

Proposed interpretation terms

To make the Rules easier to understand and follow, we've proposed defining terms and phrases at the beginning of the Rules, instead of at the end of the Rules. We are also proposing to remove specific definitions in the current Rules that we have assessed as not needing to be defined in the Rules, e.g. are already defined in the Water Services Act 2021 (the Act). These changes are in line with government best practice.

Existing term	Existing definition	Proposed new term	Proposed change	Explanation
N/A	N/A	Act	Means the Water Services Act 2021.	
abstraction point	See section 5 of the Water Services Act 2021.		Removed.	This term is already defined by the Act.
annulus	The void between a bore hole and the bore casing.		Formatting change only.	
apron (bore)	An impervious ground covering, typically concrete, which prevents ingress of surface water into the bore.		Formatting change only.	
backflow	See section 5 of the Water Services Act 2021.		Removed.	This term is already defined by the Act.
backflow prevention device	See section 5 of the Water Services Act 2021.		Removed.	This term is already defined by the Act.
backwash	The process of cleaning a filter by reversing a flow of fluid which may contain air through it.		Removed.	Term used in ordinary sense and its meaning is clear.

barrier	A process or infrastructure which prevents or reduces the likelihood of contamination of a drinking water supply.		Formatting change only.	
Benthic cyanobacterial mat	A collective mass of cyanobacteria that forms on the bottom surface of a water body.		Formatting change only.	
bore	A piped or encased hole constructed to access groundwater.		Formatting change only.	
bore head	A part of a bore infrastructure located above ground or within the accessible part of an underground access or inspection chamber.		Removed.	
building	As defined by sections 8 and 9 of the Building Act 2004.		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.	Changed to align with the definition of a building in the updated Acceptable Solutions.
C.t value	The product of the concentration (C) of a disinfectant and the contact time (t) required to control micro-organisms.		Formatting change only.	
calibration	Comparing the accuracy of a measuring device to a known standard (which may be a reference device) and adjusting it appropriately.		Removed.	Term used in ordinary sense and its meaning is clear.
calmed bottom inlet	A tank inlet pipe on the floor of a tank which is designed to prevent disturbance of sediment as water enters the tank.		Removed.	Not used in the Rules.

cartridge	The removable component of a cartridge filter which is used to entrap particulate material.		Removed.	Term used in ordinary sense and its meaning is clear.
cartridge filtration	A treatment which uses a disposable cartridge to remove particulate material from water.		Removed.	Term used in ordinary sense and its meaning is clear.
certification	Written confirmation, usually by a manufacturer, that certain requirements or standards have been met.		Removed.	Term used in ordinary sense and its meaning is clear.
coagulation	A chemical process to neutralise matter in water and which leads to floc formation.		Removed.	Term used in ordinary sense and its meaning is clear.
N/A	N/A	compliance period	Means the time over which compliance is assessed, usually 1 day, 1 month or 1 year.	Term used in the Rules that may be unclear without a definition
consumer	See section 5 of the Water Services Act 2021.		Removed.	This term is already defined by the Act.
contact time	The hydraulic residence time of a disinfection process.		Formatting change only.	
T₁₀ (contact time)	The effective contact time, which is the time it takes 10% of the volume of a unit to pass through a tank.		Formatting change only.	
cross connection	Any actual or potential connection between a drinking water supply and stormwater, wastewater, or other infrastructure.		Formatting change only.	
cyanobacteria	A major group of micro-organisms capable of photosynthesis, sometimes referred to as blue-green algae.		Removed.	Term used in ordinary sense and its meaning is clear.

cyanotoxin	A toxin produced by cyanobacteria.		Removed.	Term used in ordinary sense and its meaning is clear.
N/A	N/A	Designated UV validation standard	Means one of the following: • NSF/ANSI 55 Class A (for populations of up to 5000) • USEPA Ultraviolet Disinfection Guidance Manual • DVGW Technical Standard W294-1:2023-12 • ÖNORM M 5873-1: 2020 01 01 • DIN 19294-1:2020-08.	These standards are currently listed within the relevant rules. We are proposing to create this definition so that the standards are listed in the interpretation section instead.
determinand	See the Drinking Water Standards for New Zealand 2022.		Minor wording changes.	
differential pressure	The difference in pressure between two given points, e.g., on the inlet and outlet of a filter.		Formatting changes only.	
direct filtration	A treatment process which consists of coagulation, flocculation, and filtration, without a sedimentation process before filtration.		Formatting changes.	
direct integrity test	A physical test applied to a membrane unit to identify and isolate one or more leaks that could result in contamination of the filtrate.		Formatting change only.	
disinfection	The process used to kill or inactivate micro-organisms.		Removed.	Term used in ordinary sense and its meaning is clear.
disinfection by-product or DBP	A substance formed in drinking water as a result of a disinfection process.		Formatting change only.	

dissolved air flotation	A clarification process in which the flocs formed during coagulation and flocculation are floated to the surface by air bubbles.		Removed.	Not used in the Rules.
distribution system	All components (e.g. 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.		Formatting change only.	
distribution zone	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.		Formatting change only.	
domestic self-supply / domestic self-supplier	See section 10 of the Water Services Act 2021.		Removed.	This term is already defined by the Act. Not used in the Rules.
drinking water	See section 6 of the Water Services Act 2021.		Removed.	This term is already defined by the Act.
Drinking Water Quality Assurance Rules (2022) or Rules	See section 49 of the Water Services Act 2021.		Removed.	This term is already defined by the Act.
Drinking Water Standards or Standards	See the Water Services (Drinking Water Standards for New Zealand) Regulations 2022. Also see regulations made under section 47 of the Water Services Act 2021.		Removed.	This term is already defined by the Act. Not used in the Rules.

drinking water supplier	See section 8 of the Water Services Act 2021.		Removed.	This term is already defined by the Act.
drinking water supply	As defined by section 9 of the Water Services Act 2021.		Removed.	This term is already defined by the Act.
duty (UVI) sensor	The duty (on-line) UV sensor installed in a UV reactor that monitors UV intensity during UV equipment operations.		Formatting change only.	
<i>Escherichia coli</i> or <i>E. coli</i>	A bacteria species used as an indicator of faecal contamination of water. The presence of <i>E. coli</i> almost certainly indicates pathogens harmful to human health are present.		Removed.	Term used in ordinary sense and its meaning is clear.
event based monitoring	Monitoring of a drinking water supply to understand the effects of a specific event on its operation and the safety of drinking water.		Removed.	This term is no longer used in the Rules.
filtrate	Water, other than wash water, leaving a filter.		Formatting change only.	
filtration	A treatment process that physically removes particles from water by passing it through a medium such as sand or other suitable material.		Removed.	Term used in ordinary sense and its meaning is clear.
filtration housing	The casing containing a cartridge filter or filter material.		Removed.	Term used in ordinary sense and its meaning is clear.
floating off take	A device designed to extract water from the top of water storage infrastructure using a flotation device.		Removed.	Not used in the Rules.

flocculation	A process that promotes the formation and growth of floc, which are loosely clumped masses of fine particles.		Removed.	Term used in ordinary sense and its meaning is clear.
free available chlorine or FAC	The chlorine present in chlorinated water in the form of hypochlorous acid and hypochlorite ion.	FAC	Means free available chlorine, which is the chlorine present in chlorinated water in the form of hypochlorous acid and hypochlorite ion.	Formatting change.
free available chlorine equivalent or FACE	The 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.	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.	Formatting change.
groundwater	Water contained beneath the land surface.		Removed.	Term used in ordinary sense and its meaning is clear.
inactivate	A mechanism which inhibits the reproduction of a micro-organism.		Formatting change only.	
instantaneous total return rate	The amount of recycled water flow being returned to, and entering, the treatment system at a given point in time.		Removed.	This term is no longer used in the Rules.
log credit	A method for determining a treatment level based on a log-scale control of the target micro-organism.		Formatting change only.	
maximum acceptable value or MAV	See the Drinking Water Standards 2022.	MAV	Means maximum acceptable value, which has the meaning set out in the Water Services (Drinking Water Standards for New Zealand) Regulations 2022.	Formatting change.

media filter	A filtration process which uses a media, e.g., sand, for the removal of particulate matter.		Removed.	Term used in ordinary sense and its meaning is clear.
membrane filtration	A pressure or vacuum driven separation process in which particulate matter is rejected by an engineered barrier (membrane).		Removed.	Term used in ordinary sense and its meaning is clear.
microfiltration	A filtration process, usually membrane filtration, with pore sizes in the range of 0.1-10 microns (100 - 10,000 nm).		Removed.	Term used in ordinary sense and its meaning is clear.
nephelometric turbidity unit (NTU)	A unit of measurement for turbidity.	NTU	Means nephelometric turbidity unit which is a unit of measurement for turbidity.	Formatting change.
(oo)cysts	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.		Formatting change only.	
operator	See section 11 of the Water Services Act 2021.		Removed.	This term is already defined in the Act.
ozone contactor	A vessel which facilitates the dissolution of ozone into water and provides sufficient contact time for disinfection.		Removed.	Not used in the Rules.
ozone residual	Ozone remaining after disinfection has been achieved.		Formatting change only.	
pH adjustment	The process of changing the pH of water using acidic or basic compounds.		Removed.	Term used in ordinary sense and its meaning is clear.

planktonic cyanobacteria	Cyanobacteria which are freely floating in a body of water.		Removed.	Term used in ordinary sense and its meaning is clear.
point of supply	See section 13 of the Water Services Act 2021.		Removed.	This term is already defined in the Act.
pore size	The nominal or absolute size of the holes or apertures in a thin layer of continuous medium, e.g. a membrane filter.		Formatting change only.	
property	Separate rating unit as defined by the Rating Valuations Act 1998 or a separate rating area under the Local Government (Rating) Act 2002.		Formatting change only.	
rapid media filter	A media filter which can be pressure or gravity fed and is regularly backwashed.		Removed.	Term used in ordinary sense and its meaning is clear.
raw water	See section 5 of the Water Services Act 2021.		Removed.	This term is already defined in the Act.
recycled water	Water, usually discharged from a treatment process which is returned to the start of the treatment process (i.e. recycled).		Formatting change only.	
reduction equivalent dose or RED	A dose value for UV systems derived from a UV-dose response curve determined during UV reactor validation.		Formatting change only.	
reference (UVI) sensor	A calibrated sensor used to check the validation of the duty sensor.		Formatting change only.	

registered water supply	See subpart 7 of Part 2 of the Water Services Act 2021.		Removed.	This term is already defined in the Act.
N/A	N/A	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.	Term used in the Rules that may be unclear without a definition.
residual disinfection	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.		Formatting change only.	
roof water	The rainwater collected from the roof of a structure.		Removed.	Term only used once in the Rules (Class C criteria). Definition not required.
safe drinking water	See section 7 of the Water Services Act 2021.		Removed.	This term is already defined in the Act.
sampling point / site	A location / tap for the collection of water samples.		Removed.	Term used in ordinary sense and its meaning is clear.
sedimentation	A treatment process in which solid particles settle to and are removed from the bottom of a clarifier or settling tank.		Removed.	Term used in ordinary sense and its meaning is clear.
slow sand filtration	A filtration process that consists of a bed of fine sand, which is not backwashed and relies on a biologically active layer on top of the sand to remove and degrade particles.		Removed.	No longer used in the Rules.

slug (disinfection)	A disinfection method consisting of placing chlorine liquid in the main to achieve a target concentration when the main is full, completely filling the main to remove all air pockets and flushing the main.		Removed.	Term only used in one rule (D3.HP.4). Definition not required.
source and source water	See section 5 of the Water Services Act 2021.		Removed.	This term is already defined in the Act.
source water risk management plan	See section 5 of the Water Services Act 2021.		Removed.	This term is already defined in the Act.
spray chlorination (disinfection)	A process of spraying chlorine solution to disinfect materials, equipment and fittings used in repairs and construction of water drinking supplies.		Removed.	This term is only used in one rule (D3.HP.4). Definition not required.
spring	A location where groundwater naturally emerges from the ground surface.		Removed.	Term used in ordinary sense and its meaning is clear.
surface loading rate	The flow of water through a settling tank or clarifier, divided by the effective surface area of the clarifier.		Removed.	Not used in the Rules.
surface water	A body of water that is open to atmosphere, whether running (streams and rivers) or quiescent (lakes, reservoirs, impoundments and ponds).		Formatting change only.	
tablet (disinfection)	Disinfection of a pipe using chlorine tablets placed inside the pipe during construction to disinfect the mains once installed.		Removed.	This term is only used in one rule (D3.HP.4). Definition not required.

target turnover rate	The ideal amount of time that it takes for the volume of the water in a tank to be completely replaced.		Removed.	Not used in the Rules.
total coliforms	Genera in the family Enterobacteriaceae that will grow on a specific selective medium when incubated at 35°C ± 0.2°C.		Removed.	Term used in ordinary sense and its meaning is clear.
turbidity	A measure of the suspended particles in a sample that cause loss of clarity by scattering light.		Removed.	Term used in ordinary sense and its meaning is clear.
ultrafiltration	A filtration process, usually membrane filtration, with pore sizes in the range of 0.01-0.1 microns (10 - 100 nm).		Removed.	Term used in ordinary sense and its meaning is clear.
N/A	N/A	UV	Means ultraviolet light.	Term used in the Rules.
UV dose	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 mJ/cm ² .		Formatting change only.	
UV intensity or UVI	The intensity of UV radiation, usually measured in mW/cm ² .	UVI	Means UV intensity, which is the intensity of UV radiation, usually measured in mW/cm ² .	Minor wording changes.
UV transmittance or UVT	A measure of the amount of ultraviolet light (typically measured at 254 nm) that passes through water.		Means UV transmittance, which is a measure of the amount of ultraviolet light (typically measured at 254 nm) that passes through water.	Minor wording changes.
validation	Confirmation that equipment or a process meets, or will meet, certain performance requirements or standards, typically referring to UV reactors or membrane filters.		Removed.	Term used in ordinary sense and its meaning is clear.

verification	Checking the accuracy of a measuring device against a known standard (which may be a reference device).		Removed.	Term used in ordinary sense and its meaning is clear.
waste stream	A flow of water from a drinking water treatment plant that is not intended for further treatment or use as drinking water.		Formatting change only.	
water carrier	See section 5 of the Water Services Act 2021.		Removed.	This term is already defined in the Act.
Water Services Act 2021 or Act	See the Water Services Act 2021.		Removed.	See Act.