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Aesthetic water quality

Aesthetic test description	Units	No of tests	Minimum	Maximum	Average	Aesthetic guideline	Health limit	Scheme compliant with ADWG 2011
Aluminium	mg/L	12	<LOR	0.24	0.03	0.2	ns	Yes
Chlorine (Free)	mg/L	52	0.23	3	1.34	250	ns	Yes
Iron	mg/L	12	0.0048	0.5	0.06	0.3	ns	Yes
pH	pH Unit	12	7.4	8	7.56	6.5-8.5	ns	Yes
Total Hardness	mg/L	12	82	350	205	200	ns	No*
Turbidity	NTU	12	<LOR	4.8	0.58	5	ns	Yes
Zinc	mg/L	12	0.0067	0.02	0.01	3	ns	Yes

* Total hardness
Hardness is caused by calcium and magnesium salts in the water. Hard water can be difficult to lather and may deposit scale in hot water systems. According to the ADWG hardness is an aesthetic water issue only, there is no evidence of health related impacts in relation to elevated hardness and therefore a health guideline value has not been set.

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Health-related water quality

Health related test description	Units	No of tests	Minimum	Maximum	Average	Aesthetic guideline	Health limit	Scheme compliant with ADWG 2011
Barium	mg/L	12	0.012	0.038	0.03	ns	2	Yes
Cadmium	mg/L	12	<LOR	<LOR	<LOR	ns	0.002	Yes
Chlorine (Total)	mg/L	52	0.58	3.1	1.60	ns	5	Yes
Chromium	mg/L	12	<LOR	<LOR	<LOR	ns	0.05	Yes
Copper	mg/L	12	0.0092	0.06	0.03	1	2	Yes
Dichloroacetic Acid	ug/L	12	<LOR	37	15.7	ns	100	Yes
Escherichia coli	CFU/100mL	52	n/a	n/a	n/a	ns	<1	Yes
Fluoride (as F)	mg/L	12	0.2	0.88	0.47	ns	1.5	Yes
Lead	mg/L	12	<LOR	0.0022	0.001	ns	0.01	Yes
Manganese	mg/L	12	<LOR	0.14	0.01	0.1	0.5	Yes
Monochloroacetic Acid	ug/L	12	<LOR	<LOR	<LOR	ns	150	Yes
Nickel	mg/L	12	<LOR	<LOR	<LOR	ns	0.02	Yes
Nitrate (as N)	mg/L	12	<LOR	0.32	0.16	ns	50	Yes
Nitrite (as N)	mg/L	12	<LOR	<LOR	<LOR	ns	3	Yes
Sulfate (as SO4)	mg/L	12	12	52	27.50	250	500	Yes
Trichloroacetic Acid	ug/L	12	<LOR	35	11.9	ns	100	Yes
Trihalomethanes (Total)	ug/L	12	11	110	47.7	ns	250	Yes

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Other water quality

Test description	Units	No of tests	Minimum	Maximum	Average	Aesthetic guideline	Health limit	Scheme compliant with ADWG 2011
2-Methylisoborneol	ng/L	12	<LOR	7.2	2.6	ns	ns	n/a
Alkalinity	mg/L	12	79	230	150	ns	ns	n/a
Ammonia (Total, as N)	mg/L	12	<LOR	0.005	<LOR	ns	ns	n/a
Bromide	mg/L	12	<LOR	0.32	0.15	ns	ns	n/a
Bromochloroacetic Acid	ug/L	12	<LOR	16	<LOR	ns	ns	n/a
Bromodichloromethane	ug/L	12	<LOR	31	12.1	ns	ns	n/a
Bromoform	ug/L	12	<LOR	17	6.7	ns	ns	n/a
Calcium	mg/L	12	19	76	46.0	ns	ns	n/a
Chlorate	mg/L	12	<LOR	0.47	0.178	ns	ns	n/a
Chloride	mg/L	12	40	170	102	ns	ns	n/a
Chlorine (Combined)	mg/L	52	<LOR	2.1	0.28	ns	ns	n/a
Chlorodibromomethane	ug/L	12	4.6	18	11.70	ns	ns	n/a
Chloroform	ug/L	12	<LOR	61	18.6	ns	ns	n/a
Colour (True)	PCU	12	<LOR	<LOR	<LOR	ns	ns	n/a

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Conductivity	uS/cm	12	380	910	662	ns	ns	n/a
Dibromoacetic Acid	ug/L	12	<LOR	<LOR	<LOR	ns	ns	n/a
Geosmin	ng/L	12	<LOR	7	<LOR	ns	ns	n/a
Haloacetic Acids (Total)	ug/L	12	<LOR	77	<LOR	ns	ns	n/a
Magnesium	mg/L	12	7.7	38	22.1	ns	ns	n/a
Monobromoacetic Acid	ug/L	12	<LOR	<LOR	<LOR	ns	ns	n/a
Nitrite and Nitrate(as N)	mg/L	12	0.066	0.32	0.16	ns	ns	n/a
Potasium	mg/L	12	1.9	2.5	2.18	ns	ns	n/a
Silica	mg/L	12	15	24	19.8	ns	ns	n/a
Sodium	mg/L	12	44	73	57.3	ns	ns	n/a
Temperature	deg C	12	17	29	24	ns	ns	n/a
Total Dissolved Salts	mg/L	34	240	580	423	ns	ns	n/a
Total Organic Carbon	mg/L	12	1.1	2.8	1.80	ns	ns	n/a

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Definitions

n/a	not applicable
ns	not set

ADWG = Australian Drinking Water Guidelines 2011.
The ADWG 2011 have been developed by the National Health and Medical Research Council (NHMRC) in collaboration with the Natural Resource Management Ministerial Council (NRMMC). The ADWG incorporates the Framework for the Management of Drinking Water Quality and provides the Australian community and the water supply industry with guidance on what constitutes good quality drinking water.

To access the ADWG go to:
http://www.nhmrc.gov.au/_files_nhmrc/publications/attachments/eh52_aust_drinking_water_guidelines_update_120710_0.pdf

Bacteriological quality

Bacteriological quality is assessed by monitoring the water for the organism Escherichia coli as an indicator of contamination. A drinking water scheme is considered bacteriologically safe to drink if no E. coli are found in 98 % of samples analysed.

Chemical parameters

QUU reports yearly on a number of water quality parameters.
The performance for chemical parameters with a health value is assessed as recommended by the ADWG. Performance is deemed as satisfactory if the 95th percentile value is less than the ADWG health guideline value.

Performance for parameters with an aesthetic guideline value is assessed as recommended by the ADWG. Water is considered good quality if the mean value of an aesthetical parameter is measured at less than the recommended maximum criteria described in ADWG.