions and specifications provided by the laboratory or on-site testing equipment supplier.</li> </ul>	<p>Rule type: Assurance Compliance period: 1 year Reporting period: 1 year</p>

<b>G.SM.4</b>	Equipment used for the analysis of single samples/grab samples to demonstrate compliance with these Rules, must be calibrated/verified at least in accordance with the instrument manufacturer's specified procedures and frequency.	Rule type: Assurance Compliance period: 1 year Reporting period: 1 year
---------------	--	---

### G.CH      Capability and hygiene rules

<b>Rule number</b>	<b>Requirement</b>	<b>Parameters</b>
<b>G.CH.1</b>	All work (planned or unplanned) on a drinking water supply must be completed by suitably trained or experienced personnel.	Rule type: Assurance Compliance period: 1 year Reporting period: 1 year
<b>G.CH.2</b>	A hygiene code of practice must be prepared and implemented for people working on or visitors to a drinking water supply facility and must include— (a) maintenance of personal hygiene at all times; and (b) prohibition of people working on, or visitors to, a water system who are experiencing any gastrointestinal illness; and (c) protection of the work site, materials, and tools from contamination; and (d) how all reasonably practicable steps will be taken to minimise the entry of contamination into the water supply during any activity.	Rule type: Assurance Compliance period: 1 year Reporting period: 1 year

### G.CM      Continuous monitoring rules

<b>Rule number</b>	<b>Requirement</b>	<b>Parameters</b>
<b>G.CM.1</b>	Continuous monitoring equipment used to demonstrate compliance with these Rules must— (a) be calibrated in accordance with the instrument manufacturer's specified procedures and at least at the minimum frequency; and (b) have calibration verified in accordance with the instrument manufacturer's specified procedures.	Rule type: Assurance Compliance period: 1 year Reporting period: 1 year
<b>G.CM.2</b>	Continuous monitoring equipment that is used to demonstrate compliance must be configured to record data at the following intervals for continuous monitoring rule requirements: (a) up to five minutes for FAC and fluoride analysers where the minimum cycle time specified by the manufacturer exceeds one minute:	Rule type: Assurance Compliance period: 1 year Reporting period: 1 year

	<p>(b) up to one minute for all other determinands in level 2 and level 3 treatment rules:</p> <p>(c) up to 30 minutes for all determinands in level 3 source water rules and level 3 distribution rules.</p>	
<b>G.CM.3</b>	<p>Where continuous monitoring is used to collect data for level 3 source water rules and continuously monitored data cannot be recorded—</p> <p>(a) data recording may be interrupted for a period of up to seven days (consecutive or intermittent) in each month; and</p> <p>(b) if data is interrupted for more than seven days and/or the data cannot be recorded after a month, test results from grab samples may be used to verify compliance with relevant water quality thresholds where one grab sample may be used to account for up to seven days of lost continuous monitoring data for a period of up to one further month.</p>	<p>Rule type: Assurance</p> <p>Compliance period: 1 year</p> <p>Reporting period: 1 year</p>
<b>G.CM.4</b>	<p>When continuous monitoring is used to demonstrate compliance with level 1, level 2 or level 3 treatment rules and continuously monitored data cannot be recorded—</p> <p>(a) data recording may be interrupted for a period of no more than five consecutive minutes, or for a total of no more than 15 minutes in any one-day compliance period; and</p> <p>(b) if data is interrupted for more than five consecutive minutes test results from grab samples may be used to verify compliance with relevant water quality thresholds where one grab sample is used to account for up to 60 consecutive minutes of lost continuous monitoring data for up to 24 hours; and</p> <p>(c) if a grab sample used to replace continuous monitoring data fails to meet the continuous monitoring maximum or minimum limits—</p> <p>(i) the drinking water supply must be reported as non-compliant with the relevant rule for the compliance period; and</p> <p>(ii) the drinking water supplier must report the date and duration of the non-compliance.</p>	<p>Rule type: Assurance</p> <p>Compliance period: 1 year</p> <p>Reporting period: 1 year</p>
<b>G.CM.5</b>	<p>When continuous monitoring is used to demonstrate compliance with level 3 distribution rules and continuously monitored data cannot be recorded—</p>	<p>Rule type: Assurance</p> <p>Compliance period: 1 year</p> <p>Reporting period: 1 year</p>

---

	<p>(a) data recording may be interrupted for a period of up to 48 hours before a grab sample must be taken and grab sampling compliant with rules <a href="#">D3.RD.3</a>, <a href="#">D3.RD.4</a> and <a href="#">D3.RD.5</a> must be continued; and</p> <p>(b) if a grab sample is used to replace continuous monitoring data fails to meet the continuous monitoring maximum/minimum limit, it must be reported as part of the reporting framework (rule <a href="#">G.RR.5</a>) with a 60-minute duration for the sample datetime.</p>	
--	--	--

### VSC Very Small Communities Rules module

Rule number	Requirement	Parameters
VSC.1	<p>Drinking water must be monitored at least every six months for the following:</p> <ul style="list-style-type: none"> <li>(a) <i>E. coli</i>;</li> <li>(b) total coliforms.</li> </ul>	Rule type: Non-reporting
VSC.2	<p>All water samples taken for <a href="#">VSC.1</a> must be—</p> <ul style="list-style-type: none"> <li>(a) analysed by a laboratory or on-site analysis equipment accredited by IANZ for those tests; and</li> <li>(b) collected according to the requirements of that laboratory.</li> </ul>	Rule type: Non-reporting
VSC.3	<p>When the population exceeds 25 people for more than 60 days in any 12-month period, the relevant Rules modules for Small supplies set out in <a href="#">rule 6 (Applicable Rules modules)</a> must be followed, for the remainder of the calendar year.</p>	Rule type: Non-reporting
VSC.4	<p>When the population exceeds 50 people for a planned event, the following requirements apply:</p> <ul style="list-style-type: none"> <li>(a) during the event, drinking water supplied to consumers must be— <ul style="list-style-type: none"> <li>(i) filtered; and either</li> <li>(ii) disinfected with UV light; or</li> <li>(iii) chlorinated;</li> </ul> </li> <li>(b) drinking water must be monitored in the week before the event and at least every week if the event exceeds one week for the following: <ul style="list-style-type: none"> <li>(i) <i>E. coli</i>;</li> <li>(ii) total coliforms.</li> </ul> </li> </ul>	Rule type: Non-reporting

## S1 Level 1 Source Water Rules module

Rule number	Requirement	Parameters
<b>S1.1</b>	Surface and groundwater sources must be monitored— (a) at least every three months for the following: (i) <i>E. coli</i> ; (ii) total coliforms; and	Rule type: Monitoring Compliance period: 3 months Reporting period: 1 quarter
	(b) at least every three years for the following: (i) arsenic; (ii) boron; (iii) nitrate; (iv) manganese.	Rule type: Monitoring Compliance period: 1 year Reporting period: 1 year
<b>S1.2</b>	Roof water sources must be monitored— (a) at least every three months for the following: (i) <i>E. coli</i> ; (ii) total coliforms; and	Rule type: Monitoring Compliance period: 3 months Reporting period: 1 quarter
	(b) at least every three years for the following: (i) cadmium; (ii) copper; (iii) lead.	Rule type: Monitoring Compliance period: 1 year Reporting period: 1 year
<b>S1.3</b>	Any chemical determinands that are identified as presenting a risk to a drinking water supply or are found to exceed 50% of their MAV in source water samples must be monitored at least annually until three consecutive annual results from source water samples are less than the 50% of the MAV.	Rule type: Monitoring Compliance period: 1 year Reporting period: 1 year
<b>S1.4</b>	Samples collected under— (a) rule <a href="#">S1.1</a> must be collected at the abstraction point or treatment plant prior to treatment and/or mixing with other sources; and (b) rule <a href="#">S1.2</a> must be collected at the raw water storage tank outlet and prior to any treatment.	Rule type: Non-reporting

<b>S1.5</b>	<p>The following measures must be taken in relation to surface water intakes:</p> <p>(a) at least every month between October and May (inclusive)—</p> <p>(i) the water and area around and upstream of the intake must be inspected for the presence of benthic cyanobacteria mats and planktonic cyanobacterial growth; or</p> <p>(ii) water must be monitored for cyanobacterial cell count at the treatment plant prior to mixing and treatment:</p> <p>(b) if there is evidence of cyanobacterial growth, steps must be taken to evaluate the cyanotoxin risk to consumers:</p> <p>(c) if there is a risk of supplying water with cyanotoxins that exceed a MAV, abstraction of water must be discontinued, an alternative source used, or treatment installed, until the risk is no longer present.</p>	Rule type: Non-reporting
<b>S1.6</b>	<p>Consumer taste or odour complaints, which have the potential to relate to cyanobacteria, must be—</p> <p>(a) recorded; and</p> <p>(b) investigated to determine the cause.</p>	Rule type: Non-reporting

### T1 Level 1 Treatment Rules module

<b>Rule number</b>	<b>Requirement</b>	<b>Parameters</b>
<b>T1.1</b>	<p>Drinking water leaving a treatment plant must be monitored at least every three months for the following:</p> <p>(a) <i>E. coli</i>;</p> <p>(b) total coliforms;</p> <p>(c) turbidity.</p>	<p>Rule type: Monitoring</p> <p>Compliance period: 3 months</p> <p>Reporting period: 1 quarter</p>
<b>T1.2</b>	<p>Any additional determinand(s) which are identified as presenting a risk to a drinking water supply must be monitored at least every three months in water leaving a treatment plant until three consecutive three-monthly results from treated water samples confirm the determinand(s) to be less than 50% of the MAV.</p>	<p>Rule type: Monitoring</p> <p>Compliance period: 1 year</p> <p>Reporting period: 1 year</p>

<b>T1.3</b>	<p>All drinking water supplied, excluding groundwater abstracted from a depth of greater than 30 metres, must be filtered by a—</p> <ul style="list-style-type: none"> <li>(a) cartridge filter system that includes a 5 micron (nominal) or smaller pore size; or</li> <li>(b) back-washable media filter; or</li> <li>(c) slow sand (biological) filter; or</li> <li>(d) membrane filter.</li> </ul>	Rule type: Non-reporting
<b>T1.4</b>	<p>Where filtration is used—</p> <ul style="list-style-type: none"> <li>(a) the filtration system must be operated within the manufacturer’s design specifications at all times; and</li> <li>(b) pumps must not be connected directly to the discharge side of any cartridge filter; and</li> <li>(c) where pumping occurs after filtration, the filtrate must first pass directly to a tank.</li> </ul>	Rule type: Non-reporting
<b>T1.5</b>	<p>All drinking water supplied must be disinfected with UV light and UV units must—</p> <ul style="list-style-type: none"> <li>(a) deliver at least 40 mJ/cm<sup>2</sup> (or equivalent) reduction equivalent dose (RED) of UV light; and</li> <li>(b) be installed, maintained and operated according to the manufacturer’s instructions; and</li> <li>(c) be certified to, and operate within the specifications of, a designated validation standard, unless purchased before 1 August 2022.</li> </ul>	Rule type: Non-reporting

## D1 Level 1 Distribution System Rules module

Rule number	Requirement	Parameters
<b>D1.1</b>	<p>Drinking water in a distribution zone must be monitored at least every three months for the following:</p> <p>(a) <i>E. coli</i>;</p> <p>(b) total coliforms.</p>	<p>Rule type: Monitoring</p> <p>Compliance period: 3 months</p> <p>Reporting period: 1 quarter</p>
<b>D1.2</b>	<p>The following measures must be taken in relation to backflow:</p> <p>(a) each distribution zone must be assessed for backflow risks and cross-connections at least every two years:</p> <p>(b) a register of all points of supply where there is a medium or high backflow risk must be maintained:</p> <p>(c) a suitable backflow prevention device must be installed at any point of supply identified in the register:</p> <p>(d) every testable backflow prevention device must be inspected and tested at least every two years by a suitably trained and qualified person:</p> <p>(e) any faulty backflow prevention device must be remediated as soon as practicable:</p> <p>(f) records of backflow prevention device test results must be retained.</p>	<p>Rule type: Non-reporting</p>

## S2 Level 2 Source Water Rules module

Rule number	Requirement	Parameters
S2.1	Surface and groundwater sources must be monitored— (a) at least every month for the following: (i) <i>E. coli</i> ; (ii) total coliforms; and	Rule type: Monitoring Compliance period: 1 month Reporting period: 1 quarter
	(b) at least annually for the following: (i) pH; (ii) turbidity; (iii) iron; (iv) manganese; (v) nitrate; (vi) arsenic; (vii) boron.	Rule type: Monitoring Compliance period: 1 year Reporting period: 1 year
S2.2	Roof water sources must be monitored— (a) at least every month for the following: (i) <i>E. coli</i> ; (ii) total coliforms; and	Rule type: Monitoring Compliance period: 1 month Reporting period: 1 quarter
	(b) at least every three years for the following: (i) cadmium; (ii) copper; (iii) lead.	Rule type: Monitoring Compliance period: 1 year Reporting period: 1 year
S2.3	Any chemical determinands that are identified as presenting a risk to a drinking water supply or are found to exceed 50% of their MAV in source water samples must be monitored at least annually until three consecutive annual results from source water samples are less than 50% of the MAV.	Rule type: Monitoring Compliance period: 1 year Reporting period: 1 year
S2.4	Samples collected under— (a) rule <a href="#">S2.1</a> must be collected at the abstraction point or treatment plant prior to treatment and/or mixing with other sources; and (b) rule <a href="#">S2.2</a> must be collected at the raw water storage tank outlet and prior to any treatment.	Rule type: Non-reporting

<b>S2.5</b>	Source water must be categorised as either no, low, medium or high risk for the presence of cyanobacteria.	Rule type: Assurance Compliance period: 1 year Reporting period: 1 year
<b>S2.6</b>	<p>The following measures must be taken in relation to surface water intakes:</p> <p>(a) at least every month between October and May (inclusive)—</p> <p>(i) the water and area around and upstream of the intake must be visually inspected for the presence of benthic cyanobacteria mats and planktonic cyanobacterial growth; or</p> <p>(ii) water must be monitored for cyanobacterial cell count at the treatment plant prior to mixing and treatment:</p> <p>(b) if there is evidence of cyanobacterial growth, steps must be taken to evaluate the cyanotoxin risk to consumers:</p> <p>(c) if there is a risk of supplying water with cyanotoxins that exceed a MAV, abstraction of water must be discontinued, an alternative source used, or treatment installed, until the risk is no longer present.</p>	Rule type: Non-reporting
<b>S2.7</b>	<p>Consumer taste or odour complaints, which have the potential to relate to cyanobacteria in drinking water, must be—</p> <p>(a) recorded; and</p> <p>(b) investigated to determine the cause.</p>	Rule type: Assurance Compliance period: 1 year Reporting period: 1 year

## T2 Level 2 Treatment Rules module

Rule number	Requirement	Parameters
<b>T2.1</b>	<p>Drinking water leaving a treatment plant must be monitored at least every month for the following:</p> <p>(a) <i>E. coli</i>;</p> <p>(b) total coliforms;</p> <p>(c) any chemical used in the treatment process (fluoride and FAC have separate requirements, see rule <a href="#">T2.2</a>).</p>	Rule type: Monitoring Compliance period: 1 month Reporting period: 1 quarter

<b>T2.2</b>	<p>Drinking water leaving a treatment plant must be monitored at least eight times per month for the following:</p> <ul style="list-style-type: none"> <li>(a) turbidity:</li> <li>(b) FAC (not required for self-supplied buildings):</li> <li>(c) pH (not required for self-supplied buildings):</li> <li>(d) fluoride (only if added to the water).</li> </ul>	<p>Rule type: Monitoring  Compliance period: 1 month  Reporting period: 1 quarter</p>
<b>T2.3</b>	<p>Samples collected for rule <a href="#">T2.2</a> must—</p> <ul style="list-style-type: none"> <li>(a) be evenly spaced across each month; and</li> <li>(b) use at least three different days of the week within each month.</li> </ul>	<p>Rule type: Non-reporting</p>
<b>T2.4</b>	<p>Drinking water leaving a treatment plant must be monitored for chlorate at least every three months if sodium hypochlorite or calcium hypochlorite is used as a disinfectant and is not generated on-site from a salt brine solution.</p>	<p>Rule type: Monitoring  Compliance period: 3 months  Reporting period: 1 quarter</p>
<b>T2.5</b>	<p>Any additional determinands which are identified as presenting a risk to a drinking water supply must be monitored at least every month in water leaving a treatment plant until three consecutive monthly results from treated water samples are less than the 50% of the MAV.</p>	<p>Rule type: Monitoring  Compliance period: 1 year  Reporting period: 1 year</p>
<b>T2.6</b>	<p>Drinking water leaving a treatment plant must meet the following limits while the plant is in service:</p> <ul style="list-style-type: none"> <li>(a) turbidity must be less than 5 NTU:</li> <li>(b) FAC must be at least 0.5 mg/L (not required for self-supplied buildings):</li> <li>(c) pH must be between 6.5 – 8 (not required for self-supplied buildings).</li> </ul>	<p>Rule type: Assurance  Compliance period: 1 year  Reporting period: 1 year</p>
<b>T2.7</b>	<p>All drinking water supplied, excluding groundwater abstracted from a depth of greater than 30 metres, must be filtered by a—</p> <ul style="list-style-type: none"> <li>(a) cartridge filter system; or</li> <li>(b) back-washable media filter; or</li> <li>(c) slow sand (biological) filter; or</li> <li>(d) membrane filter.</li> </ul>	<p>Rule type: Assurance  Compliance period: 1 year  Reporting period: 1 year</p>

<b>T2.8</b>	<p>If cartridge filtration is used—</p> <ul style="list-style-type: none"> <li>(a) the final cartridge must have a pore size of 5 microns (nominal) or less; and</li> <li>(b) pumps must not be connected directly to the discharge side of any cartridge filter; and</li> <li>(c) where pumping occurs after filtration, the filtrate must first discharge directly to a tank; and</li> <li>(d) differential pressure must be measured across each cartridge filter and must not exceed the cartridge filter manufacturer’s specifications; and</li> <li>(e) the flow through any filters must be within the manufacturer’s design specifications for the treatment processes at all times.</li> </ul>	<p>Rule type: Assurance  Compliance period: 1 year  Reporting period: 1 year</p>
<b>T2.9</b>	<p>All drinking water supplied must be—</p> <ul style="list-style-type: none"> <li>(a) disinfected with UV light; and</li> <li>(b) disinfected with chlorine (not required for self-supplied buildings).</li> </ul>	<p>Rule type: Assurance  Compliance period: 1 year  Reporting period: 1 year</p>
<b>T2.10</b>	<p>The following requirements must be met for UV treatment:</p> <ul style="list-style-type: none"> <li>(a) UV units must provide at least 40 mJ/cm<sup>2</sup> (or equivalent) reduction equivalent dose (RED) of UV light:</li> <li>(b) UVT must be monitored at least every month or continuously:</li> <li>(c) UVI or UV dose must be recorded twice per week or monitored continuously:</li> <li>(d) be certified to, and operate within the specifications of, a designated validation standard.</li> <li>(e) water flowing through the UV unit(s) must— <ul style="list-style-type: none"> <li>(i) meet the limits of UVT specified by the manufacturer; and</li> <li>(ii) be restricted or monitored so that the flow rate does not exceed the flow rate specified by the manufacturer:</li> </ul> </li> <li>(f) lamp usage must— <ul style="list-style-type: none"> <li>(i) be recorded; and</li> <li>(ii) be alarmed if the UV unit has more than one lamp; and</li> <li>(iii) not exceed manufacturer's recommendations:</li> </ul> </li> <li>(g) the duty UVI sensor must— <ul style="list-style-type: none"> <li>(i) be referenced against a new sensor annually; and</li> <li>(ii) be replaced if the duty sensor reads levels different to the new sensor that are outside the manufacturer’s recommendation.</li> </ul> </li> </ul>	<p>Rule type: Assurance  Compliance period: 1 year  Reporting period: 1 year</p>

## D2 Level 2 Distribution System Rules module

Rule number	Requirement	Parameters
<b>D2.1</b>	Drinking water in each distribution zone must be monitored at least every month for the following: (a) <i>E. coli</i> ; (b) total coliforms.	Rule type: Monitoring Compliance period: 1 month Reporting period: 1 quarter
<b>D2.2</b>	Drinking water in each distribution zone must be monitored at least eight times every month for FAC.	Rule type: Monitoring Compliance period: 1 month Reporting period: 1 quarter
<b>D2.3</b>	Samples for FAC, <i>E. coli</i> and total coliforms must be taken at regular sampling points that are representative of the geographical coverage of each distribution zone including— (a) exit points of storage reservoirs/tanks; and (b) end points of the distribution zone.	Rule type: Non-reporting
<b>D2.4</b>	Monitoring for FAC in each distribution zone must— (a) be evenly spaced across each month; and (b) use different days of the week.	Non-reporting
<b>D2.5</b>	Drinking water in each distribution zone must be monitored at least annually for the following: (a) antimony: (b) cadmium: (c) chromium: (d) copper: (e) lead: (f) mercury: (g) nickel.	Rule type: Monitoring Compliance period: 1 year Reporting period: 1 year
<b>D2.6</b>	When sampling for metals, sample points must— (a) be flushed immediately prior to obtaining samples; and (b) not be disinfected, for example flamed, immediately prior to sampling; and (c) be located near the end point of the system.	Rule type: Non-reporting

<b>D2.7</b>	FAC in each distribution zone must be— (a) at least 0.2 mg/L in 80% of samples taken; and (b) no less than 0.1 mg/L at any times.	Rule type: Assurance Compliance period: 1 year Reporting period: 1 year
<b>D2.8</b>	The following measures must be taken in relation to backflow: (a) each distribution zone must be assessed for backflow risks and cross-connections at least annually: (b) a register of all connections where there is a medium or high backflow risk must be maintained: (c) a suitable backflow prevention device must be installed at any connection identified in the register: (d) every testable backflow prevention device must be inspected and tested annually by a suitably trained and qualified person: (e) any faulty backflow prevention device must be remediated as soon as practicable: (f) records of backflow prevention device test results must be retained for at least three years.	Rule type: Assurance Compliance period: 1 year Reporting period: 1 year

## VP Varying Populations Rules module

Rule Number	Requirement	Parameters
<b>VP.1</b>	<p>If a drinking water supply operating under level 1 treatment or distribution rules exceeds 100 people, the following additional monitoring requirements must be met in the week before the population exceeds 100 people (if predictable) and continuing every week until the population reduces below 100 people:</p> <p>(a) drinking water leaving a treatment plant must be monitored at least weekly for the following:</p> <ul style="list-style-type: none"> <li>(i) <i>E. coli</i>:</li> <li>(ii) total coliforms:</li> </ul> <p>(b) if the supply has distribution zones, water from each distribution zone must be monitored at least weekly for the following:</p> <ul style="list-style-type: none"> <li>(i) <i>E. coli</i>:</li> <li>(ii) total coliforms.</li> </ul>	Rule type: Non-reporting
<b>VP.2</b>	<p>If a drinking water supply operating under level 1 treatment or level 1 distribution rules exceeds 500 people, the following additional monitoring requirements must be met from one week before the population exceeds 500 people (if predictable) and continuing every week until the population reduces to below 500 people:</p> <p>(a) drinking water leaving a treatment plant must be monitored at least twice weekly for the following:</p> <ul style="list-style-type: none"> <li>(i) <i>E. coli</i>:</li> <li>(ii) total coliforms:</li> </ul> <p>(b) if the supply has distribution zones, drinking water from each distribution zone must be monitored at least twice weekly for the following:</p> <ul style="list-style-type: none"> <li>(i) <i>E. coli</i>:</li> <li>(ii) total coliforms:</li> </ul> <p>(c) monitoring must continue in accordance with VP.1 where the population reduces below 500 people and remains above 100 people for any period of time.</p>	Rule type: Non-reporting
<b>VP.3</b>	<p>If a drinking water supply operating under level 2 treatment rules exceeds 500 people, drinking water leaving a treatment plant must be additionally monitored—</p> <p>(a) at least weekly for the following:</p>	Rule type: Non-reporting

	<ul style="list-style-type: none"> <li>(i) <i>E. coli</i>;</li> <li>(ii) total coliforms; and</li> </ul> <p>(b) at least daily for the following:</p> <ul style="list-style-type: none"> <li>(i) turbidity;</li> <li>(ii) FAC (not required for self-supplied buildings);</li> <li>(iii) pH (not required for self-supplied buildings).</li> </ul>	
<b>VP.4</b>	<p>If a drinking water supply operating under level 2 distribution rules exceeds 500 people, drinking water in each distribution zone must be additionally monitored—</p> <ul style="list-style-type: none"> <li>(a) at least weekly for the following: <ul style="list-style-type: none"> <li>(i) <i>E. coli</i>;</li> <li>(ii) total coliforms; and</li> </ul> </li> <li>(b) at least daily from a range of sites across each distribution zone for FAC (not required for self-supplied buildings).</li> </ul>	Rule type: Non-reporting

### S3 Level 3 Source Water Rules module

#### S3.CR Source water common rules

Rule number	Requirement	Parameters
S3.CR.1	<p>The source water class of each source of a drinking water supply must be determined—</p> <p>(a) based on the source water classes set out in <a href="#">rule 8 (Level 3 source water classes)</a> and recorded in writing; and</p> <p>(b) for Class A, Class A (Interim), Class B, Class B (Interim) or, Class C (excluding (b) roof water), by a suitably qualified and experienced person; and</p> <p>(c) for Class A, Class B, or, Class C (excluding (b) roof water), a reassessment must be completed whenever there is a substantive change in baseline source water conditions and at least every five years.</p>	<p>Rule type: Assurance</p> <p>Compliance period: 1 year</p> <p>Reporting period: 1 year</p>
S3.CR.2	<p>Representative sampling may be used to demonstrate compliance if—</p> <p>(a) the source water is or is being determined to be, Class A, Class A (Interim), Class B or Class B (Interim), Class C (a) groundwater; and</p> <p>(b) the representative sampling meets the requirements for representative sampling set out in <a href="#">rule 7 (Representative sampling)</a>.</p>	<p>Rule type: Assurance</p> <p>Compliance period: 1 year</p> <p>Reporting period: 1 year</p>
S3.CR.3	<p>Each Class A, Class B and Class C (a) groundwater source must be monitored at least every 10 years for the following radiological and chemical determinands:</p> <p>(a) gross alpha activity:</p> <p>(b) gross beta activity:</p> <p>(c) potassium 40.</p>	<p>Rule type: Non-reporting</p>

#### S3.AB Class A, Class A (Interim), Class B and Class B (Interim) source water rules

Rule number	Requirement	Parameters
S3.AB.1	<p>(a) Each bore must meet the requirements for a sanitary bore head set out in <a href="#">rule 9 (Requirements for a sanitary bore head)</a>.</p> <p>(b) A sanitary bore head must be demonstrated to meet the requirements by a written assessment from a suitably qualified and experienced person at least every five years.</p>	<p>Rule type: Assurance</p> <p>Compliance period: 1 year</p> <p>Reporting period: 1 year</p>

<b>S3.AB.2</b>	<p>Each Class A and Class B groundwater source must be monitored at least twice every month for the following:</p> <p>(a) <i>E. coli</i>:</p> <p>(b) total coliforms.</p>	<p>Rule type: Monitoring</p> <p>Compliance period: 1 month</p> <p>Reporting period: 1 month</p>
<b>S3.AB.3</b>	<p>Class A groundwater sources must be monitored for evidence of F-specific RNA bacteriophage by analysis of three evenly spaced samples at least each compliance year.</p>	<p>Rule type: Monitoring</p> <p>Compliance period: 1 year</p> <p>Reporting period: 1 year</p>
<b>S3.AB.4</b>	<p>(a) Each groundwater source must be monitored at least every month for the following:</p> <p>(i) iron:</p> <p>(ii) manganese:</p> <p>(iii) nitrate.</p> <p>(b) Where 12 consecutive sampling results for iron or manganese sampled under (a) are not more than 50% of the MAV, sampling may reduce to every twelve months, but if a result exceeds 50% of the MAV, sampling must return to monthly under (a).</p>	<p>Rule type: Monitoring</p> <p>Compliance period: 1 month</p> <p>Reporting period: 1 month</p>
<b>S3.AB.5</b>	<p>Each groundwater source or the water from a combination of groundwater sources must be monitored continuously for the following:</p> <p>(a) conductivity (must be prior to raw water storage or treatment):</p> <p>(b) pH (can be monitored post treatment if a treatment process that affects pH [excluding chlorination and fluoridation] is not used):</p> <p>(c) turbidity (can be monitored post treatment if the turbidity is not changed by a treatment process).</p>	<p>Rule type: Assurance</p> <p>Compliance period: 1 year</p> <p>Reporting period: 1 year</p>
<b>S3.AB.6</b>	<p>(a) Each groundwater source must be monitored at least every 12 months for the following:</p> <p>(i) alkalinity:</p> <p>(ii) antimony:</p> <p>(iii) arsenic:</p> <p>(iv) boron</p> <p>(v) cadmium:</p> <p>(vi) chloride:</p> <p>(vii) chromium:</p> <p>(viii) copper:</p> <p>(ix) fluoride</p> <p>(x) hardness</p> <p>(xi) lead:</p>	<p>Rule type: Monitoring</p> <p>Compliance period: 1 year</p> <p>Reporting period: 1 year</p>

	<ul style="list-style-type: none"> <li>(xii) mercury:</li> <li>(xiii) nickel:</li> <li>(xiv) sodium:</li> <li>(xv) sulphate.</li> </ul> <p>(b) Where a sampling result for a determinand in (a) exceeds 50% of the MAV, sampling must increase to at least every month until 12 consecutive monthly test results are not more than 50% of the MAV, then annual sampling can resume under (a).</p>	
--	---	--

### S3.CD Class C and Class D source water rules

Rule number	Requirement	Parameters
<b>S3.CD.1</b>	<p>Each source water or the combined water from multiple sources must be monitored continuously for the following:</p> <ul style="list-style-type: none"> <li>(a) conductivity:</li> <li>(b) pH:</li> <li>(c) turbidity.</li> </ul>	<p>Rule type: Assurance Compliance period: 1 year Reporting period: 1 year</p>
<b>S3.CD.2</b>	<p>Each source water must be monitored at least twice every month for the following:</p> <ul style="list-style-type: none"> <li>(a) <i>E. coli</i>:</li> <li>(b) total coliforms.</li> </ul>	<p>Rule type: Monitoring Compliance period: 1 month Reporting period: 1 month</p>
<b>S3.CD.3</b>	<ul style="list-style-type: none"> <li>(a) Each source water must be monitored at least every month for the following: <ul style="list-style-type: none"> <li>(i) iron;</li> <li>(ii) manganese;</li> <li>(iii) nitrate;</li> <li>(iv) colour (not required for Class C (a) groundwater).</li> </ul> </li> <li>(b) Where 12 consecutive sampling results for iron or manganese sampled under (a) are not more than 50% of the MAV, sampling may reduce to every twelve months, but if a result exceeds 50% of the MAV, sampling must return to monthly under (a).</li> </ul>	<p>Rule type: Monitoring Compliance period: 1 month Reporting period: 1 month</p>
<b>S3.CD.4</b>	<ul style="list-style-type: none"> <li>(a) Each source water must be monitored at least every 12 months for the following: <ul style="list-style-type: none"> <li>(i) alkalinity;</li> <li>(ii) antimony;</li> <li>(iii) arsenic;</li> <li>(iv) boron;</li> </ul> </li> </ul>	<p>Rule type: Monitoring Compliance period: 1 year Reporting period: 1 year</p>

	<ul style="list-style-type: none"> <li>(v) cadmium:</li> <li>(vi) chloride:</li> <li>(vii) chromium:</li> <li>(viii) copper:</li> <li>(ix) fluoride:</li> <li>(x) hardness:</li> <li>(xi) lead:</li> <li>(xii) mercury:</li> <li>(xiii) nickel:</li> <li>(xiv) sodium:</li> <li>(xv) sulphate.</li> </ul> <p>(b) Where a sampling result for a determinand in (a) exceeds 50% of the MAV, sampling must increase to at least every month until 12 consecutive monthly results are not more than 50% of the MAV, then annual sampling may resume under (a).</p>	
<b>S3.CD.5</b>	<p>(a) Each Class C source water that meets <a href="#">rule 8(5)(d)</a> and Class D source water must be assessed to determine—</p> <ul style="list-style-type: none"> <li>(i) whether it has high, medium or low likelihood for the presence of planktonic and/or benthic cyanobacteria and/or cyanotoxins in water at the abstraction point; and</li> <li>(ii) the locations/habitats in the source water where cyanobacteria are most likely to be present; and</li> <li>(iii) when cyanobacteria are most likely to be present (including October to May).</li> </ul> <p>(b) The assessment required under (a) must be:</p> <ul style="list-style-type: none"> <li>(i) undertaken by a suitably qualified and experienced person; and</li> <li>(ii) recorded in writing; and</li> <li>(iii) renewed whenever there is a substantive change in baseline source water conditions or at least every five years.</li> </ul>	<p>Rule type: Assurance Compliance period: 1 year Reporting period: 1 year</p>
<b>S3.CD.6</b>	<p>Where source waters have a low likelihood of planktonic or benthic cyanobacteria—</p> <p>(a) visual or other suitable inspections of the source water and area around the abstraction point must be undertaken at least every month during the period when cyanobacteria are most likely to be present (including October to May) to determine if cyanobacteria are present; and</p> <p>(b) if evidence of cyanobacteria is found during inspections under (a), the assessment under rule <a href="#">S3.CD.5</a> must be repeated without delay.</p>	<p>Rule type: Assurance Compliance period: 1 year Reporting period: 1 year</p>

<p><b>S3.CD.7</b></p>	<p>Where source waters have a medium or high likelihood of planktonic cyanobacteria or cyanotoxins at the abstraction point, either (a) or (b) or (c) and (d) must be followed:</p> <p>(a) water leaving the treatment plant must be tested in accordance with rules <a href="#">T3.CY.1(a)</a> and <a href="#">T3.CY.2</a> during the period identified in rule <a href="#">S3.CD.5</a> as the period that cyanobacteria are most likely to be present (including October to May):</p> <p>(b) the source water must be tested for cyanotoxins that have a MAV—</p> <p>(i) monthly during the period identified in rule <a href="#">S3.CD.5</a> as the period that cyanobacteria are most likely to be present (including October to May); and</p> <p>(ii) where cyanotoxins are identified, those cyanotoxins must be tested in water leaving the treatment plant in accordance with rules <a href="#">T3.CY.1(b)</a> and <a href="#">T3.CY.2</a>:</p> <p>(c) source water samples must be analysed by microscopy (cell counts, and biovolumes for picocyanobacteria) during the period that cyanobacteria are likely to be present (including October to May)—</p> <p>(i) weekly if the source has been assessed as having high likelihood in rule <a href="#">S3.CD.5</a>; or</p> <p>(ii) monthly if the source has been assessed as having medium likelihood in rule <a href="#">S3.CD.5</a>; and</p> <p>(d) if cyanobacterial cell concentrations or biovolumes (picocyanobacteria) exceed any of the following thresholds:</p> <p>A. 550 cells/mL for potential anatoxin-producing cyanobacteria:</p> <p>B. 50 cells/mL for potential cylindrospermopsin-producing cyanobacteria:</p> <p>C. 65 cells/mL for potential microcystin-/nodularin-producing cyanobacteria:</p> <p>D. 220 cells/mL for potential saxitoxin-producing cyanobacteria:</p> <p>E. 0.0012 mm<sup>3</sup>/L for potential microcystin-producing picocyanobacteria (including <i>Synechocystis</i> sp.);</p> <p>then either—</p> <p>(i) water leaving the treatment plant must be tested for the relevant cyanotoxins (depending on the cyanobacteria threshold exceeded) in accordance with rules <a href="#">T3.CY.1(b)</a> and <a href="#">T3.CY.2</a>; or</p>	<p>Rule type: Monitoring</p> <p>Compliance period: 1 month</p> <p>Reporting period: 1 month</p>
-----------------------	--	---

	<p>(ii) the source water must be tested for the presence of either—</p> <ol style="list-style-type: none"> <li>a. cyanotoxin production genes; or</li> <li>b. relevant cyanotoxins (depending on the cyanobacteria threshold exceeded); and</li> <li>c. where cyanotoxin production genes are identified or cyanotoxins are identified then water leaving the treatment plant must be tested for those cyanotoxins in accordance with rules <a href="#">T3.CY.1(b)</a> and <a href="#">T3.CY.2</a>.</li> </ol>	
<p><b>S3.CD.8</b></p>	<p>Where source waters have a medium or high likelihood of benthic cyanobacteria or cyanotoxins at the abstraction point, either (a) or (b) or (c) must be followed:</p> <ol style="list-style-type: none"> <li>(a) water leaving the treatment plant must be tested in accordance with rules <a href="#">T3.CY.1(a)</a> and <a href="#">T3.CY.2</a> during the period identified in rule <a href="#">S3.CD.5</a> as the period that cyanobacteria are most likely to be present (including October to May):</li> <li>(b) the source water must be tested for cyanotoxins that have a MAV, monthly during the period identified in rule <a href="#">S3.CD.5</a> as the period that cyanobacteria are most likely to be present (including October to May) and where cyanotoxins are identified, those cyanotoxins must be tested in water leaving the treatment plant in accordance with rules <a href="#">T3.CY.1(b)</a> and <a href="#">T3.CY.2</a>; or</li> <li>(c) the source water must be monitored by visual or other inspection for the presence of cyanobacteria mats during the period that cyanobacteria mats are likely to be present— <ol style="list-style-type: none"> <li>(i) weekly if the source has been assessed as having high likelihood in rule <a href="#">S3.CD.5</a>; or</li> <li>(ii) monthly if the source has been assessed as having medium likelihood in rule <a href="#">S3.CD.5</a>; and</li> <li>(iii) if benthic <i>Microcoleus</i> has been identified, either— <ol style="list-style-type: none"> <li>a. the water leaving the treatment plant must be tested for anatoxins in accordance with rule <a href="#">T3.CY.1(b)</a> and <a href="#">T3.CY.2</a>; or</li> <li>b. a mat coverage assessment must be undertaken and if mat cover exceeds 20% or floating mats are observed on the water surface or the edges of the stream, the source water must be tested monthly or treated water must be tested in accordance with rule <a href="#">T3.CY.1(b)</a> and <a href="#">T3.CY.2</a> for the presence of anatoxins; and</li> </ol> </li> </ol> </li> </ol>	<p>Rule type: Monitoring</p> <p>Compliance period: 1 month</p> <p>Reporting period: 1 month</p>

	<p>(iv) if benthic cyanobacteria other than <i>Microcoleus</i> are observed, mat samples must be analysed for cyanobacterial identification and if potential toxin-producing cyanobacteria are identified, either—</p> <ol style="list-style-type: none"> <li>a. the water leaving the treatment plant must be tested for the cyanotoxins produced by those cyanobacteria in accordance with rules <a href="#">T3.CY.1(b)</a> and <a href="#">T3.CY.2</a>; or</li> <li>b. monthly testing must be undertaken on the cyanobacterial mats for cyanotoxin production genes or relevant cyanotoxins (depending on the cyanobacterial species identified) or the source water must be tested for relevant cyanotoxins (depending on the cyanobacterial species identified); and</li> <li>c. if cyanotoxins or cyanotoxin production genes are identified from testing source water or benthic mats, the water leaving the treatment plant must be tested for those cyanotoxins in accordance with rules <a href="#">T3.CY.1(b)</a> and <a href="#">T3.CY.2</a>.</li> </ol>	
--	---	--

### T3 Level 3 Treatment Rules module

#### T3.B Bacteria and virus treatment rules

##### *T3.BC Bacteria and virus treatment common rules*

Rule number	Requirement	Parameters
<b>T3.BC.1</b>	All drinking water supplied must pass through a treatment plant and if Class B, Class B (Interim), Class C or Class D source water is used, fully comply with the relevant bacteria and virus rules to provide an effective barrier to bacterial and viral contaminants each day.	Rule type: Assurance Compliance period: 1 day Reporting period: 1 month
<b>T3.BC.2</b>	For Class B, Class B (Interim), Class C and Class D source waters, one or more of the following treatment options must be used to demonstrate bacteria and virus barrier compliance: <ol style="list-style-type: none"> <li>(a) FAC:</li> <li>(b) chlorine dioxide</li> <li>(c) ozone:</li> <li>(d) UV light.</li> </ol>	Rule type: Assurance Compliance period: 1 year Reporting period: 1 year

<b>T3.BC.3</b>	<p>Drinking water leaving a treatment plant (excluding for self-supplied buildings) must be continuously monitored for the following:</p> <ul style="list-style-type: none"> <li>(a) FAC (at a point after which chlorine has been well-mixed):</li> <li>(b) pH (at a point after which chlorine has been well-mixed):</li> <li>(c) turbidity (post treatment but may be prior to contact tanks).</li> </ul>	<p>Rule type: Assurance  Compliance period: 1 year  Reporting period: 1 year</p>
<b>T3.BC.4</b>	<p>Drinking water leaving a treatment plant (excluding for self-supplied buildings) must meet the following limits:</p> <ul style="list-style-type: none"> <li>(a) FACE of not less than 0.2 mg/L:</li> <li>(b) turbidity less than 5NTU for at least 98% of the time the plant is producing drinking water each day:</li> <li>(c) turbidity not exceeding 10NTU at any time.</li> </ul>	<p>Rule type: Monitoring  Compliance period: 1 day  Reporting period: 1 month</p>

*T3.BF Free Available Chlorine rules*

<b>Rule number</b>	<b>Requirement</b>	<b>Parameters</b>
<b>T3.BF.1</b>	<p>Drinking water treated by FAC treatment processes must be continuously monitored for the following:</p> <ul style="list-style-type: none"> <li>(a) turbidity (after the outlet of the contact tank, before the lime is dosed or where lime is used for post-treatment pH adjustment)</li> <li>(b) FAC (after the outlet of the contact tank):</li> <li>(c) pH (after the outlet of the contact tank):</li> <li>(d) FACE (calculated with FAC and pH):</li> <li>(e) flow (at the outlet of the contact tank, the inlet of the contact tank if a high-level outlet weir is installed or a calculated outlet flow based on inlet flow and contact level change):</li> <li>(f) contact tank level (if used to determine T<sub>10</sub> contact time and C.t value):</li> <li>(g) T<sub>10</sub> contact time:</li> <li>(h) C.t value.</li> </ul>	<p>Rule type: Assurance  Compliance period: 1 year  Reporting period: 1 year</p>
<b>T3.BF.2</b>	<p>Drinking water treated by FAC leaving the treatment plant must meet the following requirements:</p> <ul style="list-style-type: none"> <li>(a) chlorine C.t value must be at least 15 min.mg/L for at least 95% of the time the plant is producing drinking water each day:</li> </ul>	<p>Rule type: Monitoring  Compliance period: 1 day  Reporting period: 1 month</p>

	<p>(b) T<sub>10</sub> contact time must be demonstrated to be of at least 5 minutes:</p> <p>(c) turbidity must be less than 1.0 NTU for at least 95% of the time the plant is producing drinking water each day:</p> <p>(d) turbidity must not exceed 2.0 NTU for more than 15 consecutive minutes.</p>	
--	---	--

*T3.BD Chlorine dioxide rules*

Rule number	Requirement	Parameters
<b>T3.BD.1</b>	<p>Drinking water treated by chlorine dioxide treatment processes must be continuously monitored for the following:</p> <p>(a) chlorine dioxide residual (at the outlet of the contact tank - alternative monitoring sites may be used if the drinking water supplier can demonstrate that they provide equivalent accuracy to monitoring at the outlet of the contact tank);</p> <p>(b) turbidity (at a point immediately before or after the contact tank or point that can be shown to be equivalent, i.e. no significant change in turbidity);</p> <p>(c) flow (at the outlet of the contact tank or inlet of the contact tank, if a high-level outlet weir is installed);</p> <p>(d) temperature of water leaving the contact tank;</p> <p>(e) the water level in the contact tank (if not controlled at a constant level by a weir or similar);</p> <p>(f) T<sub>10</sub> contact time;</p> <p>(g) C.t value.</p>	<p>Rule type: Assurance</p> <p>Compliance period: 1 year</p> <p>Reporting period: 1 year</p>
<b>T3.BD.2</b>	<p>Drinking water treated by chlorine dioxide leaving the treatment plant must meet the following requirements:</p> <p>(a) the total chlorine dioxide dose used in the process must be less than 0.8 mg/l:</p> <p>(b) chlorine dioxide C.t value must be at least 33 min.mg/L for at least 95% of the time the plant is producing drinking water each day:</p> <p>(c) T<sub>10</sub> contact time must be demonstrated to be of at least 5 minutes:</p> <p>(d) turbidity must be less than 1.0 NTU for at least 95% of the time the plant is producing drinking water each day:</p> <p>(e) turbidity must not exceed 2.0 NTU for more than 15 consecutive minutes.</p>	<p>Rule type: Monitoring</p> <p>Compliance period: 1 day</p> <p>Reporting period: 1 month</p>

*T3.BO Ozone rules*

<b>Rule number</b>	<b>Requirement</b>	<b>Parameters</b>
<b>T3.BO.1</b>	<p>Drinking water treated by ozone treatment processes must be continuously monitored for the following:</p> <ul style="list-style-type: none"> <li>(a) ozone residual at the outlet of the contact tank (alternative monitoring sites may be used if the drinking water supplier can demonstrate that they improve the accuracy of the monitoring information):</li> <li>(b) turbidity (at a point immediately before or after the contact tank):</li> <li>(c) flow (at the outlet of the contact tank or inlet of the contact tank, if a high-level outlet weir is installed):</li> <li>(d) temperature of water leaving the contact tank:</li> <li>(e) the water level in the contact tank:</li> <li>(f) T<sub>10</sub> contact time:</li> <li>(g) C.t.</li> </ul>	<p>Rule type: Assurance Compliance period: 1 year Reporting period: 1 year</p>
<b>T3.BO.2</b>	<p>The following requirements must be met for turbidity and ozone:</p> <ul style="list-style-type: none"> <li>(a) turbidity of water leaving the contact tank must not exceed 5.0 NTU for the duration of any consecutive 15-minute period:</li> <li>(b) an ozone C.t value of at least 1.2 min.mg/L for at least 95% of the time the plant is producing drinking water each day.</li> </ul>	<p>Rule type: Monitoring Compliance period: 1 day Reporting period: 1 month</p>

*T3.BU UV rules*

<b>Rule number</b>	<b>Requirement</b>	<b>Parameters</b>
<b>T3.BU.1</b>	UV units must be validated to, and operated within the specifications of, a designated UV validation standard.	<p>Rule type: Assurance Compliance period: 1 year Reporting period: 1 year</p>
<b>T3.BU.2</b>	<p>Drinking water treated by UV light must be continuously monitored for the following:</p> <ul style="list-style-type: none"> <li>(a) UVT (at a point where water enters or leaves the UV unit(s), except UV units validated to NSF/ANSI 55 - Class A):</li> <li>(b) turbidity (at a point where water enters or leaves the UV unit(s), including upstream filter monitoring if there is no other process between the filters and the UV unit(s)):</li> </ul>	<p>Rule type: Assurance Compliance period: 1 year Reporting period: 1 year</p>

	<p>(c) UVI or UV dose (at the designated points in the UV unit as that used for certification/validation):</p> <p>(d) flow (at a point representative of water entering or leaving the units, which meets the relevant certification/validation requirements).</p>	
<b>T3.BU.3</b>	Water flow rate must be within the UV unit's certified flow range for at least a minimum RED dose of 40 mJ/cm <sup>2</sup> (or equivalent) for at least 95% of the time the UV unit(s) is/are operating each day.	<p>Rule type: Assurance</p> <p>Compliance period: 1 year</p> <p>Reporting period: 1 year</p>
<b>T3.BU.4</b>	A RED of not less than 40 mJ/cm <sup>2</sup> (or equivalent) must be achieved for not less than 95% of the time the UV unit(s) is/are producing drinking water each day.	<p>Rule type: Monitoring</p> <p>Compliance period: 1 day</p> <p>Reporting period: 1 month</p>
<b>T3.BU.5</b>	The RED delivered by a UV unit(s) must not be less than 40 mJ/cm <sup>2</sup> (or equivalent) for the duration of any consecutive 15-minute period.	<p>Rule type: Monitoring</p> <p>Compliance period: 1 day</p> <p>Reporting period: 1 month</p>
<b>T3.BU.6</b>	Turbidity of water entering the UV unit(s) when it is in service must not exceed 5.0 NTU for the duration of any consecutive 15-minute period.	<p>Rule type: Monitoring</p> <p>Compliance period: 1 day</p> <p>Reporting period: 1 month</p>
<b>T3.BU.7</b>	<p>UV units validated to USEPA UVDGM must calculate dose using—</p> <p>(a) UVI and flow, if a set-point dose approach is used; or</p> <p>(b) UVI, flow, and UVT, if a calculated dose approach is used.</p>	Rule type: Non-reporting
<b>T3.BU.8</b>	<p>UV units validated to DVGW; ÖNORM; or DIN must—</p> <p>(a) use monitored flow for UVI control; or</p> <p>(b) be run at full power; and</p> <p>(c) UVI and UVT must be more than the validated value for the respective flow.</p>	Rule type: Non-reporting
<b>T3.BU.9</b>	UV units validated to NSF/ANSI 55 – Class A must generate a fault when any parameter exceeds the validated value.	Rule type: Non-reporting
<b>T3.BU.10</b>	<p>UVI sensors must meet the following requirements:</p> <p>(a) duty UVI sensors must be—</p> <p>(i) checked at least every month against the reference sensor; and</p>	<p>Rule type: Assurance</p> <p>Compliance period: 1 year</p> <p>Reporting period: 1 year</p>

	<p>(ii) replaced if the difference between the duty and reference readings exceeds the manufacturer's specified limits:</p> <p>(b) a reference UVI sensor must—</p> <p style="padding-left: 20px;">(i) have been purchased in the last 24 months; or</p> <p style="padding-left: 20px;">(ii) be standardised at least every 12 months in accordance with the USEPA UVDGM or other traceable procedure:</p> <p>(c) after 24 months of use, the reference sensor may be used as a duty sensor and a new standardised sensor must be used as a reference sensor.</p>	
--	---	--

### T3.P Protozoa treatment rules

#### *T3.PC Protozoa treatment common rules*

Rule number	Requirement	Parameters
<b>T3.PC.1</b>	<p>All drinking water supplied must—</p> <p>(a) pass through a treatment plant; and</p> <p>(b) if Class C or Class D source water is used, fully comply with the relevant protozoa rules to provide an effective barrier to protozoal contaminants each day.</p>	<p>Rule type: Assurance</p> <p>Compliance period: 1 day</p> <p>Reporting period: 1 month</p>
<b>T3.PC.2</b>	<p>The following minimum levels of protozoa treatment must be met by treatment processes based on the source water class determined in <a href="#">rule 8 (Level 3 source water classes)</a>:</p> <p>(a) Class A, Class A (Interim), Class B, Class B (Interim): 0-log (protozoa treatment not required):</p> <p>(b) Class C: 3-log:</p> <p>(c) Class D: 4-log.</p>	<p>Rule type: Assurance</p> <p>Compliance period: 1 year</p> <p>Reporting period: 1 year</p>
<b>T3.PC.3</b>	<p>Class C and Class D source water must be treated to control protozoa to the level determined in rule <a href="#">T3.PC.2</a> by one or more of the following treatment processes:</p> <p>(a) coagulation and direct filtration (2.5-log and 3.0-log):</p> <p>(b) coagulation, flocculation, sedimentation (includes dissolved air floatation), and filtration (3.0-log to 4-log):</p> <p>(c) cartridge filtration (2.0-log):</p> <p>(d) membrane filtration (up to 4.0-log):</p>	<p>Rule type: Assurance</p> <p>Compliance period: 1 year</p> <p>Reporting period: 1 year</p>

	<p>(e) ozone (3.0-log);</p> <p>(f) UV light (3.0-log or 4.0-log).</p>	
<b>T3.PC.4</b>	<p>Where multiple treatment processes are used to meet log credit requirements, cumulative log credits can be calculated if the processes include—</p> <p>(a) one filtration process recognised under rule <a href="#">T3.PC.3(a) to (d)</a>; and</p> <p>(b) one disinfection process recognised under rule <a href="#">T3.PC.3(e) or (f)</a>.</p>	Rule type: Non-reporting
<b>T3.PC.5</b>	<p>The following requirements apply to recycling of water from run to waste and treatment processes:</p> <p>(a) water recycled from filter backwash, thickening and dewatering processes must—</p> <ol style="list-style-type: none"> <li>(i) undergo effective solids/liquid separation; and</li> <li>(ii) water recovered from the solids/liquid separation process must be monitored for turbidity to demonstrate that the process has been effective:</li> </ol> <p>(b) recovered water from the solids/liquids separation process may be discharged to raw water storage, if the total recovered water volume in the raw water storage is less than 20% of the stored raw water volume at any time:</p> <p>(c) recovered water from the solids/liquids separation process may be returned prior to the first stage of the treatment process if—</p> <ol style="list-style-type: none"> <li>(i) it undergoes the full treatment process; and</li> <li>(ii) it is subject to flow equalisation demonstrated by continuous monitoring so that— <ol style="list-style-type: none"> <li>a. the instantaneous total recycled water return rate does not exceed 10% of the plant inflow; or</li> <li>b. one or more metrics developed by a suitably qualified and experienced person and recorded in writing ensures the volumetric ratio of recycle water to raw water and/or plant inflow does not exceed 10% for more than 95% of each day or 15% for more than 15 consecutive minutes; and</li> </ol> </li> <li>(iii) it does not detrimentally affect treatment processes downstream of the recycling return point:</li> </ol> <p>(d) filter (media or membrane) run to waste water may be returned to the treatment process at any stage of the treatment process upstream of the coagulant dosing point:</p>	<p>Rule type: Assurance</p> <p>Compliance period: 1 year</p> <p>Reporting period: 1 year</p>

	(e) filter clean in place (CIP) chemical wash water must not be recycled to the treatment plant but may be reused for CIP processes.	
--	--	--

*T3.PD Coagulation and direct filtration rules [2.5-Log]*

Rule number	Requirement	Parameters
T3.PD.1	Filtration must be of a rapid media design (pressure or gravity).	Rule type: Non-reporting
T3.PD.2	The turbidity of filtered water must be continuously monitored on the outlet of each filter while it is in service.	Rule type: Assurance Compliance period: 1 year Reporting period: 1 year
T3.PD.3	The turbidity of filtered water leaving any filter must not exceed the following limits: (a) 0.3 NTU for more than 5% of the time the filter is in operation each day: (b) 0.5 NTU for the duration of any consecutive 15-minute period in each day.	Rule type: Monitoring Compliance period: 1 day Reporting period: 1 month

*T3.PD Coagulation and direct filtration rules [3.0-Log]*

Rule number	Requirement	Parameters
T3.PD.4	Filtration must be of a rapid media design (pressure or gravity).	Rule type: Non-reporting
T3.PD.5	The turbidity of filtered water must be continuously monitored on the outlet of each filter while it is in service.	Rule type: Assurance Compliance period: 1 year Reporting period: 1 year
T3.PD.6	The turbidity of filtered water leaving any filter must not exceed the following limits: (a) 0.15 NTU for more than 5% of the time the filter is in operation each day: (b) 0.5 NTU for the duration of any consecutive 15-minute period in each day.	Rule type: Monitoring Compliance period: 1 day Reporting period: 1 month

*T3.PF Coagulation, flocculation, sedimentation and filtration rules [3-Log]*

Rule number	Requirement	Parameters
T3.PF.1	Filtration must be of a rapid media design (pressure or gravity).	Rule type: Non-reporting

<b>T3.PF.2</b>	The turbidity of filtered water must be continuously monitored on the outlet of each filter while it is in service.	Rule type: Assurance Compliance period: 1 year Reporting period: 1 year
<b>T3.PF.3</b>	The turbidity of filtered water leaving any filter must not exceed the following limits: (a) 0.3 NTU for more than 5% of the time the filter is in operation each day: (b) 0.5 NTU for the duration of any consecutive 15-minute period in each day.	Rule type: Monitoring Compliance period: 1 day Reporting period: 1 month

*T3.PF Coagulation, flocculation, sedimentation and filtration rules [3.5-Log]*

<b>Rule number</b>	<b>Requirement</b>	<b>Parameters</b>
<b>T3.PF.4</b>	Filtration must be of a rapid media design (pressure or gravity).	Rule type: Non-reporting
<b>T3.PF.5</b>	The turbidity of filtered water must be continuously monitored on the outlet of each filter while it is in service.	Rule type: Assurance Compliance period: 1 year Reporting period: 1 year
<b>T3.PF.6</b>	The turbidity of filtered water leaving any filter must not exceed the following limits: (a) 0.15 NTU for more than 5% of the time the filter is in operation each day: (b) 0.5 NTU for the duration of any consecutive 15-minute period in each day.	Rule type: Monitoring Compliance period: 1 day Reporting period: 1 month

*T3.PF Coagulation, flocculation, sedimentation and filtration rules [4-Log]*

<b>Rule number</b>	<b>Requirement</b>	<b>Parameters</b>
<b>T3.PF.7</b>	Filtration must be of a rapid media design (pressure or gravity).	Rule type: Non-reporting
<b>T3.PF.8</b>	The turbidity of filtered water must be continuously monitored on the outlet of each filter while it is in service.	Rule type: Assurance Compliance period: 1 year Reporting period: 1 year
<b>T3.PF.9</b>	The turbidity of filtered water leaving any filter must not exceed the following limits: (a) 0.1 NTU for more than 5% of the time the filter is in operation each day: (b) 0.3 NTU for the duration of any consecutive 15-minute period in each day.	Rule type: Monitoring Compliance period: 1 day Reporting period: 1 month

*T3.PA Cartridge filtration rules [2-Log]*

Rule number	Requirement	Parameters
<b>T3.PA.1</b>	<p>The following requirements must be met where cartridge filtration is used:</p> <ul style="list-style-type: none"> <li>(a) pumps must not be connected directly to the discharge side of any cartridge filter:</li> <li>(b) where pumping occurs after filtration, the filtrate must first discharge directly to a tank:</li> <li>(c) differential pressure must be measured across each cartridge filter and must not exceed the cartridge filter manufacturer's specifications:</li> <li>(d) the flow through any filters (measured on the inlet or outlet of each filtration housing) must be within the manufacturer's design specifications for the treatment processes at all times:</li> <li>(e) the minimum differential pressure must always exceed the differential pressure established at commissioning with a new cartridge:</li> <li>(f) individual cartridges must be able to be clearly identified in relation to the manufacturer and the part number that relates to the validation/certification.</li> </ul>	<p>Rule type: Assurance  Compliance period: 1 year  Reporting period: 1 year</p>
<b>T3.PA.2</b>	<p>The turbidity of filtered water from each filter housing must—</p> <ul style="list-style-type: none"> <li>(a) be continuously monitored on the combined inlet to the process; and</li> <li>(b) be continuously monitored on the outlet of each filtration housing.</li> </ul>	<p>Rule type: Assurance  Compliance period: 1 year  Reporting period: 1 year</p>
<b>T3.PA.3</b>	<p>The turbidity of filtered water from each filter housing must—</p> <ul style="list-style-type: none"> <li>(a) not exceed 1.0 NTU for more than 5% of the time the filter is in operation each day; and</li> <li>(b) not exceed 1.0 NTU for the duration of any consecutive 15-minute period; and</li> <li>(c) not exceed the turbidity of the cartridge feed water for the duration of any consecutive 15-minute period (exceedances of not more than 2% are allowable to take account of measurement accuracy).</li> </ul>	<p>Rule type: Monitoring  Compliance period: 1 day  Reporting period: 1 month</p>

<b>T3.PA.4</b>	<p>Each filtration cartridge must have a certified cryptosporidium (oo)cyst removal efficiency of at least 3-log and be certified/validated to one of the following:</p> <ul style="list-style-type: none"> <li>(a) the USEPA (2010) Long Term 2 Enhanced Surface Water Treatment Rule: Toolbox Guidance Manual Part 8: Bag and Cartridge Filters:</li> <li>(b) the (oo)cyst reduction conditions of Drinking Water Treatment Units: Health effects, NSF/ANSI 53 (NSF, ANSI 2002):</li> <li>(c) the (oo)cyst removal requirements of AS/NZS 4348:1995 in conjunction with AS/NZS 3497:1998 (updated 2001)).</li> </ul>	<p>Rule type: Assurance Compliance period: 1 year Reporting period: 1 year</p>
----------------	--	--

*T3.PM Membrane (microfiltration/ultrafiltration) filtration rules [up to 4-Log]*

<b>Rule number</b>	<b>Requirement</b>	<b>Parameters</b>
<b>T3.PM.1</b>	<p>The following requirements must be met where membrane filtration is used:</p> <ul style="list-style-type: none"> <li>(a) direct integrity tests must be performed on each membrane filtration unit at least daily if the membrane filtration unit has been in service at any point during the day (midnight to midnight):</li> <li>(b) direct integrity tests must be performed on any membrane unit that has been out of service for maintenance, or any other reason (not including normal operational modes, for example, stand-by and backwashing), for more than 6 hours before the unit is returned to service:</li> <li>(c) direct integrity tests must be performed on any membrane unit if the turbidity of filtrate from that unit exceeds 0.1 NTU for more than 15 minutes:</li> <li>(d) no membrane unit may be used if it has failed its direct integrity test:</li> <li>(e) turbidity of filtered water of each membrane unit (rack, train or cell) must be continuously monitored.</li> </ul>	<p>Rule type: Assurance Compliance period: 1 year Reporting period: 1 year</p>
<b>T3.PM.2</b>	<p>Filtered water from each membrane unit must not exceed the following limits:</p> <ul style="list-style-type: none"> <li>(a) 0.1 NTU for more than 15 consecutive minutes:</li> <li>(b) 1.0 NTU at any time.</li> </ul>	<p>Rule type: Monitoring Compliance period: 1 day Reporting period: 1 month</p>

<b>T3.PM.3</b>	Membranes must be certified/validated/verified to comply with NSF/ANSI 61: Drinking Water System Components – Health Effects and NSF/ANSI 419 Public Drinking Water Equipment Performance – Filtration or equivalent.	Rule type: Non-reporting
<b>T3.PM.4</b>	Membranes must be operated— (a) to achieve only the log credits that the validation specifies; and (b) according to the operational requirements under which the membranes have been validated; and (c) so that when a direct integrity test is undertaken, a 3µm hole affects the membrane filtration unit's response to the test.	Rule type: Assurance Compliance period: 1 year Reporting period: 1 year

*T3.PO Ozone rules [0.25 to 3.0-Log]*

<b>Rule number</b>	<b>Requirement</b>	<b>Parameters</b>
<b>T3.PO.1</b>	Drinking water treated by ozone disinfection must be continuously monitored for the following: (a) ozone residual at the outlet of the contact tank (alternative monitoring sites may be used if the drinking water supplier can demonstrate that they improve the accuracy of the monitoring information); (b) turbidity (at a point immediately before or after the contact tank); (c) flow (at the outlet of the contact tank or inlet of the contact tank, if a high-level outlet weir is installed); (d) temperature of water leaving the contact tank; (e) the water level in the contact tank; (f) T <sub>10</sub> Contact Time; (g) C.t.	Rule type: Assurance Compliance period: 1 year Reporting period: 1 year
<b>T3.PO.2</b>	The following requirements must be met where ozone disinfection is used: (a) turbidity of water leaving the contact tank must not exceed 5.0 NTU for the duration of any consecutive 15-minute period; (b) the C.t and water temperature required for the log credit claimed (see Table 1) must be achieved for more than 95% of the time the plant is producing drinking water to be distributed to consumers each day:	Rule type: Monitoring Compliance period: 1 day Reporting period: 1 month

	(c) the C.t and water temperature must not be less than 80% of the values required for the log credit claimed (see Table 1) for the duration of any consecutive 15-minute period.	
--	---	--

**Table 1: C.t values (min.mg/L) for cryptosporidium inactivation by ozone valid for ozone concentrations in the range 0.2-5.0mg/L**

Log credit	Water temperature (°C)*					
	*C.t values between the indicated temperatures may be determined by interpolation					
	1	5	10	15	20	25
3.0	69	47	30	19	12	7.4

*T3.PU UV rules [3-log or 4-Log]*

Rule number	Requirement	Parameters
<b>T3.PU.1</b>	UV units must be validated to meet the protozoa log credits required from the UV unit, and operated within the specifications of, a designated UV validation standard.	Rule type: Assurance Compliance period: 1 year Reporting period: 1 year
<b>T3.PU.2</b>	Drinking water treated by UV light must be continuously monitored for the following: (a) UVT (at a point where water enters or leaves the UV unit(s) except UV units validated to NSF/ANSI 55 - Class A): (b) turbidity (at a point before the water enters or leaves the UV unit(s), including upstream filter monitoring if there is no other process between the filters and the UV unit(s)): (c) UVI or UV dose (at the designated points in the UV unit as that used for certification/verification): (d) flow (at a point representative of water entering or leaving the units, which meets the relevant certification/validation requirements).	Rule type: Assurance Compliance period: 1 year Reporting period: 1 year
<b>T3.PU.3</b>	Water flow rate must be within the UV units certified flow range for the claimed log credit at least 95% of the time the UV unit(s) is/are operating each day.	Rule type: Assurance Compliance period: 1 year Reporting period: 1 year
<b>T3.PU.4</b>	A RED of not less than that the validated dose for the log credits claimed must be achieved for not less than 95% of the time the UV unit(s) is/are producing drinking water each day.	Rule type: Monitoring Compliance period: 1 day Reporting period: 1 month

<b>T3.PU.5</b>	The RED delivered by a UV unit(s) must not be less than the validated dose for the protozoa log credits claimed for the duration of any consecutive 15-minute period.	Rule type: Monitoring Compliance period: 1 day Reporting period: 1 month
<b>T3.PU.6</b>	Turbidity of water entering the UV unit(s) when it is in service must not exceed 5.0 NTU for the duration of any consecutive 15-minute period.	Rule type: Monitoring Compliance period: 1 day Reporting period: 1 month
<b>T3.PU.7</b>	UV units validated to USEPA UVDGM must calculate dose using— (a) UVI and flow, if set-point dose approach is used; or (b) UVI, flow, and UVT, if calculated dose approach used.	Rule type: Non-reporting
<b>T3.PU.8</b>	UV units validated to DVGW; ÖNORM; or DIN must— (a) use monitored flow for UVI control; or (b) be run at full power; and (c) UVI and UVT must be more than the validated value for the respective flow.	Rule type: Non-reporting
<b>T3.PU.9</b>	UV units validated to NSF/ANSI 55 – Class A must generate a fault when any parameter exceeds the validated value.	Rule type: Non-reporting
<b>T3.PU.10</b>	UVI sensors must meet the following requirements: (a) a duty UVI sensor must be— (i) checked at least every month against the reference sensor; and (ii) replaced if the difference between the duty and reference readings exceeds the manufacturer’s specified limits: (b) a reference UVI sensor must— (i) have been purchased in the last 24 months; or (ii) be standardised at least every 12 months in accordance with the USEPA UVDGM or other traceable procedure: (c) after 24 months of use, the reference sensor may be used as a duty sensor and a new standardised sensor must be used as a reference sensor.	Rule type: Assurance Compliance period: 1 year Reporting period: 1 year

### T3.CH Chemical monitoring rules

Rule number	Requirement	Parameters
<b>T3.CH.1</b>	<p>Any chemical dosed into the drinking water supply (excluding on-site generated sodium hypochlorite and chlorine dioxide) must be demonstrated to be safe for use in drinking water by either—</p> <p>(a) a certificate of analysis for each batch used including the following information:</p> <p style="margin-left: 20px;">(i) an analysis of all chemicals and potential impurities in the product;</p> <p style="margin-left: 20px;">(ii) the purity of each chemical by mass or volume (ppm, concentration or percentage);</p> <p style="margin-left: 20px;">or</p> <p>(b) a certificate of conformance to a specified standard for the chemical.</p>	<p>Rule type: Assurance</p> <p>Compliance period: 1 year</p> <p>Reporting period: 1 year</p>
<b>T3.CH.2</b>	<p>(a) A schedule of all chemicals that are used for treatment and chemicals that may be formed in the treatment process must be prepared.</p> <p>(b) The schedule prepared under (a) must identify which of those chemicals have a MAV.</p>	<p>Rule type: Assurance</p> <p>Compliance period: 1 year</p> <p>Reporting period: 1 year</p>
<b>T3.CH.3</b>	<p>(a) Water must be monitored (excluding for chlorine and fluoride) at a point after the treatment processes (including contact tanks) at least every month for—</p> <p style="margin-left: 20px;">(i) chemicals identified in source water monitoring that exceed their MAV; and</p> <p style="margin-left: 20px;">(ii) chemicals on the schedule prepared under rule <a href="#">T3.CH.2</a> that have a MAV; and</p> <p>(b) Where 12 consecutive sampling results for a determinand under (a) are not more than 50% of the MAV, sampling may reduce to every twelve months, but if a result exceeds 50% of the MAV, monthly sampling must resume under (a).</p>	<p>Rule type: Monitoring</p> <p>Compliance period: 1 month</p> <p>Reporting period: 1 month</p>
<b>T3.CH.4</b>	<p>(a) Where sodium hypochlorite solution is used for disinfection, water leaving the treatment plant must be monitored for chlorate at least every week.</p> <p>(b) Where 12 consecutive sampling results under (a) are not more than 50% of the MAV, sampling may reduce to every month, but if a result exceeds 50% of the MAV, sampling must return to weekly under (a).</p>	<p>Rule type: Monitoring</p> <p>Compliance period: 1 month</p> <p>Reporting period: 1 month</p>

<b>T3.CH.5</b>	<p>(a) Where chlorine dioxide is used for disinfection, water leaving the treatment plant must be monitored for chlorite and chlorate at least every week.</p> <p>(b) Where 12 consecutive sampling results under (a) are not more than 50% of the MAV, sampling may reduce to every month, but if a result exceeds 50% of the MAV, sampling must return to weekly under (a).</p>	<p>Rule type: Monitoring</p> <p>Compliance period: 1 month</p> <p>Reporting period: 1 month</p>
<b>T3.CH.6</b>	<p>If fluoride is added as part of the treatment process, it must be monitored continuously after the fluoride chemical is fully mixed.</p>	<p>Rule type: Assurance</p> <p>Compliance period: 1 year</p> <p>Reporting period: 1 year</p>

### T3.CY      Cyanotoxin monitoring rules

<b>Rule number</b>	<b>Requirement</b>	<b>Parameters</b>
<b>T3.CY.1</b>	<p>If testing of water leaving a treatment plant is required under rules <a href="#">S3.CD.7</a> and/or <a href="#">S3.CD.8</a> it must be monitored monthly for —</p> <p>(a) cyanotoxins that have a MAV; or</p> <p>(b) any specific cyanotoxin(s) that have a MAV and have been identified in source water testing or through cyanotoxin production gene(s) testing under rules <a href="#">S3.CD.7</a> and/or <a href="#">S3.CD.8</a>.</p>	<p>Rule type: Monitoring</p> <p>Compliance period: 1 month</p> <p>Reporting period: 1 month</p>
<b>T3.CY.2</b>	<p>If any cyanotoxins that have a MAV are detected in monitoring from rule <a href="#">T3.CY.1</a>, water leaving the treatment plant must be monitored at the following frequencies:</p> <p>(a) weekly if any cyanotoxins are detected at not more than 25% of the respective MAV;</p> <p>(b) twice weekly if any cyanotoxins are between 25% and 50% of the respective MAV;</p> <p>(c) daily if any cyanotoxins exceed 50% of the respective MAV.</p>	<p>Rule type: Assurance</p> <p>Compliance period: 1 year</p> <p>Reporting period: 1 year</p>

## D3 Level 3 Distribution Rules module

### D3.BF Backflow protection rules

Rule number	Requirement	Parameters
<b>D3.BF.1</b>	<p>A backflow prevention programme to protect a distribution system against the risk of backflow must be—</p> <p>(a) prepared by a suitably qualified and experienced person; and</p> <p>(b) under implementation; and</p> <p>(c) recorded in writing.</p>	<p>Rule type: Assurance</p> <p>Compliance period: 1 year</p> <p>Reporting period: 1 year</p>
<b>D3.BF.2</b>	<p>A survey of backflow risks to each distribution zone must be undertaken at least every five years to—</p> <p>(a) determine medium and high-risk sites; and</p> <p>(b) assess the adequacy of backflow protection across the distribution system.</p>	<p>Rule type: Assurance</p> <p>Compliance period: 1 year</p> <p>Reporting period: 1 year</p>
<b>D3.BF.3</b>	<p>Where backflow requirements at a point of supply are deemed inadequate, the drinking water supplier must—</p> <p>(a) notify the relevant local authority with details of the situation and risk; and</p> <p>(b) determine the type of backflow device that should be installed at the point of supply; and</p> <p>(c) ensure the appropriate backflow device is installed as soon as reasonably practicable.</p>	<p>Rule type: Non-reporting</p>
<b>D3.BF.4</b>	<p>All testable backflow prevention devices installed at a point of supply specifically to protect a distribution system (generally boundary devices) must be tested by a suitably qualified and experienced person at least every 12 months.</p>	<p>Rule type: Assurance</p> <p>Compliance period: 1 year</p> <p>Reporting period: 1 year</p>
<b>D3.BF.5</b>	<p>A drinking water supplier must maintain a register of all points of supply with testable backflow protection devices for each distribution zone, including at least the following information:</p> <p>(a) location:</p> <p>(b) device type:</p> <p>(c) assessed risk level:</p> <p>(d) test results.</p>	<p>Rule type: Assurance</p> <p>Compliance period: 1 year</p> <p>Reporting period: 1 year</p>

<b>D3.BF.6</b>	<p>A drinking water supplier must not permit access to a distribution system through use of a standpipe, except by any of the following people:</p> <ul style="list-style-type: none"> <li>(a) employees of the supplier;</li> <li>(b) agents or contractors of the supplier carrying out reasonably necessary work on the supply;</li> <li>(c) Fire and Emergency New Zealand;</li> <li>(d) other emergency services.</li> </ul>	<p>Rule type: Assurance  Compliance period: 1 year  Reporting period: 1 year</p>
----------------	---	--

### D3.HP New and repaired watermains hygiene procedures

<b>Rule number</b>	<b>Requirement</b>	<b>Parameters</b>
<b>D3.HP.1</b>	<p>Before carrying out or commissioning repairs to pipes in a distribution system, a drinking water supplier must—</p> <ul style="list-style-type: none"> <li>(a) undertake a risk assessment to determine the risk of contamination of the distribution zone; and</li> <li>(b) determine procedures required to minimise the risk; and</li> <li>(c) record (a) and (b) in writing.</li> </ul>	<p>Rule type: Assurance  Compliance period: 1 year  Reporting period: 1 year</p>
<b>D3.HP.2</b>	<p>All materials used in construction and repairs in a distribution system must—</p> <ul style="list-style-type: none"> <li>(a) be free of visible contamination; and</li> <li>(b) remain protected from contamination until installation.</li> </ul>	<p>Rule type: Non-reporting</p>
<b>D3.HP.3</b>	<p>All tools contacting any part of a distribution system must be adequately disinfected—</p> <ul style="list-style-type: none"> <li>(a) prior to commencing work; and</li> <li>(b) after contact with soil or backfill material.</li> </ul>	<p>Rule type: Non-reporting</p>
<b>D3.HP.4</b>	<p>Disinfection of mains pipes must follow best management practices including but not limited to methods such as tablet, slug, spray chlorination, or equivalent.</p>	<p>Rule type: Assurance  Compliance period: 1 year  Reporting period: 1 year</p>
<b>D3.HP.5</b>	<p>Standard operating procedures for planned and unplanned repairs in a distribution system must be—</p> <ul style="list-style-type: none"> <li>(a) developed; and</li> <li>(b) implemented; and</li> <li>(c) recorded in writing.</li> </ul>	<p>Rule type: Assurance  Compliance period: 1 year  Reporting period: 1 year</p>

## D3.FO Facilities operation / maintenance and disinfection rules

Rule number	Requirement	Parameters
<b>D3.FO.1</b>	<p>A drinking water storage management plan for a distribution system that includes storage must—</p> <ul style="list-style-type: none"> <li>(a) be developed; and</li> <li>(b) be under implementation; and</li> <li>(c) be recorded in writing; and</li> <li>(d) include at least all of the following: <ul style="list-style-type: none"> <li>(i) minimum and maximum operating levels:</li> <li>(ii) target turnover rates:</li> <li>(iii) inspection:</li> <li>(iv) security measures:</li> <li>(v) protection from contamination:</li> <li>(vi) cleaning.</li> </ul> </li> </ul>	<p>Rule type: Assurance  Compliance period: 1 year  Reporting period: 1 year</p>
<b>D3.FO.2</b>	<p>Inspections of drinking water storage facilities in a distribution system must be carried out at least every 12 months, and—</p> <ul style="list-style-type: none"> <li>(a) identify of any points of potential ingress by contaminants; and</li> <li>(b) identify any signs of actual security breaches and contamination incidents; and</li> <li>(c) be recorded in writing.</li> </ul>	<p>Rule type: Assurance  Compliance period: 1 year  Reporting period: 1 year</p>
<b>D3.FO.3</b>	<p>Disinfection procedures for drinking water storage facilities that are consistent with industry best management practices must be—</p> <ul style="list-style-type: none"> <li>(a) developed; and</li> <li>(b) implemented; and</li> <li>(c) recorded in writing.</li> </ul>	<p>Rule type: Assurance  Compliance period: 1 year  Reporting period: 1 year</p>
<b>D3.FO.4</b>	<p>All new drinking water storage facilities, and existing storage facilities that have been drained for maintenance purposes, prior to being brought (back) into use, must be—</p> <ul style="list-style-type: none"> <li>(a) cleaned; and</li> <li>(b) disinfected; and</li> <li>(c) tested for <i>E. coli</i>.</li> </ul>	<p>Rule type: Assurance  Compliance period: 1 year  Reporting period: 1 year</p>

<b>D3.FO.5</b>	Divers' suits, rafts, remotely operated vehicles and other materials used during inspection, maintenance or other activities inside drinking water storage facilities must be made from materials acceptable for contact with drinking water and suitable for disinfection.	Rule type: Non-reporting
<b>D3.FO.6</b>	All equipment and materials entering drinking water storage facilities must be disinfected immediately prior to entry according to industry best management practices.	Rule type: Non-reporting

### D3.RD Residual disinfection / disinfection byproducts and plumbosolvent metals rules

<b>Rule number</b>	<b>Requirement</b>	<b>Parameters</b>
<b>D3.RD.1</b>	FAC monitoring in a distribution zone must be undertaken in compliance with— (a) rules <a href="#">D3.RD.3</a> , <a href="#">D3.RD.4</a> and <a href="#">D3.RD.5</a> for grab sampling; or (b) rules <a href="#">D3.RD.3</a> , <a href="#">D3.RD.6</a> , <a href="#">D3.RD.7</a> and <a href="#">D3.RD.8</a> for continuous monitoring.	Rule type: Non-reporting
<b>D3.RD.2</b>	A sampling plan for disinfection, disinfection by-products and plumbosolvent metals in a distribution system must— (a) be prepared; and (b) be implemented; and (c) be recorded in writing; and (d) include— (i) a system map indicating sampling locations; and (ii) response procedures to be followed when sample test results do not meet prescribed levels.	Rule type: Assurance Compliance period: 1 year Reporting period: 1 year
<b>D3.RD.3</b>	FAC must be maintained in each distribution zone to meet the following limits— (a) FAC is at least 0.2mg/L in more than 85% of grab samples; or (b) FAC is at least 0.2 mg/L for more than 85% of each day for all continuous monitoring; and (c) FAC is no less than 0.1 mg/L at all times for grab samples or continuous monitoring.	Rule type: Monitoring Compliance period: 1 month for grab sampling 1 day for continuous monitoring Reporting period: 1 month

<p><b>D3.RD.4</b></p>	<p>Drinking water suppliers that have elected the grab sampling option, must prepare a FAC sampling schedule for each distribution zone to meet the following sampling frequencies for the population size:</p> <ul style="list-style-type: none"> <li>(a) for a distribution zone population of no more than 25,000,— <ul style="list-style-type: none"> <li>(i) at least 12 samples analysed every month; and</li> <li>(ii) no more than 4 days elapsed between consecutive samples; and</li> <li>(iii) samples collected on at least five different days of the week:</li> </ul> </li> <li>(b) for a distribution zone population of 25,001-50,000,— <ul style="list-style-type: none"> <li>(i) at least 16 samples analysed every month; and</li> <li>(ii) no more than 3 days elapsed between consecutive samples; and</li> <li>(iii) samples collected on at least six different days of the week:</li> </ul> </li> <li>(c) for a distribution zone population of 50,001-100,000,— <ul style="list-style-type: none"> <li>(i) at least 20 samples analysed every month; and</li> <li>(ii) no more than 2 days elapsed between consecutive samples; and</li> <li>(iii) samples collected on at least six different days of the week:</li> </ul> </li> <li>(d) for a distribution zone population of more than 100,000,— <ul style="list-style-type: none"> <li>(i) 24 samples analysed every month; and</li> <li>(ii) no more than 2 days elapsed between consecutive samples; and</li> <li>(iii) samples collected on seven different days of the week.</li> </ul> </li> </ul>	<p>Rule type: Assurance  Compliance period: 1 year  Reporting period: 1 year</p>
<p><b>D3.RD.5</b></p>	<p>Routine sampling sites for monitoring for compliance with rules <a href="#">D3.RD.3</a> and <a href="#">D3.RD.4</a> must be located to—</p> <ul style="list-style-type: none"> <li>(a) adequately represent water quality across a distribution zone; and</li> <li>(b) include both peripheral and central locations in the distribution zone; and</li> <li>(c) include areas with higher risk of deterioration in drinking water quality occurs and population density is highest.</li> </ul>	<p>Rule type: Assurance  Compliance period: 1 year  Reporting period: 1 year</p>

<b>D3.RD.6</b>	<p>For water suppliers that have elected to use the continuous monitoring option, the number of continuous monitoring analysers for FAC installed in each distribution zone must be at least—</p> <ul style="list-style-type: none"> <li>(a) two analysers per zone for a zone population up to 25,000; or</li> <li>(b) three analysers per zone for a zone population of 25,001-100,000; or</li> <li>(c) four analysers per zone for a population of more than 100,000.</li> </ul>	<p>Rule type: Assurance  Compliance period: 1 year  Reporting period: 1 year</p>
<b>D3.RD.7</b>	<p>Continuous monitoring analysers for FAC must be installed in at least the following places in each distribution zone:</p> <ul style="list-style-type: none"> <li>(a) the point where drinking water is provided to a distribution zone, for example, a reservoir outlet or bulk point of supply; and</li> <li>(b) a point in the supply main near to— <ul style="list-style-type: none"> <li>(i) the centre of the distribution zone; or</li> <li>(ii) the extremity of the distribution zone.</li> </ul> </li> </ul>	<p>Rule type: Assurance  Compliance period: 1 year  Reporting period: 1 year</p>
<b>D3.RD.8</b>	<p>The representative nature of the continuous monitoring results in a distribution zone must be verified by the following requirements:</p> <ul style="list-style-type: none"> <li>(a) at least four FAC and pH samples analysed every month:</li> <li>(b) samples are taken during at least four different weeks of each month:</li> <li>(c) all samples are taken from the outer extent of the distribution zone at times of normal demand.</li> </ul>	<p>Rule type: Assurance  Compliance period: 1 year  Reporting period: 1 year</p>
<b>D3.RD.9</b>	<ul style="list-style-type: none"> <li>(a) Drinking water in each distribution zone must be monitored at least every three months for the following: <ul style="list-style-type: none"> <li>(i) chloroform:</li> <li>(ii) bromodichloromethane:</li> <li>(iii) dibromochloromethane:</li> <li>(iv) bromoform:</li> <li>(v) dichloroacetic acid:</li> <li>(vi) trichloroacetic acid.</li> </ul> </li> <li>(b) Where two compliance years of three-monthly sampling results for any determinand under (a) are not more than 50% of the MAV, monitoring may reduce to yearly, but if a result exceeds 50% of a MAV, monitoring must return to at least every three months under (a).</li> </ul>	<p>Rule type: Monitoring  Compliance period: 1 year  Reporting period: 1 year</p>
<b>D3.RD.10</b>	<p>Sampling sites for monitoring of disinfection by-products under rule <a href="#">D3.RD.9</a> must be alternated between peripheral and central locations of the distribution zone.</p>	<p>Rule type: Non-reporting</p>

<b>D3.RD.11</b>	<p>The following monitoring must be undertaken for plumbosolvent metals in each distribution zone:</p> <p>(a) drinking water in each distribution zone must be sampled twice per compliance year at least 6 months apart for the following:</p> <ul style="list-style-type: none"> <li>(i) antimony:</li> <li>(ii) cadmium:</li> <li>(iii) chromium:</li> <li>(iv) copper:</li> <li>(v) lead:</li> <li>(vi) mercury:</li> <li>(vii) nickel:</li> <li>(viii) zinc:</li> </ul> <p>(b) any determinand under (a) that exceeds 50% of its MAV must be monitored monthly:</p> <p>(c) if 12 consecutive monthly sampling results under (b) are not more than 50% of the MAV, monitoring may return to six-monthly under (a).</p>	<p>Rule type: Monitoring  Compliance period: 1 month  Reporting period: 1 year</p>
-----------------	--	--

### D3.MM Microbiological monitoring rules

Rule number	Requirement	Parameters
<b>D3.MM.1</b>	<p>A sampling plan for microbiological monitoring in a distribution system must—</p> <p>(a) be developed; and</p> <p>(b) be implemented; and</p> <p>(c) be recorded in writing; and</p> <p>(d) include—</p> <ul style="list-style-type: none"> <li>(i) a system map indicating sampling locations; and</li> <li>(ii) a response plan for positive test results.</li> </ul>	<p>Rule type: Assurance  Compliance period: 1 year  Reporting period: 1 year</p>
<b>D3.MM.2</b>	<p>Drinking water suppliers must prepare a microbiological determinands sampling schedule for each distribution zone to meet the following sampling frequencies:</p> <p>(a) for a distribution zone population of no more than 25,000,—</p> <ul style="list-style-type: none"> <li>(i) four samples per month; and</li> <li>(ii) with maximum interval between samples of nine days; and</li> <li>(iii) with a minimum number of five days of the week used:</li> </ul> <p>(b) for a distribution zone population of 25,001-50,000,—</p>	<p>Rule type: Assurance  Compliance period: 1 year  Reporting period: 1 year</p>

	<ul style="list-style-type: none"> <li>(i) four samples per month; and</li> <li>(ii) with a maximum interval between samples of nine days; and</li> <li>(iii) a minimum number of six days of the week used (including at least two Saturdays and two Sundays sampled each compliance year):</li> </ul> <p>(c) for a distribution zone population of 50,001-100,000,—</p> <ul style="list-style-type: none"> <li>(i) eight samples per month; and</li> <li>(ii) with a maximum interval between samples of five days; and</li> <li>(iii) with a minimum number of seven days of the week used (at least three Saturdays and three Sundays sampled each compliance year):</li> </ul> <p>(d) for a distribution zone population of more than 100,000,—</p> <ul style="list-style-type: none"> <li>(i) 12 samples per month; and</li> <li>(ii) with a maximum interval between samples of three days; and</li> <li>(iii) a minimum number of seven days of the week used (including at least four Saturdays and four Sundays sampled each compliance year).</li> </ul>	
<b>D3.MM.3</b>	<p>Drinking water in each distribution zone must be monitored according to the schedule prepared for rule <a href="#">D3.MM.2</a> for the following microbiological determinands:</p> <ul style="list-style-type: none"> <li>(a) <i>E. coli</i>:</li> <li>(b) total coliforms:</li> </ul>	<p>Rule type: Monitoring  Compliance period: 1 month  Reporting period: 1 month</p>
<b>D3.MM.4</b>	<p>Routine sampling sites for microbiological monitoring must be located to adequately represent water in a distribution system, including—</p> <ul style="list-style-type: none"> <li>(a) drinking water leaving storage facilities; and</li> <li>(b) entry points for drinking water from other drinking water suppliers.</li> </ul>	<p>Rule type: Assurance  Compliance period: 1 year  Reporting period: 1 year</p>
<b>D3.MM.5</b>	<p>Samples for microbiological monitoring in a distribution system must be collected according to sampling protocols prepared by the drinking water supplier, the laboratory or an on-site analysis system undertaking the sample analysis.</p>	<p>Rule type: Assurance  Compliance period: 1 year  Reporting period: 1 year</p>

## WC Water Carrier Service Rules module

Rule Number	Requirement	Parameters
<b>WC.1</b>	<p>All drinking water to be transported must be sourced from a registered drinking water supply where the water is—</p> <ul style="list-style-type: none"> <li>(a) safe to drink; and</li> <li>(b) complies with the drinking water standards; and</li> <li>(c) complies with the applicable Rules modules for the type of supply (at least level 1).</li> </ul>	<p>Rule type: Assurance            Compliance period: 1 year            Reporting period: 1 year</p>
<b>WC.2</b>	<p>A water carrier must only take water from a point in a distribution system prescribed by the drinking water supplier.</p>	<p>Rule type: Assurance            Compliance period: 1 year            Reporting period: 1 year</p>
<b>WC.3</b>	<p>If drinking water is sourced from a supply that provides water specifically for water carrier services, that supply must be registered and comply with the applicable Rules modules for water carrier supplies.</p>	<p>Rule type: Assurance            Compliance period: 1 year            Reporting period: 1 year</p>
<b>WC.4</b>	<p>The operator of any vehicle used to transport drinking water must ensure all tanks, and equipment used for loading or unloading water, are only used for drinking water.</p>	<p>Rule type: Assurance            Compliance period: 1 year            Reporting period: 1 year</p>
<b>WC.5</b>	<ul style="list-style-type: none"> <li>(a) The operator of any vehicle used to transport drinking water must ensure all tanks and equipment used for loading and unloading water—               <ul style="list-style-type: none"> <li>(i) are made from material that light cannot pass through; and</li> <li>(ii) are kept clean and clear of any possible contaminants at all times; and</li> <li>(iii) have all openings and connections sealed to protect them from possible contamination.</li> </ul> </li> <li>(b) Drinking water must be protected from contamination at all times during loading, transit and delivery.</li> </ul>	<p>Rule type: Assurance            Compliance period: 1 year            Reporting period: 1 year</p>

<b>WC.6</b>	<p>If tanks and the equipment and fittings used for loading and unloading drinking water are not used for transporting drinking water for a period of 30 days or more, before the next use to transport drinking water—</p> <p>(a) the tank must be disinfected by filling with drinking water containing at least 5 mg/L FAC for not less than 30 minutes before discharging safely to waste; and</p> <p>(b) equipment and fittings should be washed in water containing 5mg/L FAC.</p>	<p>Rule type: Assurance Compliance period: 1 year Reporting period: 1 year</p>
<b>WC.7</b>	<p>A water carrier must ensure there is backflow prevention or an adequate air gap in place when discharging drinking water from their tank.</p>	<p>Rule type: Assurance Compliance period: 1 year Reporting period: 1 year</p>
<b>WC.8</b>	<p>(a) When drinking water is delivered, a written statement must be provided to the customer/consumer stating the following information:</p> <p>(i) fill date and time;</p> <p>(ii) registered drinking water supply from which the tanker was loaded;</p> <p>(iii) delivery date, time, location and volume of water delivered;</p> <p>(iv) name and registration number of water carrier;</p> <p>(v) name and signature of delivery person.</p> <p>(b) The water carrier must keep records of the information in (a) for three years.</p>	<p>Rule type: Assurance Compliance period: 1 year Reporting period: 1 year</p>

## Schedule 2

### Revocation and transitional provisions

#### 1 Revocation

The Drinking Water Quality Assurance Rules 2022 are revoked from 1 July 2027.

#### 2 Transitional reporting requirements

(1) Drinking water suppliers following the Drinking Water Quality Assurance Rules 2022 prior to 1 July 2027 must report against the following rules in those Rules:

- (a) all applicable rules with a monthly reporting period for 1 June 2027 to 30 June 2027 by 14 July 2027;
- (b) all applicable rules with a quarterly reporting period for 1 April 2027 to 30 June 2027 by 28 July 2027;
- (c) rules T1.1, T1.2, D1.1, T3.1, T3.3, T3.4, T3.5, T3.6, T3.7, T3.9, T3.10, T3.11, T3.12, T3.14, T3.15, T3.16, T3.18, T3.25, T3.29, T3.33, T3.37, T3.41, T3.45, T3.49, T3.53, T3.59, T3.62, T3.67, T3.72, T3.74, T3.79, T3.82, T3.83, T3.84, T3.87, T3.88, T3.89, T3.90, T3.91, T3.93, T3.96, T3.97, D3.20, D3.22 and D3.24 for 1 January 2027 to 30 June 2027 by 22 September 2027.

Made at Wellington on 18 June 2026

Allan Prangnell  
Chief Executive  
Water Services Authority—Taumata Arowai

### Explanatory note

*This note is not part of the drinking water acceptable solution but is intended to indicate its general effect.*

These compliance rules, which come into force on 1 July 2027, prescribe modules of rules based on scale, complexity and risk for drinking water suppliers to follow as part of meeting their duties under the Act.

Drinking water suppliers are required to comply with a set of Rules modules according to the applicable category or subcategory of supply set out in the preliminary rules. The categories of drinking water supply that these Rules apply to are very small communities with under 25 people, small networked supplies with 25-100 people, medium networked supplies with 100-500 people, large networked supplies with over 500 people, self-supplied buildings with corresponding population subcategories, downstream supplies and water carriers.

The Rules modules are set out in Schedule 1 and cover very small communities rules, general rules including reporting rules, varying population rules for small and medium supplies, source water rules, treatment rules, distribution rules for networks and water carrier service rules.

The previous compliance rules made under the Act, the *Drinking Water Quality Assurance Rules 2022*, are revoked and replaced by these Rules in Schedule 2 and transitional reporting requirements from those Rules apply.

This is secondary legislation issued under the authority of the <a href="#">Legislation Act 2019</a> .	
Title	Water Services (Drinking Water Quality Assurance) Rules 2026
Principal or amendment	Principal
Consolidated version	No
Empowering Act and provisions	<a href="#">Water Services Act 2021</a> <a href="#">Section 49</a>
Maker name	Water Services Authority—Taumata Arowai
Administering agency	Water Services Authority—Taumata Arowai
Date made	18 June 2026
Publication date	19 June 2026
Notification date	19 June 2026
Commencement date	1 July 2027