

Water analysis: Cascade water supply system

Parameter	Units	ADWG* Health	ADWG* Aesthetic	Cascade (10 th – 90 th percentile range)
Physical characteristics				
True colour	TCU or HU	na	15	<2
Turbidity	NTU	na	5	0.1 – 0.2
Total dissolved solids	mg/L	na	600	92 – 116
pH	pH units	na	6.5 - 8.5	7.5 – 8.2
Conductivity	mS/m	na	na	14 – 16
Total hardness	mg CaCO ₃ /L	na	200	54 – 65
Calcium hardness	mg CaCO ₃ /L	na	na	53 – 60
Magnesium hardness	mg CaCO ₃ /L	na	na	2 - 6
Alkalinity	mg CaCO ₃ /L	na	na	37 – 44
Temperature	degrees C	na	na	9 – 21
Dissolved oxygen	% saturation	na	>85%	87 – 101
Disinfectants				
Free chlorine	mg/L	5	0.6	0.42 – 0.98
Monochloramine	mg/L	3	0.5	<0.04 – 0.08
Disinfection by-products				
Trihalomethanes	mg/L	0.25	na	0.064 – 0.125
Inorganic chemicals				
Aluminium	mg/L	na	0.2	0.013 – 0.042
Ammonia (as NH ₃)	mg/L	na	0.5	<0.001
Arsenic	mg/L	0.01	na	<0.001
Cadmium	mg/L	0.002	na	<0.001
Calcium	mg/L	na	na	20.4 – 24.3

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Chloride	mg/L	na	250	15.7 – 17.8
Chromium (VI)	mg/L	0.05	na	<0.0004
Copper	mg/L	2	1	0.006 – 0.052
Cyanide	mg/L	0.08	na	<0.005
Fluoride	mg/L	1.5	na	0.94 – 1.04
Iron	mg/L	na	0.3	0.012 – 0.035
Lead	mg/L	0.01	na	<0.001
Nickel	mg/L	0.02	na	<0.001
Magnesium	mg/L	na	na	0.49 – 1.48
Manganese	mg/L	0.5	0.1	<0.001 – 0.004
Mercury	mg/L	0.001	na	<0.0001
Nitrate (as NO ₃)	mg/L	50	na	0.04 – 0.18
Nitrite (as NO ₂)	mg/L	3	na	<0.001
Phosphorous	mg/L	na	na	0.001 – 0.003
Potassium	mg/L	na	na	0.3 – 0.8
Reactive silica (as SiO ₂)	mg/L	na	<80 mg/L	2.8 – 4.0
Selenium	mg/L	0.01	na	<0.003
Silver	mg/L	0.1	na	<0.003
Sodium	mg/L	na	180	3.6 – 4.2
Sulfate	mg/L	500	250	0.8 – 1.1
Zinc	mg/L	na	3	<0.005 – 0.009
Organic compounds				
Chlorinated, polynuclear aromatic, aromatic hydrocarbons		various	various	nd
Chlorophenols		various	various	nd
Pesticides		various	various	nd

Legend: na = no published health or aesthetic guideline value, nd = reported results are non-detectable (less than the limit of detection), *ADWG = Australian Drinking Water Guidelines 2011