

WATER ANALYSIS - CHEMICAL AND MICROBIOLOGICAL

GUIDELINES FOR DRINKING, DOMESTIC USE, IRRIGATION AND LIVESTOCK

Parameter	Method Reference	#Guideline Drinking	#Guideline Irrigation (Long term 100yrs)	#Guideline Livestock
pH	APHA 4500-H ⁺	*6.5 - 8.5	6-9.0	--
Conductivity (dS/m)	APHA 2510	<0.8	<0.8	<4.8
Total Dissolved Solids (mg/L)	By Calculation	*<600	<500	<3000
Turbidity (NTU)	APHA 2130	*<5	--	--
Hardness (mg/L) (total as CaCO ₃)	APHA 2340	*<200	--	--
Alkalinity (mg/L) (total as CaCO ₃)	APHA 2320	--	--	--
Cadmium (mg/L)	APHA 3120 ICPMS	<0.002	<0.01	<0.01
Copper (mg/L)	APHA 3120 ICPMS	<2.0	<0.2	<0.4
Iron (mg/L)	APHA 3120 ICPMS	*<0.3	<0.2	--
Lead (mg/L)	APHA 3120 ICPMS	<0.01	<2	<0.1
Manganese (mg/L)	APHA 3120 ICPMS	*<0.1	<0.2	--
Zinc (mg/L)	APHA 3120 ICPMS	*<3	<2	<20
Arsenic (mg/L)	APHA 3120 ICPMS	<0.01	<0.1	<0.5
Nickel (mg/L)	APHA 3120 ICPMS	<0.1	<0.2	<1
Aluminium (mg/L)	APHA 3120 ICPMS	*<0.2	<5	<5
Boron (mg/L)	APHA 3120 ICPOES	<4	<0.5	--
Nitrate (mg/L N)	APHA 4500 NO ₃ -F	<10	--	<400
Nitrite (mg/L N)	APHA 4500 NO ₂ -C	<1	--	<30
Ammonia (mg/L N)	APHA 4500 NH ₃ -H	*<0.5	--	--
Phosphate (mg/L P)	APHA 4500 P-G	--	<0.05	--
Sodium (mg/L)	APHA 3120 ICPOES	<180	<350-750	--
Potassium (mg/L)	APHA 3120 ICPOES	--	--	--
Calcium (mg/L)	APHA 3120 ICPOES	--	--	<1000
Magnesium (mg/L)	APHA 3120 ICPOES	--	--	<2000
Sodium Adsorption Ratio	By Calculation	--	<5.0	--
Chloride (mg/L)	APHA 4500 Cl ⁻	*<250	<30-700	--
Sulphate (mg/L)	APHA 3120 ICPOES	<500	250	<1000
Total Coliforms (cfu per 100ml)	APHA 9222-C	Site Specific	--	--
Faecal Coliforms (cfu per 100ml)	APHA 9222-E	0 (<1)	<100	<100

1 mg/L (milligram per litre) = 1 ppm (part per million); 1 dS/m = 1 mS/cm = 1000 µS/cm; cfu = colony forming units

* Recommended level not directly health related but relates to the aesthetic quality of the water.

ANZECC Guidelines for Fresh and Marine Water Quality-Vol 1 – The Guidelines, October 2000.

NHMRC, Australian Drinking Water Guidelines 6, 2012