



DWQMP Report 2023/2024

Aurukun Shire Council

25/11/2024



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1.INTRODUCTION

Aurukun Shire Council (ACS) operates the water supply and sewerage scheme in the Cape York community of Aurukun, Queensland (see Figure 1). Although the Aurukun Shire Council covers a significant land area of more than 7,500 km², the water supply services are largely only provided to the township of Aurukun, an area of less than 1 km².

Council is responsible for the sourcing, treatment and supply of drinking water to the community.

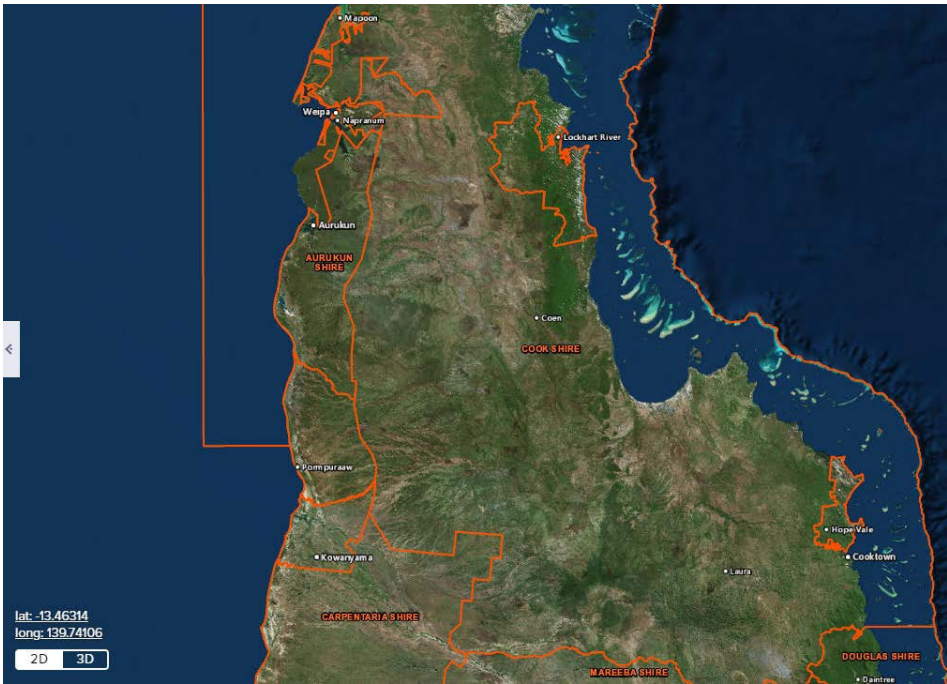


Figure 1 Aurukun Shire Council Local Government Area

Aurukun Shire Council is registered as a water service provider (SPID 5), with details included in the table below.

Table 1 Aurukun Population and Service details

Service Description - Aurukun	Details
Current Connected Population (2022)	1,124
Future Connected Population (2032)	1,275
Current Connections (approx.)	320
Current Demand (approx.)	511 ML/a; 1.4ML/day
Future Demand (2032)	592 ML/a

Population in Aurukun is currently increasing at a rate of ~2.2% per annum. Demand forecasts based on current per capita consumption (projected to future population). No additional increase in demand has been allowed for future development of new mining proposed in the Shire, which may cause additional demand on the current supply.

As required under the *Water Supply (Safety and Reliability) Act 2008* (the Act), Aurukun Shire Council developed a drinking water quality management plan (DWQMP) that met the requirements of the Act.

This report is a regulatory requirement that details how Council has implemented the DWQMP and provides details of the verification monitoring undertaken in our drinking water schemes and is also made available to our customers through our website or for inspection upon request at the ASC office.

The structure of this report follows the requirements of s142 of the Act.

2. ACTIONS TAKEN TO IMPLEMENT THE PLAN

During the FY 22/23 the Aurukun WTP was significantly upgraded with the newly built treatment plant being fully automated and running an old SCADA system and sends out alerts to the operators. It is proposed to replace/upgrade the SCADA in February 2025.

The new treatment plant consists of the same 2 process steps as before, however new chemicals are used:

1. pH Adjustment – Using Caustic Soda
2. Disinfection – Using Sodium Hypochlorite

The treatment plant building is fully air conditioned to extend the shelf life of sodium hypochlorite and protect the plant equipment from the, at times, extreme climate of the region.

During the FY 23/24 the ASC scheme was operated as outlined in the approved DWQMP Version 2.1. The DWQMP details the operational steps that are being taken to ensure that Aurukun's customers receive safe drinking water. The operations team during the FY 23/24 was either fully Cert 3 qualified or currently undertaking Cert 3 training.

3. REVIEWS

Council will be completing a review of the DWQMP in the 2024/25 reporting year, including key issues and actions from the Targeted Compliance Inspection completed on 7 November 2024.

4. AUDITS

The next regulatory audit is due by 24 December 2025.

5. CUSTOMER SERVICE STANDARDS

ASC has complied with all our customer service performance targets over the reporting period, with any planned supply interruption notifications being notified to our customers. Any changes for billing for this service approved by Council are included in the Fees and Charges and are available on Council's website to customers and stakeholders

The next review of the CSS is due by 01 August 2026.

6. DRINKING WATER INCIDENTS

Section 102 of the Act refers to the reporting requirements when a provider is aware that their water quality exceeds the water quality criteria. The water quality criteria refer to the health guideline values in the current version of the Australian

Drinking Water Guidelines, plus any other requirement from Queensland Department of Health or the Department of Regional Development Manufacturing and Water as stated in their regulations.

There were no incidents reported to the regulator in FY 2023/2024.

7. CUSTOMER COMPLAINTS

In FY 2023/2024 there were no complaints related to the quality of water or water delivery in our drinking water supply to our customers.

8. WATER QUALITY INFORMATION

Aurukun Shire Council undertakes water quality monitoring to ensure that the water quality that we provide to our customers is safe. The following page provides detail of the treated/reticulated water quality for 2023/2024 for the range of parameters tested. Three number of weekly raw water samples and one quarterly sample was missed due to staff absences and cancellation of plane flights to send the samples to the laboratory for testing. Council has updated the sampling procedure to ensure water testing is undertaken including when regular staff are absent.

These results are extracted from SWIM Local, and statistics calculated from the extracted data for the appropriate time range. Averages including results under limit of detection (LOD) are calculated using $0.5 \times \text{LOD}$ and only given if result is over LOD.

Table 2 E. coli compliance

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
No. of samples collected	9	8	6	9	8	4	9	8	8	9	8	8
No. of samples collected in which <i>E. coli</i> is detected (i.e. a failure)	0	0	0	0	0	0	0	0	0	0	0	0
No. of samples collected in previous 12 months	89	90	88	88	90	88	88	92	94	95	94	94
No. of failures in previous 12 months	0	0	0	0	0	0	0	0	0	0	0	0
% of samples that comply	100	100	100	100	100	100	100	100	100	100	100	100
Compliance with 98% annual value	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

Table 2 Reticulation Network Data

	Parameter	Unit	Samples Required	Samples Taken	Min of Value	Max of Value	Median of Value	Average of Value	ADWG Value	No of Exceedances
Operator Data	Free Chlorine	mg/L	1464	1820	0.25	2.48	0.78	0.81	5	0
	Total Chlorine	mg/L	0	1815	0.37	1.95*	0.79	0.87	5	0
Lab Data	<i>E. coli</i>	CFU/100mL	78	94	<1	<1	<1	<1	<1	0
	Free Chlorine	mg/L	78	93	0.12	1.2	0.83	0.83	5	0
	pH		78	93	7	7.7	7.4	7.4	6.5-8.5	0
	Turbidity	NTU	78	99	0.01	0.9	0.15	0.18	5	0
	pH Red		1464	1820	6.53	7.97	7.09	7.1	6.5-8.5	0
	Chlorate	mg/L	4	0	0	0	0	0	0.8*	-

Table 3 Groundwater Monitoring Data

	Parameter	Unit	Samples Required	Sample Taken	Min of Value	Max of Value	Median Value	Average Value
Lab Data Comb Bores (Weekly)	Ecoli	CFU/100mL	52	49	<1	<1	<1	<1
	Nitrate	mg/L as N	52	49	0.55	1.2	0.89	0.905
	Nitrite	Mg/L as N	52	49	<0.01	0.01	<0.01	0.0053
	TON	Mg/L as N	52	49	0.55	1.5	0.89	0.906
Lab Data Bores 1-5 (Quarterly)	Ammonia	Mg/L as N	20	19	<0.02	<0.03	<0.02	0.02
	E coli	CFU/100mL	20	19	<1	1	<1	1
	Electrical Conductance	µS/cm	0	12	28	110	86	75
	ICPMS Aluminium	Mg/L	20	19	<0.015	0.2	<0.015	0.041
	ICPMS Copper	Mg/L	20	19	0.009	0.051	0.018	0.019
	ICPMS Iron	Mg/L	20	19	<0.008	1.21	0.024	0.152
	ICPMS Lead	Mg/L	20	19	0.001	0.008	0.003	0.003
	ICPMS Manganese	Mg/L	20	19	0.0008	0.0209	0.0034	0.004
	ICPMS Nickel	Mg/L	20	19	<0.0005	0.0045	0.0014	0.0015
	Nitrate	Mg/L as N	20	19	0.53	1.4	0.82	0.86
	Nitrite	Mg/L as N	20	19	<0.01	<0.01	<0.01	0.01
	pH		20	19	4.8	6	5.2	5.3
	Salinity (psu)	psu	0	12	0.0204	0.0541	0.0451	0.0406
	TON	Mg/L as N	20	19	0.53	1.4	0.82	0.86

Note: The DWQMP requires quarterly testing at the five bores for the parameters above, however, Electrical Conductance and Salinity are not included in the DWQMP.