

Drinking Water Quality Management Plan (DWQMP) report

2015-2016

Torres Shire Council

SPID: 516

68 Douglas St,
Thursday Island QLD 4875
40691 336
admin@torres.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 Torres 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 template 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.

2. Overview of Operations (optional)

This section is intended to inform the reader of the context of the water supply schemes that this annual report relates to.

The provider may choose to provide detail such as the number of customers supplied, the type of treatment and the overall performance of the provider. It may provide an introduction to the provider's development and application of the drinking water quality management DWQMP, and the purpose of the DWQMP (to protect public health by ensuring the provision of a safe water supply).

The Torres Shire sources water from the Loggy Creek Dam on Horn Island. The treatment comprises chlorination only.

3. Actions taken to implement the DWQMP

Describe how your DWQMP has been implemented – for example, if operational limits have been set, describe how this has ensured water quality.

Progress in implementing the risk management improvement program

Refer to the Appendices for a summary of progress in implementing each of the Improvement Program actions.

Please refer to appendix B

Provide the general description of activities, factors affecting progress, etc

As well as Coli-Alert testing, samples are taken and sent to the Cairns Regional Council Laboratory every 3 months to supplement the Coli-Alert testing results.

Revisions made to the operational monitoring program to assist in maintaining the compliance with water quality criteria¹ in verification monitoring.

Describe any revisions to operational monitoring programs and a discussion as to whether this changes the risk assessment.

No revisions were made in the 2015/16 year. The next review is due before 30 June 2017.

Amendments made to the DWQMP

Describe any amendments to the DWQMP whether initiated internally, or required by the Regulator.

Amendments were made to the Operational Monitoring and Verification Monitoring in the DWQMP and submitted on 20 July 2016.

¹ 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.

- You should summarise the results of the verification monitoring for your drinking water service.
- Present the data in a way that is most meaningful, such as grouping by town serviced. Examples are shown in the report template.

Ensure you include:

- parameter
- unit of measure
- total number of samples collected
- number of samples that did not meet the water quality criteria
- maximum concentration or count
- Detail the months, if any, where the annual value for E. coli was not achieved for the service.

Comment on whether the water quality results met the recommended values in the Australian Drinking Water Guidelines and the E. coli and fluoride standards.

See appendix A for reporting.

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

This financial year there were nil 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

Describe each notification and include detail of the incident and the corrective and preventative actions that have been taken– see example below

N/A due to nil non-compliances in the 2015/16 reporting period.

Prescribed incidents or Events reported to the Regulator and corrective and preventive actions undertaken.

Describe each notification and include detail of the incident and the corrective and preventative actions that have been taken

N/A

6. Customer complaints related to water quality

Torres 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
Scheme 1	X (0.XX)			
Scheme 2				
Scheme 3				
Scheme 4				
Scheme 5				
Scheme 6				
Total				NIL

Suspected Illness

Complaints are sometimes received from customers who suspect their water may be associated with an illness they are experiencing. Torres Shire Council investigates each complaint relating to alleged illness from our water quality, typically by testing the customers tap and closest reticulation sampling point for the presence of *E. coli*.

During 2015/16, there were nil confirmed cases of illness arising from the water supply system.

Discoloured water – there were NIL complaints

Taste and odour – there were NIL complaints

7. Findings and recommendations of the DWQMP auditor

This is yet to be established although scheduled for 2017.

<<Provider name>> arranged for <<Auditor name>> to conduct a regular audit of the DWQMP during <<date range when audit was conducted>>, covering the time period from <<year range>>. The purpose of the audit was to verify the accuracy of the monitoring and performance data provided to the Regulator; assess compliance with the DWQMP; and to assess the relevance of the DWQMP in relation to the service provided. A summary of, and recommendations from, the Audit report are included below:

- <<summary of auditor's findings>>
- <<any recommendations of the auditor>>

The audit report guideline requires that the report also states the planned actions to implement audit recommendations. This is best achieved by individually addressing each recommendation made by the auditor.

If the provider has not, or does not intend to implement the actions, an explanation as to why the recommendation is not going to be adopted is required.

Torres Shire Council will be making provisions for a third party audit at the beginning of the 2017 and will be submitted before 30 June 2017.

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

Choose the appropriate response below.

The next internal review of the DWQMP is due before 30 June 2017. This will be completed after the third party audit is undertaken.

OR

A regular review of the DWQMP was conducted between <<date range>>, and covered the time period from <<date range>>. 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:

- <<List of people and their position involved in the review>>

The review made the following findings:

- <<Summarise the findings of the regular review>>

Hazards and hazardous events that affected the quality of drinking water during the year and which were not addressed in the DWQMP

N/A

Describe all hazards and hazardous events that were identified in the review that were not addressed in the approved DWQMP. Apply the risk assessment methodology for your DWQMP, and identify the preventative measures that are required to effectively manage the risk, or the improvement items that

As a result of the findings of the review, <<the following changes/ no changes>> have been made to the DWQMP:

- <<Specify the changes that have been made>>

Note: If the review identifies that the DWQMP needs to be changed to reflect changes in the operation of the water service, Section 107 (7) requires (a) that the DWQMP is amended, and (b) that the provider apply to the Regulator for approval of the amended DWQMP.

- <<Indicate the status of any amendment applications current – for example, under assessment by the Regulator, subject to an information requirement notice, etc.>>

If the provider does not intend to make changes to the DWQMP after the review, an explanation as to why there are no changes is to be included in the annual report.

- <<when the review was carried out
- who was involved in the review
- summary of the findings of the review
- any changes made to the DWQMP as a result of the review
- explanation of these changes or lack of changes
- status of the application to the Regulator for approval of the revised DWQMP.>>

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.

Verification monitoring is carried out as per the program stated in the DWQMP.

The verification monitoring remains appropriate to provide assurance to Council that the Coli-Alert system is accurate.

As per ADWG recommendations, the data could be presented per water quality monitoring zone. Additionally the 95th percentile statistic could be stated, but these aspects are beyond the minimum requirements in the annual report.

Table 2 - Verification monitoring results

Scheme name	Scheme component	Parameter	Units	Frequency of sampling	Total No. samples collected	No. of samples in which parameter was detected	No. of samples exceeding water quality criteria	Min	Max	Average (Mean)	Limit of reporting	Laboratory name
A	Reticulation	Hetroplate Count	CFU/ml	Quarterly	23	0	0	<1	>300		<1	Cairns Regional Council
B	Reticulation	E.Coli	CFU/100ml	Quarterly	23	0	0	<1	<1		<1	Cairns Regional Council
C	Reticulation	Coliforms	CFU/100ml	Quarterly	23	0	0	<1	>100		<1	Cairns Regional Council
D	Reticulation	E.Coli	CFU/100ml	Weekly	9	0	0	<1	<1		<1	In house testing
E	Reticulation	Chlorine	CFU/100ml	Weekly		0	0				<1	In house testing

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.

Table 3 - Reticulation *E. coli* verification monitoring

Year	2015-2016											
Month	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March	Apr	May	June
No. of samples collected	5	4	6	4	4	6	4	4	6	4	5	5
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 month period	5	9	15	19	23	29	33	37	43	47	52	57
No. of failures for previous 12 month period	0	0	0	0	0	0	0	0	0	0	0	0
% of samples that comply	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Compliance with 98% annual value	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

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

Example:

Table 4 – Progress against the risk management improvement program in the approved DWQMP

Item No.	Scheme Component / Sub-component	Action(s)	Target date/s	Status as at <<date>>	(If implementing these actions will take longer than anticipated, please provide detail, as it may affect the approved DWQMP)
7.1.1	Operators qualifications	Implement training	Start training June 2013	Completed	
7.1.2	Ability to meet requirements to sample microbiological weekly Operational performance	Implement in house bacteriological testing weekly for retesting	June 2013	Completed	
7.1.3		Develop procedures as identified in Section 8	June 2013	Completed	
7.1.4	High turbidity in raw water. Currently there is no filtration or clarification for Horn Island water supply	Commence turbidity monitoring to determine need for filtration at Horn Island..	June 2013	Uncompleted	Waiting on funding through MIP 6 Program to set up appropriate infrastructure. Formal notification expected in 2017.
7.1.5	Electricity Failure	Install proposed backup generator.	June 2013	Completed	
7.1.6	Disinfection byproducts	Commence turbidity monitoring to determine need for filtration at Horn Island.	June 2013	Uncompleted	Waiting on funding through MIP 6 Program to set up appropriate infrastructure. Formal notification expected in 2017.
7.1.7	Dead end in distribution network	Investigate options for reducing dead ends by designing a looped reticulation system	June 2015	Completed	
7.1.8	Burst supply line form reservoir to township	Investigate options for a backup supply line to Milman Hill.	June 2013	Completed.	Thursday Island Dam is the back up supply
7.1.9	Chlorine Quality	Commence testing of chlorine quality.	June 2013	Completed	
7.1.10	Chemicals entering water supplies	Investigate implementing ongoing chemical sampling (e.g. annually) in supply Dams	June 2013	Completed	N/A