



SPID: 176

**Drinking Water Quality Management Plan  
(DWQMP)  
Report  
2015-2016**

Main Street Mapoon, Qld 4874

(07) 4082 5211

[Mapoon.admin@mapoon.qld.gov.au](mailto:Mapoon.admin@mapoon.qld.gov.au)

## Glossary of terms

ADWG 2004	Australian Drinking Water Guidelines (2004). Published by the National Health and Medical Research Council of Australia
ADWG 2011	Australian Drinking Water Guidelines (2011). Published by the National Health and Medical Research Council of Australia
<i>E. coli</i>	<i>Escherichia coli</i> , a bacterium which is considered to indicate the presence of faecal contamination and therefore potential health risk
HACCP	Hazard Analysis and Critical Control Points certification for protecting drinking water quality
mg/L	Milligrams per litre
NTU	Nephelometric Turbidity Units
MPN/100mL	Most probable number per 100 millilitres
CFU/100mL	Colony forming units per 100 millilitres
<	Less than
>	Greater than

## 1. Introduction

This report documents the performance of Mapoon Aboriginal Shire Council's drinking water service with respect to water quality and performance in implementing the actions detailed in the drinking water quality management plan (DWQMP) as required under the *Water Supply (Safety and Reliability) Act 2008* (the Act).

The 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 report has been prepared in accordance with the *Water Industry Regulatory Reform – drinking water quality management plan report factsheet* published by the Department of Energy and Water Supply, Queensland, accessible at [www.dews.qld.gov.au](http://www.dews.qld.gov.au).

## 2. Overview of Operations (optional)

This report relates specifically to the water supply for Mapoon Aboriginal Shire Council.

The Mapoon water supply sources water from the 5 bores which are spread across the Mapoon designated water catchment area – located in lot 4 (Town Area).

The treatment comprises:

- Liquid Chlorine

Water is disinfected before reticulation.

## 3. Actions taken to implement the DWQMP

### **Progress in implementing the risk management improvement program**

E.coli monitoring conducted as per verification monitoring program. Notifications issued are disseminated to affected contact points and communication issued regarding the hazard and corrective action required.

### **Revisions made to the operational monitoring program to assist in maintaining the compliance with water quality criteria<sup>1</sup> in verification monitoring.**

*A watching brief is maintained on the monitoring program. No changes have been made during the period - risk assessments still current.*

### **Amendments made to the DWQMP**

*Current update in progress – changes and associated amendments will follow..*

---

<sup>1</sup> Refer to *Water Quality and Reporting Guideline for a Drinking Water Service* for the water quality criteria for drinking water.

## 4. Compliance with water quality criteria for drinking water

The water quality criteria mean health guideline values in the most current Australian Drinking Water Guidelines, as well as the standards in the Public Health Regulation 2005.

Please refer appendix A – Water quality data

## 5. Notifications to the Regulator under sections 102 and 102A of the Act

This financial year there were 1 instances where the Regulator was notified under sections 102 or 102A of the Act.

### **Non-compliances with the water quality criteria and corrective and preventive actions undertaken**

**Incident Description:** The first non-compliance was a detection of *E. coli* from a routine sample taken on 09/05/16 at Thungoo. Est 3 cfu *E. coli* organisms per 100 mL was detected, with a disinfection residual of 0. mg/L – Add chlorine.

**Corrective and Preventative Actions:** The area was flushed, and the free chlorine increased to 1.5 mg/L. A small hole in the vermin proofing of the reservoir was located and fixed to prevent future animal ingress. All follow up samples were free of *E. coli*.

## 6. Customer complaints related to water quality

Mapoon Aboriginal Shire Council is required to report on the number of complaints, general details of complaints, and the responses undertaken.

Throughout the year the following complaints about water quality were received:

**Table 1 - complaints about water quality, (including per 1000 customers)**

	Suspected Illness	Discoloured water	Taste and odour	Total
Mapoon water supply scheme	0	0	0	0
Total	0	0	0	0

0 customer complaints were received from within the Mapoon Aboriginal Shire Council during the reporting period related to dirty water. The dirty water complaints were a result of a burst on a large diameter water main. Staff conducted the repair while ensuring the water quality was protected at all times, as well as managing storage levels in the affected reservoirs to ensure no one was without water. The area was flushed to remove the dirty water to achieve detectable chlorine residual results. The flushing targeted specific areas such as dead-end mains, where it was anticipated the dirty water would not be flushed through normal use. All customers who reported a complaint were advised of the reasons for the dirty water and were requested to allow the main a short period of time to settle.

The taste and odour complaints received are usually related to algal blooms in the water supply dam. Once reported by customers or detected by our employees, Mapoon Aboriginal Shire Council investigates the issue to devise a prompt resolution, which may include changing water source, altering the depth of the offtake, or flushing the reticulation. Investigation of each complaint found no public health risks.

## 7. Findings and recommendations of the DWQMP auditor

The regular audit DWQMP was not required this financial year. The first regular audit is due by 17/10/17.

## 8. Outcome of the review of the DWQMP and how issues raised have been addressed

**Choose the appropriate response below.**

A regular review of the DWQMP was conducted between Oct 2015 and Aug 2016. The purpose of the review was to ensure that the DWQMP remains relevant, having regard to the operation of the drinking water service. The review was conducted by MASC authorised officers:

- *Wayne Collinson – Essential Services Officer*
- *Willie Ase – Animal Management / Water Officer*

The review made the following findings:

- *Now implemented gas chlorination from hypo*
- *PH correction installed*

## Appendix A – Summary of compliance with water quality criteria

The results from the verification monitoring program have been compared against the levels of the water quality criteria specified by the Regulator in the *Water Quality and Reporting Guideline for a Drinking Water Service*.

The reported statistics do not include results derived from repeat samples, or from emergency or investigative samples undertaken in response to an elevated result.

### **Table 2 - Verification monitoring results**

*Double click to edit in Excel. Copy and paste table and caption for each scheme. The original Excel tool is accessible at [www.dews.qld.gov.au](http://www.dews.qld.gov.au).*

**Table 3 - Reticulation *E. coli* verification monitoring**

Drinking water scheme: Mapoon Aboriginal Shire Council

Year	2015-2016											
Month	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
No. of samples collected	3	3	3	3	3	3	3	3	3	3	3	3
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	1	0
No. of samples collected in previous 12 month period	36	36	36	36	36	36	36	36	36	36	36	36
No. of failures for previous 12 month period	1	1	1	1	1	0	0	0	0	0	1	1
% of samples that comply	97.2%	97.2%	97.2%	97.2%	97.2%	100.0%	100.0%	100.0%	100.0%	100.0%	97.2%	97.2%
Compliance with 98% annual value	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	NO	NO

**CALCULATE PERCENTAGE USING A TWELVE (12) MONTH 'ROLLING' ANNUAL VALUE**

The *Public Health Regulation 2005* (the regulation) requires that 98 per cent of samples taken in a 12 month period should contain no *E. Coli*. This requirement is referred to as the 'annual value' in Schedule 3A of the regulation.

This requirement comes into effect once you have 12 months data and should be assessed every month based on the previous 12 months data (so that it is a 'rolling' assessment).



## Appendix B – Implementation of the DWQMP Risk Management Improvement Program

pH info:

Item	Hazard	Hazards event	Risk Management Improvement Action	Timeframe	Responsibility	Current Status
2	pH Correction	Unable to correct pH	Investigate issue with filter media, the grade of the calcium carbonate maybe too fine	Dec 2016	Operations Manager	Currently implemented soda ash correctional system
3		Equipment failure	Investigate issue with filter media, the grade of the calcium carbonate may be too fine	Dec 2016	Operations Manager	