Dunwich WTP - Redland

September 2026 - Site Performance

Parameter Group	Parameter	Unit Of Measure	ADWG Criteria [33]	Number Of Samples [34]	Minimum [35]	Average [36]	Maximum [37]	Number That Passed [38]	Number That Failed [39]
Health Parameters (note That Copper And Manganese Have Both Health And Aesthetic Guideline Values)									
Chemicals	✔ Fluoride [1]	mg/L	<= 1.5	4	0.76	0.79	0.82	4	0
Chemicals	✔ Free Chlorine - Field [2]	mg/L	<= 5	5	1.4	1.5	1.6	5	0
Chemicals	✔ Total Chlorine - Field [3]	mg/L	<= 5	5	1.4	1.6	1.7	5	0
Metals	✔ Arsenic [4]	mg/L	<= 0.01	1	<0.0005	<0.0005	<0.0005	1	0
Metals	✔ Boron [5]	mg/L	<= 4	1	<0.03	<0.03	<0.03	1	0
Metals	✔ Cadmium [6]	mg/L	<= 0.002	1	<0.0001	<0.0001	<0.0001	1	0
Metals	✔ Chromium [7]	mg/L	<= 0.05	1	<0.001	<0.001	<0.001	1	0
Metals	✔ Copper [8]	mg/L	<= 2	1	0.004	0.004	0.004	1	0
Metals	✔ Lead [9]	mg/L	<= 0.005	1	<0.001	<0.001	<0.001	1	0
Metals	✔ Manganese [10]	mg/L	<= 0.1	1	<0.001	<0.001	<0.001	1	0
Metals	✔ Mercury [11]	mg/L	<= 0.001	1	<0.0001	<0.0001	<0.0001	1	0
Metals	✔ Nickel [12]	mg/L	<= 0.02	1	<0.001	<0.001	<0.001	1	0
Metals	✔ Selenium [13]	mg/L	<= 0.004	1	<0.002	<0.002	<0.002	1	0
Microbiological	✔ E.coli MF [14]	CFU/100mL	< 1	5	<1.0	<1.0	<1.0	5	0

Parameter Group	Parameter	Unit Of Measure	ADWG Criteria [33]	Number Of Samples [34]	Minimum [35]	Average [36]	Maximum [37]	Number That Passed [38]	Number That Failed [39]
Trihalomethanes	Trihalomethanes [15]	µg/L	<= 250	1	3.0	3.0	3.0	1	0
Aesthetic Parameters									
Major Cations & Anions	Chloride [16]	mg/L	<= 250	1	25.0	25.0	25.0	1	0
Major Cations & Anions	Hardness [17]	mg/L	<= 200	1	36.0	36.0	36.0	1	0
Major Cations & Anions	Sodium [18]	mg/L	<= 180	1	11.0	11.0	11.0	1	0
Major Cations & Anions	Sulphate [19]	mg/L	<= 250	1	2.0	2.0	2.0	1	0
Metals	Aluminium [20]	mg/L	<= 0.2	1	0.010	0.010	0.010	1	0
Metals	Copper [8]	mg/L	<= 1	1	0.004	0.004	0.004	1	0
Metals	Iron [21]	mg/L	<= 0.3	1	<0.01	<0.01	<0.01	1	0
Metals	Manganese [10]	mg/L	<= 0.05	1	<0.001	<0.001	<0.001	1	0
Metals	Zinc [22]	mg/L	<= 3	1	<0.005	<0.005	<0.005	1	0
Physical Properties	pH - Field [23]	pH Unit	6.5 - 8.5	5	7.3	7.5	7.7	5	0
Physical Properties	Total Dissolved Solids [24]	mg/L	<= 600	1	80.0	80.0	80.0	1	0
Physical Properties	True Colour [25]	HU	<= 15	1	<1.0	<1.0	<1.0	1	0
Physical Properties	Turbidity [26]	NTU	<= 5	1	0.1	0.1	0.1	1	0
Other Parameters									

Parameter Group	Parameter	Unit Of Measure	ADWG Criteria [33]	Number Of Samples [34]	Minimum [35]	Average [36]	Maximum [37]	Number That Passed [38]	Number That Failed [39]
Major Cations & Anions	Calcium [27]	mg/L	N/A	1	12.0	12.0	12.0	N/A	N/A
Major Cations & Anions	Magnesium [28]	mg/L	N/A	1	1.00	1.00	1.00	N/A	N/A
Major Cations & Anions	Potassium [29]	mg/L	N/A	1	<1.0	<1.0	<1.0	N/A	N/A
Physical Properties	Alkalinity [30]	mg/L	N/A	1	27.0	27.0	27.0	N/A	N/A
Physical Properties	Conductivity - Field [31]	µS/cm	N/A	5	148.0	152.0	159.0	N/A	N/A
Physical Properties	Temperature - Field [32]	°C	N/A	5	20.3	21.0	22.0	N/A	N/A

Descriptions

1. Low levels of fluoride occur naturally in many water sources. Fluoride is also added to drinking water in many parts of the world, including South East Queensland, to help reduce tooth decay. Not all water sources in South East Queensland are presently fluoridated. The Bulk Drinking Water Quality Report (previously called Customer Confidence Report) only covers compliance with the health standards set in the Australian Drinking Water Guidelines and the Public Health Regulation 2005. The health guideline value for fluoride is 1.5 mg/L.
   More info
2. Chlorine is the most common chemical used for the disinfection of drinking water. It is highly effective at killing bacteria and viruses, at oxidising soluble iron, manganese and sulfides, and removing tastes and odours and some algae toxins. Based on health considerations, the ADWG guideline for Total Chlorine in drinking water is 5 mg/L.
   More info
3. Chlorine is the most common chemical used for the disinfection of drinking water. It is highly effective at killing bacteria and viruses, at oxidising soluble iron, manganese and sulfides, and removing tastes and odours and some algae toxins. Based on health considerations, the ADWG guideline for Total Chlorine in drinking water is 5 mg/L.
   More info
4. Arsenic is naturally occurring in the environment but can also be added through human sources, such as mining, industry and agriculture. Inorganic arsenic is highly toxic to humans and has an ADWG derived health guideline of 0.01 mg/L as set in the ADWG.
   More info
5. Boron is a metal that can occur in water through the natural leaching of boron-containing minerals or contamination. Based on health considerations, boron has an ADWG health derived guideline of 4 mg/L, however, limited information indicates that concentrations in water is less than 0.1 mg/L.
   More info
6. Cadmium is a metal that is resistant to corrosion, which is why it was often used in steel plating. It is also a common component in zinc ores and a byproduct of zinc production. Based on ADWG health guidelines, cadmium levels in water should not exceed 0.002 mg/L.
   More info
7. Chromium is present in the environment in the trivalent (CR(III)) and hexavalent (CR(VI)) states. Seqwater tests for total chromium and if total chromium exceeds the ADWG health guideline of 0.05 mg/L then additional analysis for hexavalent and trivalent chromium shall be performed.
   More info
8. Copper is a mineral widely distributed in rocks and soil and is used in domestic plumbing because it is relatively resistant to corrosion. It is present in uncontaminated surface waters at very low concentrations. Copper has both an aesthetic and a health guideline value. The aesthetic guideline value is 1 mg/L. The health guideline value is 2 mg/L.
   More info
9. Lead can be present in drinking water as a result of dissolution from natural sources or from household plumbing systems containing lead. It is not normally present in the water supplied from a water treatment plant, but may dissolve into the water supply if lead piping or joins are present in plumbing. The health guideline value for lead is 0.005 mg/L.
   More info
10. Manganese is a mineral present in the environment which can enter the water supply in its soluble form. Manganese has both an aesthetic and a health guideline value. The aesthetic guideline value is 0.05 mg/L. The health guideline value is 0.1 mg/L.
    More info
11. Natural levels of mercury in water is low, with most sources coming from industrial spills and emissions. Based on ADWG health guidelines, the concentration of total mercury should not exceed 0.001 mg/L, which is based off the toxicity of methyl mercury.
    More info
12. Nickel is a metal used largely in the electroplating industry and for making alloys. Its main releases to the environment are from burning fossil fuels and industrial waste discharges. Based on ADWG health considerations, nickel concentrations in drinking water should not exceed 0.02 mg/L.
    More info
13. Selenium and selenium salts are widespread in the environment and is naturally found in soil; however, concentrations can vary considerably between areas with higher levels found in places with recent volcanic activity. Based on ADWG health considerations, Selenium levels in water should not exceed 0.004 mg/L.
    More info
14. Escherichia coli (E. coli) is a type of bacteria used as an indicator of microbiological water quality. The health guideline value for E. coli is that none should be detected in a minimum 100 mL sample.
    More info
15. Trihalomethanes are a by-product of the chlorination and chloramination disinfection processes. Disinfection is essential to destroy microorganisms that could otherwise be harmful. The health guide value for total trihalomethanes is 0.25 mg/L.
    More info
16. Chloride is widely distributed in nature as salt through the leaching of rocks into soil and water and also through human sources such as fertilizers, effluent and landfills. Chloride does not have an ADWG health guideline, however based on ADWG aesthetic considerations chloride concentrations exceeding 250 mg/L may be detectable to taste.
    More info

‘Hard’ water is caused by dissolved calcium and magnesium salts, particularly carbonates and bicarbonates. Total hardness is a calculation of total magnesium and calcium, whereas soluble hardness is a calculation of soluble magnesium and calcium. The aesthetic guideline value for total hardness, reported as calcium carbonate, is 200 mg/L.
More info

18. Sodium is an essential element for all animals and many plants. It is naturally occurring in water systems, but can be added through runoff or during the water treatment process. Based on aesthetic considerations, the ADWG has specified that concentrations of sodium above 180 mg/L may affect the taste of drinking water.
More info
19. Sulphate occurs naturally in many minerals and it is used to manufacture many products such as chemicals, paper, soaps and insecticides. Sulphate has an ADWG aesthetic guideline of 250 mg/L due to having a taste threshold between 250-500 mg/L.
More info
20. Aluminium may be naturally present in water or from the water treatment process. Aluminium sulphate is also used extensively as a coagulant in order to treat water. The aesthetic ADWG limit for Aluminium (of <= 0.2 mg/L) refers to acid soluble Aluminium, which is a portion of total Aluminium. Total Aluminium (as reported here) is a conservative measure and will always be higher, or equal to, acid soluble aluminium.
More info
21. Iron can occur naturally in water sources and may also enter the water supply from the corrosion of iron water pipes. The aesthetic guideline value for iron is 0.3 mg/L.
More info
22. Zinc is a widely distributed metal and occurs in small amounts in most rocks. It is used as a coating for iron and steel products and to manufacture brass. Zinc has an ADWG aesthetic guideline of 3 mg/L as levels above this may cause taste issues.
More info
23. pH is a measure of how acidic or alkaline the water is in the system. pH is affected by the source water and also the water treatment process. The aesthetic guideline value for drinking water is between pH 6.5 to pH 8.5. Water that is naturally pH low may need to be conditioned in order to ensure it complies with the guidelines. This is most commonly achieved by adding lime or passing the water through a bed of limestone chippings.
More info
24. Total dissolved solids are inorganic salts and small amounts of organic matter that are dissolved in water. The aesthetic guideline value for total dissolved solids in drinking water is 600 mg/L.
More info
25. ‘True colour’ is the colour of the water after particles have been removed by filtration. It is a measure of whether the water appears coloured or tinted due to parameters dissolved in the water. The aesthetic guideline value for colour is 15 Hazen Units (HU).
More info
26. Turbidity is caused by the presence of fine suspended matter such as silt, clay, plankton, and other organisms in the water. It is a measure of the extent to which water appears cloudy or hazy. The aesthetic guideline value for turbidity is 5 Nephelometric Turbidity Units (NTU). At this level turbidity is just noticeable to the average person.
More info
27. Calcium is an essential element for humans and it occurs naturally in water through leaching of sedimentary rocks and soil runoff. Excessive levels of calcium and magnesium can increase water hardness, leading to difficulty in soap lathering and the deposition of scale. There are no ADWG guidelines for calcium.
More info
28. Magnesium is an essential element for humans and it occurs naturally in water through leaching of sedimentary rocks and soil runoff. Excessive levels of magnesium and calcium can increase water hardness, leading to difficulty in soap lathering and the deposition of scale. There are no ADWG guidelines for magnesium.
More info
29. Potassium is an essential element for humans. It occurs naturally in water and can also be added during the water treatment process with the addition of potassium permanganate. There are no ADWG guidelines for potassium.
More info
30. Alkalinity is a total measure of the parameters (carbonate, bicarbonate and hydroxide content) in water that have acid-neutralising ability. There is no guideline value for alkalinity so there will be no failure of this sample result.
More info
31. Conductivity is the measurement of the water’s ability to conduct electricity. Water is able to conduct electricity when ions are present through the dissolving of salts and other inorganic chemicals. There are no ADWG guidelines for conductivity.
More info
32. Temperature is mainly an aesthetic criterion for drinking water, with most consumers preferring cool water. Accurate measurement of water temperature is important in the calculation of pH, conductivity and dissolved oxygen There are no ADWG guidelines for temperature as it is impractical to try controlling the temperature of water.
More info
33. Health and aesthetic parameter guidelines for drinking water, as defined in the Australian Drinking Water Guidelines.
More info

The number of samples tested within the reporting period.

35. The lowest result from all the samples tested within the reporting period.
36. The average of all the results within the reporting period.
37. The highest result from all the samples tested within the reporting period
38. The number of samples that passed ADWG criteria.
39. The number of samples that failed ADWG criteria.

Unit of measures

Mg/L
: Milligrams per litre.

CFU/100mL
: Colony Forming Unit per 100 millilitres - used as a measure of bacterial cells.

MPN/100mL
: Most Probable Number per 100 millilitres – used as a measure of bacterial cells.

µg/L
: Micrograms per litre.

pH Unit
: A unit of measure which describes the degree of acidity or alkalinity of a solution.

HU
: Hazen Units - used as a measurement of colour.

NTU
: Nephelometric Turbidity Unit – used as a measurement of turbidity.

µS/cm
: MicroSiemens per centimetre – used as a measurement of conductivity.

°C
: Degrees in Celsius.

ng/L
: Nanogram per litre.