

Drinking Water Monitoring Report

Singleton Council LWU - Quarter 1 2025/26

Executive Summary

In the first quarter of 2025/26, Singleton Council performed routine drinking water sampling and testing to monitor the quality of drinking water. The results were submitted to the NSW Drinking Water Database.

Compliance is determined against the Australian Drinking Water Guidelines (2011) guideline values for *E. coli*, physical and chemical characteristics of drinking water.

The Singleton supply system achieved compliance of 100% for physical, 100% for chemical, and 100% for microbiological samples.

The Jerrys Plains supply system achieved compliance of 100% for physical, 100% for chemical, and 100% for microbiological samples.

Water Quality

Singleton

Summary

Table 1. Singleton Water Quality Compliance

Sample Type	Sample Count	Number of Characteristics	Number of Non-Compliant Samples	Compliance (%)
Physical	12	4	0	100
Chemical	86	30	0	100
Microbiological	36		0	100

Routine Drinking Water Monitoring Characteristics

Table 2. Singleton Chronic health-related Chemical Water Quality Data

Characteristic	Guideline Value	Units	Mean	Maximum	Sample count	Compliance (%)
Antimony	0.003	mg/L	0.0001	0.00005	3	100
Arsenic	0.01	mg/L	0.001	0.001	3	100
Barium	2	mg/L	0.0074	0.0081	3	100
Boron	4	mg/L	0.0192	0.0207	3	100
Cadmium	0.002	mg/L	0.0001	0.00005	3	100
Chromium	0.05	mg/L	0.0005	0.0005	3	100
Fluoride	1.5	mg/L	0.77	0.79	3	100
Iodine	0.5	mg/L	0.0267	0.03	3	100
Lead	0.01	mg/L	0.0003	0.0004	3	100
Manganese	0.5	mg/L	0.0026	0.0033	3	100
Mercury	0.001	mg/L	0.0003	0.0004	3	100

Characteristic	Guideline Value	Units	Mean	Maximum	Sample count	Compliance (%)
Molybdenum	0.05	mg/L	0.0002	0.00025	3	100
Nickel	0.02	mg/L	0.0003	0.0005	3	100
pH	6.5 - 8.5		7.0667	7.1	3	100
Selenium	0.01	mg/L	0.0027	0.0035	3	100
Silver	0.1	mg/L	0.0002	0.00025	3	100
Uranium	0.02	mg/L	0.0001	0.00025	3	100

Chronic health-related chemical characteristics are inorganic chemicals that might be present in water and can pose a risk to health with prolonged exposure. The Guideline values for these materials are usually set to be protective over a lifetime of exposure. Single results above Guideline values are unlikely to pose a risk to health; compliance is based on analysing long term trends.

Table 3a. Singleton Acute health-related Chemical Water Quality Data

Characteristic	Guideline Value	Units	Mean	Maximum	Sample count	Compliance (%)
Copper	2	mg/L	0.0103	0.017	3	100
Nitrate	50	mg/L	1	1	3	100
Nitrite	3	mg/L	0.05	0.05	3	100

Acute health-related chemical characteristics are inorganic chemicals that can pose a health risk based on a small number of exposures. High concentrations of copper can cause vomiting. High concentrations of nitrite or nitrate can be risky for bottle-fed babies. The Guideline values for these characteristics have been set to protect people from short-term exposure.

Table 4b. Singleton Physical and Selected Aesthetic Chemical Water Quality Data

Characteristic	Guideline Value	Units	Mean	Maximum	Sample count	Compliance (%)
Iron	0.3	mg/L	0.01	0.02	3	100
Sodium	180	mg/L	18.67	19	3	100
Total Dissolved Solids (TDS)	10000	mg/L	103.00	109	3	100
Total Hardness as CaCO ₃	200	mg/L	56.67	59.8	3	100
True Colour	15	Hazen Units (HU)	0.83	1	3	100
Turbidity	5	NTU	0.08	0.1	3	100

Physical and aesthetic chemical characteristics change the way that water appears; its taste, smell, look and feel. These characteristics do not have health guideline values but do affect how people feel about their drinking water.

Table 5. Singleton Microbiological Water Quality Data

Characteristic	Guideline Value	Units	Mean	Maximum	Sample count	Compliance (%)
E. coli	0	mpn/100 mL	0.00	0	36	100
Free Chlorine	0.2 - 5	mg/L	1.08	1.78	36	100
Total Chlorine	5	mg/L	1.27	1.9	36	100

Escherichia coli, a bacteria found in the gut of many backboned animals, is an indicator that there has been recent contamination with faeces in a drinking water supply. Chlorine is used widely to kill disease-causing organisms in drinking water. A reasonable residual concentration in the supply provides ongoing protection all the way to customer taps, and gives some indication that filtration is working well and the distribution system has not been compromised.

Jerrys Plains

Summary

Table 6. Jerrys Plains Water Quality Compliance

Sample Type	Sample Count	Number of Characteristics	Number of Non-Compliant Samples	Compliance (%)
Physical	4	4	0	100
Chemical	28	28	0	100
Microbiological	6		0	100

Routine Drinking Water Monitoring Characteristics

Table 7. Jerrys Plains Chronic health-related Chemical Water Quality Data

Characteristic	Guideline Value	Units	Result	Sample count	Compliance (%)
Antimony	0.003	mg/L	0.0001	1	100
Arsenic	0.01	mg/L	0.001	1	100
Barium	2	mg/L	0.0241	1	100
Boron	4	mg/L	0.0466	1	100
Cadmium	0.002	mg/L	0.0001	1	100
Chromium	0.05	mg/L	0.001	1	100
Fluoride	1.5	mg/L	0.18	1	100
Iodine	0.5	mg/L	0.03	1	100
Lead	0.01	mg/L	0.0002	1	100
Manganese	0.5	mg/L	0.0005	1	100
Mercury	0.001	mg/L	0.0004	1	100
Molybdenum	0.05	mg/L	0.0004	1	100
Nickel	0.02	mg/L	0.0013	1	100
pH	6.5 - 8.5		7.1	1	100
Selenium	0.01	mg/L	0.0035	1	100
Silver	0.1	mg/L	0.0001	1	100
Uranium	0.02	mg/L	0.0001	1	100

Chronic health-related chemical characteristics are inorganic chemicals that might be present in water and can pose a risk to health with prolonged exposure. The Guideline values for these materials are usually set to protective over a lifetime of exposure. Single results above Guideline values are unlikely to pose a risk to health; compliance is based on analysing long term trends.

Table 7a. Jerrys Plains Acute health-related Chemical Water Quality Data

Characteristic	Guideline Value	Units	Result	Sample count	Compliance (%)
Copper	2	mg/L	0.014	1	100
Nitrate	50	mg/L	0.5	1	100
Nitrite	3	mg/L	0.05	1	100

Acute health-related chemical characteristics are inorganic chemicals that can pose a health risk based on a small number of exposures. High concentrations of copper can cause vomiting. High concentrations of nitrite or nitrate can be risky for bottle-fed babies. The Guideline values for these characteristics have been set to protect people from short-term exposure.

Table 7b. Jerrys Plains Physical and Selected Aesthetic Chemical Water Quality Data

Characteristic	Guideline Value	Units	Result	Sample count	Compliance (%)
Iron	0.3	mg/L	0.01	1	100
Sodium	180	mg/L	80	1	100
Total dissolved solids	10000	mg/L	385	1	100
Total hardness	200	mg/L	170.7	1	100
True Colour	15	Hazen Units (HU)	0.5	1	100
Turbidity	5	NTU	0.1	1	100

Physical and aesthetic chemical characteristics change the way that water appears; its taste, smell, look and feel. These characteristics do not have health guideline values but do affect how people feel about their drinking water.

Table 8. Jerrys Plains Microbiological Water Quality Data

Characteristic	Guideline Value	Units	Mean	Maximum	Sample count	Compliance (%)
E. coli	0	mpn/100 mL	0	0	6	100
Free Chlorine	0.2 - 5	mg/L	1.5583	1.98	6	100
Total Chlorine	5	mg/L	1.7167	2.16	6	100

Escherichia coli, a bacteria found in the gut of many backboned animals, is an indicator that there has been recent contamination with faeces in a drinking water supply. Chlorine is used widely to kill disease-causing organisms in drinking water. A reasonable residual concentration in the supply provides ongoing protection all the way to customer taps, and gives some indication that filtration is working well and the distribution system has not been compromised.

Other Monitoring

Jerrys Plains Per- and Poly-fluorinated Alkyl Substances (PFAS) Testing

Table 9. Jerrys Plains PFAS Water Quality Data

Characteristic	Guideline Value	Units	Result	Sample Count	Compliance (%)
Perfluorooctanesulfonic acid (PFOS)	70	ng/L	0.4	1	100
Perfluorooctanoic acid (PFOA)	560	ng/L	0.3	1	100
Sum of perfluorooctane sulfonate (PFOS) and perfluorohexane sulfonate (PFHxS)	70	ng/L	1.1	1	100

PFAS are a class of chemicals that have been developed for fire-fighting, stain and water resistance and other uses. They can pose a risk to health with prolonged exposure. The Guideline values for these materials are set to be protective over a lifetime of exposure.