



Drinking Water Quality Management Plan Report

Paroo Shire Council
SPID: 101

1 July 2017 to 30 July 2018

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Glossary of terms

ADWG	Australian Drinking Water Guideline (2001)
DWQMP	Drinking Water Quality Management Plan
<i>E. coli</i>	Escherichia coli, a bacterium that is considered to indicate the presence of faecal contamination and is a potential health risk
EHO	Environmental Health Officer
ERP	Emergency Response Procedures
ML	Megalitre
OFI	Opportunities for Improvement
pH	Power of Hydrogen
PSC	Paroo Shire Council
W&SS	Water and Sewerage Supervisor

1 Introduction

This report documents the performance of Paroo Shire Council's drinking water service for the 2017-2018 year.

It details performance of the water supply quality and the implementation of actions detailed in the Drinking Water Quality Management Plan (DWQMP) required under the Water Supply (Safety and Reliability) Act 2008 (the Act).

This report assists the regulator to determine whether the approved DWQMP and any approval conditions have been complied with and provides a mechanism for providers to report publicly on their performance in managing drinking water quality.

This template has been prepared in accordance with the Water Industry Regulatory Reform – drinking water quality management report factsheet published by the Department of Energy and Water Supply, Queensland, www.dews.qld.gov.au

2 Overview of operations

This report relates to the drinking water supply schemes that the Paroo Shire Council owned and operated from 1 July 2017 to 30 June 2018. Please note that a revised DWQMP has been submitted to the Regulator and is being assessed.

Cunnamulla

- Cunnamulla water supply consists of four (4) bores drawing from the Great Artesian Basin, Bores 1 and 3 are the primary bores operating 10 – 12 hours per day.
- Bore 4 is the secondary bore operating 9 hours per day and
- Bore 2 is the back up bore operating on average 3 hours a day.

The bore pumps supply to an elevated water tower. When the tower reservoir is full a sensor shuts down the pumps and the reticulation system is gravity fed from the tower.

Water is supplied to approximately 1022 residents.

Eulo

Eulo water supply consists of a single bore pumping into a ground level reservoir in close proximity to the bore head. The water then flows through reticulation via variable speed pumps. There is an ultraviolet disinfection unit on the outlet from the reservoir to disinfect the water prior to distribution into the reticulation network.

Water is supplied to approximately 95 residents.

Yowah

Yowah water supply consists of a single bore drawing from the Great Artesian Basin. The bore supplies water directly into the reticulation network.

Water is supplied to approximately 141 residents and visitors.

Wyandra

Wyandra water supply system consists of a single bore drawing from the Great Artesian Basin. The bore feeds supply straight into the reticulation system relying on natural artesian pressure with no storage system in place.

Water is supplied to approximately 99 residents.

3 Actions taken to implement the DWQMP

Progress in implementing the risk management improvement program.

The water schemes within Paroo Shire are a simple design with no treatment plant or systems used in Cunnamulla, Yowah and Wyandra. Eulo uses an UV disinfection unit.

Council is currently investigating options available to record all information relative to maintenance and repairs to infrastructure. Council continues to develop and implement consistent procedures and reporting programs to record all incidents and management documentation.

Water testing is conducted intermittently. In the future, results will be recorded electronically in a productive and efficient manner however for 2017-2018 this relied on manual collection and documentation.

Revisions made to the operational monitoring program to assist in maintain the compliance with the water quality criteria in verification monitoring

Commencing April 2018, a dedicated Environmental Health Officer has carried out weekly testing of water supply points as required in the DWQMP.

Amendments to the DWQMP

As reported in this year's 2017 – 2018 DWQMP annual report an amendment was lodged with the Regulator. Comment was received from the Regulator seeking further information on 21 December 2018. Council is presently working on a response.

The amendments submitted included changes and updates to:

- Updated population estimates and water supply volumes,
- Updated all scheme infrastructure details,
- New hazards and hazardous events identified in 2018 risk review,
- All available water quality data reviewed and summarised. New Appendix A includes summarized WQ data new Appendix B includes all bore report cards,
- 2018 risk assessment has superseded the original,
- Risk management measures section updated,
- Additional and developed operation and maintenance procedures,
- ERP modified and updated, emergency contact list included, reference to Q Health,
- Update the 2018 risk assessment,
- Service wide support section updated,
- Minor updates to verification monitoring, and,
- New document template/layout.

Refer to ADWG for a Drinking Water Service for the water quality criteria for drinking water.

4 Verification monitoring – water quality information and summary

Paroo Shire conducts routine microbiological water quality testing for *E. coli* from the 4 water schemes. The results of the water sampling for the financial year 2017/2018 shown below.

Table 1- Verification monitoring

Year		Cunnamulla	Eulo	Wyandra	Yowah
2017	# Samples	156	36	36	36
	# Detects	0	0	0	0
	% Negative	100	100	100	100
2018 (half year to July)	# Samples	92	31	33	33
	# Detects	0	0	0	0
	% Negative	100	100	100	100

There were no non-compliant samples (where *E. coli* was detected) for the 2017/2018 period.

5 Incidents reported to the regulator

There were no non-compliant samples taken and therefore no notifications were made to the regulator.

6 Customer complaints

Paroo Shire Council is required to report on the number of complaints, general details of complaint and the responses undertaken. There are a few complaints on record however they are almost exclusively from tourist or new residents who are unaccustomed to the sulphurous odour of the artesian water.

Throughout the year no complaints were received about water quality.

7 DWQMP review outcomes

Bligh Tanner conducted an audit of PSC's approved DWQMP on the 22 May 2018. The audit included site inspections of Cunnamulla, Eulo, and Wyandra schemes. The scope of the audit was in accordance with Drinking Water Quality Management Plan Review and Audit Guidelines 2013.

There were 7 non-conformances identified, in relation accuracy to monitoring and performance data, implementation of preventive measures and operational maintenance procedures.

The overall summary of non-conformances is shown in

Table 2 – DWQMP review outcomes

ADWG element	Area	Non-conformances
2	Water supply system analysis	No evidence that the DWQMP was reviewed in 2016 as required under the Information Notice.
4	Operational procedures	The DWQMP commitment to revise the old procedures and develop the additional documents has not been met.
5	Drinking water quality monitoring	Under the Public Health Regulation 2005, samples should be tested for E. coli in Cunnamulla every week (minimum of 1 sample per week). There have been many weeks in which no samples were tested.
6	Incident and emergency response protocols	The approved DWQMP makes a direct statement that employees are trained in incident and emergency response procedures, with refresher courses being undertaken regularly. The auditor was advised that this does not happen.
10	Management of documentation and records	At the time of the audit, Council couldn't locate past incident reports (e.g. E. coli detections from 2014 & 2015). The DWQMP states that regulator correspondence is saved electronically as well as hard copy, so the inability to locate this information is a non-conformance with the plan.
10	Reporting	The latest (2016-17) DWQMP report could not be found on the Council website, however it was provided by Council prior to the audit. There appear to be inconsistencies with the accuracy of data in the 2016-17 annual report (refer to the detailed findings for examples).
12	Drinking water quality management improvement plan	Some of the improvement plan items have not been implemented. These include: <ul style="list-style-type: none"> - Procedures have not been updated or developed. - There is no formal flushing program undertaken in Wyandra. - Few bore casing inspections have been undertaken and there is no schedule in place. In light of the above, it is also noted that DWQMP reports may suggest a higher level of RMIP progress than was able to be verified during the audit.

8 DWQMP audit findings

Table 3 – DWQMP audit findings - Review Date: 07/08/2018

Recommendation or OFI	Actions	Status of Actions	Responsible Officer/ Position
Recommendation			
Operations and Maintenance procedures in the DWQMP are not current	The existing procedures were reviewed and updated during the DWQMP amendment process. The UV Maintenance Procedure has been developed (September 2018). Some additional procedures have been identified as requiring development, and included in the RMIP.	Complete	Chief of Operations /W&SS
Incident/Emergency level description in the DWQMP do not represent actual practice	Incidents and Emergencies section of the DWQMP has been fully reviewed and updated; there are now only three levels of incidents.	Complete	Chief of Operations /W&SS
DWQMP does not include a summary of most recent water quality data	All available water quality data was summarised and reviewed, and discussed during the risk assessment workshop in August 2018.	Complete	Chief of Operations / W&SS / Shire Services
Drinking Water Quality Monitoring	During 2018, a dedicated Environmental Health Officer has carried out weekly testing of water supply points as required in the DWQMP.	Complete	EHO
OFI			
DWQMP Update	The DWQMP has been comprehensively reviewed in August 2018. All new bores have been described in the plan. The Cunnamulla Reservoir capacity has been corrected. The Eulo elevated tower is shown in the updated schematic (valved off), UV bypass is shown, number of ground level tanks corrected. The bore logs have also been updated.	Complete	Chief of Operations / W&SS / Shire Services
Key stakeholders table from the DWQMP Update	The key stakeholders table has been updated, and a new Emergency Contacts List table has been included (covering hospital, medical centre, aged care and schools).	In-progress	Chief of Operations / EHO / Shire Services
Operational and Verification Monitoring Program Update	The current operational and verification monitoring programs have been described in the DWQMP. As all bores will be fenced by the time of DWQMP approval, this has been left in the DWQMP as applying to "all schemes".	Complete	Chief of Operations / W&SS / Shire Services