



DWQMP Report 2022/2023

Aurukun Shire Council

20/11/2023



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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 km<sup>2</sup>, the water supply services are largely only provided to the township of Aurukun, an area of less than 1 km<sup>2</sup>.

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 (2021)	1,101
Future Connected Population (2031)	771
Current Connections (approx.)	320
Current Demand (approx.)	511 ML/a; 1.4ML/day
Future Demand (2031)	357 ML/a

Population in Aurukun is currently declining ~3% per annum. Demand forecasts based on current per capita consumption (projected to future population).

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.

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. The newly built treatment plant is fully automated, runs on SCADA and sends out alerts to the operators.

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 airconditioned to extend the shelf life of sodium hypochlorite and protect the plant equipment from the, at times, very hot climate of the region.

During the FY 22/23 the ASC scheme was operated as outlined in DWQMP Version 1.3 (approved plan throughout FY 22/23), however the new treatment plant description can be found in the revised 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 22/23 was either fully Cert 3 qualified or currently undertaking Cert 3 training.

## 3. REVIEWS

Council has completed a review of the DWQMP in this reporting year. The review resulted in the need for an amendment of the plan to capture the changes to the treatment system which occurred by installing a new treatment plant. The amended DWQMP was submitted to the regulator on 16 June 2023. The amended plan was approved by the regulator on 14 September 2023. The next review will occur as determined in the regulator's information notice.

**Table 2 DWQMP Review Outcome**

Proposed amendment	List of amendment(s) to the DWQMP
Registered service details	Updated positions responsible
Details of infrastructure for providing the service	System change from chlorine gas to liquid chlorine, System change from Soda ash to Caustic soda
Identify hazards and hazardous events	Reassessed hazards and hazardous events e.g., chlorate
Information gathering – water quality and catchment characteristics	Updated
Assessment of risks	Reassessed
Risk management measures	-
Operation and maintenance procedures	Updated Operation control e.g., CCPs.
Management of incidents and emergencies	Updated council reporting lines and personnel responsibilities
Risk management improvement program	Updated: e.g., included development of relevant SOPs for new treatment plant, Ordering procedures for new chemicals etc.
Service wide support – information management	-
Operational monitoring	Adjusted to name changes of monitoring points
Verification monitoring	Groundwater monitoring adjusted, added currently monitored parameters, added chlorate
Other (please detail)	Added Aurukun Infrastructure Overlay

## 4.AUDITS

A regulatory audit was not required during this financial year.

## 5.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 2022/2023.

## 6.CUSTOMER COMPLAINTS

In FY 2022/2023 there were no complaints related to the quality of water in our drinking water supplies.

## 7.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 2021/2022 for the range of parameters tested.

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 3 *E. coli* compliance

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
No. of samples collected	10	9	10	12	8	7	12	6	8	10	12	10
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	104	104	102	102	104	102	109	117	116	114	114	114
No. of failures in previous 12 months	0	0	0	0	0	0	0	0	0	0	0	0
% of samples that comply	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Compliance with 98% annual value	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

Table 4 Reticulation Data

		Unit	Count of Value	Min of Value	Max of Value	Average of Value	ADWG (Health) Exceedances
Operator Data	Free Chlorine	mg/L	1314	0	1.81	0.74	-
	Total Chlorine	mg/L	1313	0	1.82	0.77	-
	pH		1312	6.49	8.45	7.10	-
Lab Data	<i>E. coli</i>	CFU/100mL	68	0	0	-	-
	Free Chlorine	mg/L	30	0.23	1.2	0.84	-
	pH		30	6	7.8	7.19	-
	Turbidity	NTU	30	0.1	11	0.71	-
	Electrical Conductance	µS/cm	8	27	110	76.75	-
	Salinity (psu)	psu	8	0.0203	0.0555	0.04	-

Table 5 Verification data at WTP

		Unit	Count of Value	Min of Value	Max of Value	Average of Value	ADWG (Health) Exceedances
Lab Data	<i>E. coli</i>	CFU/100mL	46	0	0	-	-
	Free Chlorine	mg/L	33	0.47	1.6	0.88	-
	pH		33	5.4	7.5	6.95	-
	Turbidity	NTU	33	0.1	1.4	0.23	-