Drinking Water Quality Management Plan (DWQMP) report

2014-15

Maranoa Regional Council

SPID: 494

Cnr Bungil & Quintin Streets
Roma QLD 4455
1300 007 662
council@maranoa.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
E. coli	*Escherichia coli*, 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 Maranoa Regional 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. Actions taken to implement the DWQMP

Operational limits have been set and are monitored by field crews. Verification monitoring is also carried out by our laboratory staff on a routine basis. Results that are out of operational limits are referred to supervisors for corrective action.

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.

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

The current plan has been amended significantly to better reflect the requirements for the schemes.

Amendments made to the DWQMP

Following internal review of the current plan by Bligh Tanner, the entire plan was substantially reworked, to allow for the document to be easily followed by field teams. The new plan structure has an overarching plan, with sub-sections for each scheme area. These areas are covered by the same work crew so is a logical separation of the plan, as each area has the information that pertains directly to their area.

3. 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.

Amby

Parameter	Unit	Limit	No of Samples	No of Non Conforming	Max
E. coli	MPN/100mL	<1	43	0	0
coliforms	MPN/100mL	N/A	43	N/A	
pH	pH	6.5 - 8.5	40		9.08
Chlorine (Free)	mg/L	>0.5	29	0	1.70
Chlorine (Total)	mg/L	<5	24	0	1.90

Injune

Parameter	Unit	Limit	No of Samples	No of Non Conforming	Max
E. coli	MPN/100mL	<1	43	0	0
coliforms	MPN/100mL	N/A	43	N/A	
pH	pH	6.5 - 8.5	40		9.08
Chlorine (Free)	mg/L	>0.5	29	0	1.70
Chlorine (Total)	mg/L	<5	24	0	1.90

Jackson

Parameter	Unit	Limit	No of Samples	No of Non Conforming	Max
E. coli	MPN/100mL	<1	31	0	0
coliforms	MPN/100mL	N/A	31	N/A	
pH	pH	6.5 - 8.5	22		9.22
Chlorine (Free)	mg/L	>0.5	22	0	0.05
Chlorine (Total)	mg/L	<5	14	0	0.09

Mitchell

Parameter	Unit	Limit	No of Samples	No of Non Conforming	Max
E. coli	MPN/100mL	<1	31	0	0
coliforms	MPN/100mL	N/A	31	N/A	
pH	pH	6.5 - 8.5	22		9.22
Chlorine (Free)	mg/L	>0.5	22	0	0.05
Chlorine (Total)	mg/L	<5	14	0	0.09

Muckadilla

Parameter	Unit	Limit	No of Samples	No of Non Conforming	Max
E. coli	MPN/100mL	<1	31	0	0
coliforms	MPN/100mL	N/A	31	N/A	
pH	pH	6.5 - 8.5	22		9.22
Chlorine (Free)	mg/L	>0.5	22	0	0.05
Chlorine (Total)	mg/L	<5	14	0	0.09

Mungallala

Parameter	Unit	Limit	No of Samples	No of Non Conforming	Max
E. coli	MPN/100mL	<1	31	0	0
coliforms	MPN/100mL	N/A	31	N/A	
pH	pH	6.5 - 8.5	22		9.22
Chlorine (Free)	mg/L	>0.5	22	0	0.05
Chlorine (Total)	mg/L	<5	14	0	0.09

Roma

Parameter	Unit	Limit	No of Samples	No of Non Conforming	Max
E. coli	MPN/100mL	<1	31	0	0
coliforms	MPN/100mL	N/A	31	N/A	
pH	pH	6.5 - 8.5	22		9.22
Chlorine (Free)	mg/L	>0.5	22	0	0.05
Chlorine (Total)	mg/L	<5	14	0	0.09

Surat

Parameter	Unit	Limit	No of Samples	No of Non Conforming	Max
E. coli	MPN/100mL	<1	31	0	0
coliforms	MPN/100mL	N/A	31	N/A	
pH	pH	6.5 - 8.5	22		9.22
Chlorine (Free)	mg/L	>0.5	22	0	0.05
Chlorine (Total)	mg/L	<5	14	0	0.09

Wallumbilla

Parameter	Unit	Limit	No of Samples	No of Non Conforming	Max
E. coli	MPN/100mL	<1	31	0	0
coliforms	MPN/100mL	N/A	31	N/A	
pH	pH	6.5 - 8.5	22		9.22
Chlorine (Free)	mg/L	>0.5	22	0	0.05
Chlorine (Total)	mg/L	<5	14	0	0.09

Yuleba

Parameter	Unit	Limit	No of Samples	No of Non Conforming	Max
E. coli	MPN/100mL	<1	31	0	0
coliforms	MPN/100mL	N/A	31	N/A	
pH	pH	6.5 - 8.5	22		9.22
Chlorine (Free)	mg/L	>0.5	22	0	0.05
Chlorine (Total)	mg/L	<5	14	0	0.09

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

This financial year there were 2 instances where the Regulator was notified under sections 102 or 102A of the Act. 1 of these notifications involved the detection of *E. coli* – an organism that may not directly represent a hazard to human health, but indicates the presence of recent faecal contamination. The remaining 1 notification; was a non-compliance with water quality criteria caused by lead. None of these incidents required Maranoa Regional Council to issue a boil water or do not drink notice in the communities.

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

DWI-7-494-00027

Incident Description: While undertaking water samples for standard water analysis, elevated levels of lead were detected. The testing laboratory noted the use of glass bottles as a likely cause of this result and follow-up samples were undertaken, due to the time of the year the results were note received until early 2015.

Corrective and Preventative Actions: Follow-up samples showed no elevated lead levels, confirming the previous results was from incorrect sampling procedure. Laboratory staff have updated sampling procedure to prevent this from reoccurring.

DWI-7-494-00028

Incident Description: The detection of *E. coli* from a routine sample taken in January 2015 at the Roma Airport, detected 1 *E. coli* organism per 100 mL.

Corrective and Preventative Actions: The source of the contamination was found to be fire storage tanks that are being used for water storage at the Roma Airport. Temporary recirculation pumps were installed in the tanks and they were manual dosed with chlorine and retested until no further samples were free of *E. coli*. There is a budget proposal for a permanent re-chlorination system to be installed at this site.

5. Customer complaints related to water quality

Maranoa Regional 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 1,000 customers)

# Complaints (# per 1,000 customers)	Suspected Illness	Discoloured water	Taste and odour	Total
Amby	0 (0.0)	2 (40.0)	2 (40.0)	**4 (80.0)**
Injune	1 (3.1)	4 (12.5)	0 (0.0)	**5 (15.6)**
Jackson	0 (0.0)	0 (0.0)	0 (0.0)	**0 (0.0)**
Mitchell	0 (0.0)	3 (3.2)	0 (0.0)	**3 (3.2)**
Muckadilla	0 (0.0)	0 (0.0)	0 (0.0)	**0 (0.0)**
Mungallala	0 (0.0)	1 (12.5)	0 (0.0)	**1 (12.5)**
Roma	2 (0.3)	8 (1.1)	10 (1.4)	**20 (2.9)**
Surat	0 (0.0)	0 (0.0)	0 (0.0)	**0 (0.0)**
Wallumbilla	1 (3.5)	0 (0.0)	0 (0.0)	**1 (3.5)**
Yuleba	0 (0.0)	0 (0.0)	0 (0.0)	**0 (0.0)**
Total	**4 (0.4)**	**18 (1.9)**	**12 (1.3)**	**34 (3.6)**

Suspected Illness

Complaints are sometimes received from customers who suspect their water may be associated with an illness they are experiencing. Maranoa Regional 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 2014/15, there were no confirmed cases of illness arising from the water supply system. With the reports that were received being for skin irritation following the introduction of chlorine disinfection in all towns. Chlorine levels were tested and found to be within acceptable limits and could not be adjusted lower without compromising chlorine residual in further segments of the network.

Discoloured water

In 2014/15, 18 customer complaints were received from within the towns of Amby, Injune, Mitchell, Mungallala and Roma. With most of these occurring in early 2015, relating to dirty water following the introduction of acid dosing for pH correction, as part of the new disinfection facilities. This change to the water appears to have caused deposits in the mains to dislodge. The areas were initially flushed to remove the dirty water and to achieve detectable chlorine residual results.

Air scouring was undertaken in February 2015; on all affected towns expect Roma, where conventional mains flushing proved effective. The air scouring in the towns was communicated to the community, and involved the scouring of all mains in the towns, with the scouring continuing until water flowed clearly. All residents in the towns were advised of the reasons for the dirty water by way of letter box drop. Flushing of the mains is being undertaken on a regular basis by operations staff and air scouring will be conducted again if required.

Taste and odour

The taste and odour complaints received are typically related to the smell of sulphur in the water supply bores. Once reported by customers or detected by our employees, Maranoa Regional Council investigates the issue to devise a prompt resolution, which may include flushing the reticulation. Investigation of each complaint found no public health risks. These odour complaints reoccur annually and coincide with hotter water being drawn up by the bores due to higher use during summer.

Several of the complaints received in 2014/15 were from residents objecting to the addition of chlorine to the water supply, we undertook testing of the levels and reassured the residents of the reasoning for chlorine to be introduced to protect public health.

6. Findings and recommendations of the DWQMP auditor

The next DWQMP audit is due before 25 June 2017.

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

A regular review of the DWQMP was conducted in June 2015. 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:

- Michael Lawrence – Bligh Tanner
- Troy Pettiford – Manager (Water, Sewerage & Gas)
- Ben Godford – Coordinator (Water, Sewerage & Gas Projects, Compliance & Laboratory)
- Mathew Liston – Coordinator (Water, Sewerage & Gas Operations)

As a result of the review, it was decided to undertake a comprehensive reworking of the current DWQMP. The amended plan was submitted on 25 August 2015, and is currently undergoing assessment by the Regulator.

Appendix A – Summary of compliance with water quality criteria

Table 2 - Reticulation *E. coli* verification monitoring

Drinking water scheme: Amby

Year	***2014/15***											
Month	***Jul***	***Aug***	***Sep***	***Oct***	***Nov***	***Dec***	***Jan***	***Feb***	***Mar***	***Apr***	***May***	***Jun***
No. of samples collected	3	3	2	3	4	4	4	4	4	4	4	4
No. of samples collected in which *E. coli* 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	3	6	8	11	15	19	23	27	31	35	39	43
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 refered 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).

Drinking water scheme: Injune

Year	*2014/15*											
Month	***Jul***	***Aug***	***Sep***	***Oct***	***Nov***	***Dec***	***Jan***	***Feb***	***Mar***	***Apr***	***May***	***Jun***
No. of samples collected	7	7	7	7	7	7	7	6	11	8	8	7
No. of samples collected in which *E. coli* 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	7	14	21	28	35	42	49	55	66	74	82	89
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 refered 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).

Drinking water scheme: Jackson

Year	*2014/15*											
Month	***Jul***	***Aug***	***Sep***	***Oct***	***Nov***	***Dec***	***Jan***	***Feb***	***Mar***	***Apr***	***May***	***Jun***
No. of samples collected	3	3	3	3	3	3	3	2	2	2	2	2
No. of samples collected in which *E. coli* 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	3	6	9	12	15	18	21	23	25	27	29	31
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 refered 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).

Drinking water scheme: Mitchell

Year	*2014/15*											
Month	***Jul***	***Aug***	***Sep***	***Oct***	***Nov***	***Dec***	***Jan***	***Feb***	***Mar***	***Apr***	***May***	***Jun***
No. of samples collected	9	9	9	9	9	9	9	9	10	7	8	8
No. of samples collected in which *E. coli* 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	9	18	27	36	45	54	63	72	82	89	97	105
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 refered 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).

Drinking water scheme: Muckadilla

Year	*2014/15*											
Month	***Jul***	***Aug***	***Sep***	***Oct***	***Nov***	***Dec***	***Jan***	***Feb***	***Mar***	***Apr***	***May***	***Jun***
No. of samples collected	2	2	2	2	2	2	2	4	2	2	2	2
No. of samples collected in which *E. coli* 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	2	4	6	8	10	12	14	18	20	22	24	26
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 refered 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).

Drinking water scheme: Mungallala

Year	*2014/15*											
Month	***Jul***	***Aug***	***Sep***	***Oct***	***Nov***	***Dec***	***Jan***	***Feb***	***Mar***	***Apr***	***May***	***Jun***
No. of samples collected	3	3	2	3	3	3	3	3	3	3	3	3
No. of samples collected in which *E. coli* 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	3	6	8	11	14	17	20	23	26	29	32	35
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 refered 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).

Drinking water scheme: Roma

Year	*2014/15*											
Month	***Jul***	***Aug***	***Sep***	***Oct***	***Nov***	***Dec***	***Jan***	***Feb***	***Mar***	***Apr***	***May***	***Jun***
No. of samples collected	60	47	98	94	80	69	81	55	76	61	58	62
No. of samples collected in which *E. coli* is detected (i.e. a failure)	0	0	0	0	0	0	1	0	0	0	0	0
No. of samples collected in previous 12 month period	60	107	205	299	379	448	529	584	660	721	779	841
No. of failures for previous 12 month period	0	0	0	0	0	0	1	1	1	1	1	1
% of samples that comply	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	99.8%	99.8%	99.8%	99.9%	99.9%	99.9%
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 refered 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).

Drinking water scheme: Surat

Year	*2014/15*											
Month	***Jul***	***Aug***	***Sep***	***Oct***	***Nov***	***Dec***	***Jan***	***Feb***	***Mar***	***Apr***	***May***	***Jun***
No. of samples collected	5	5	5	5	5	5	8	5	5	5	6	5
No. of samples collected in which *E. coli* 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	10	15	20	25	30	38	43	48	53	59	64
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 refered 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).

Drinking water scheme: Wallumbilla

Year	*2014/15*											
Month	***Jul***	***Aug***	***Sep***	***Oct***	***Nov***	***Dec***	***Jan***	***Feb***	***Mar***	***Apr***	***May***	***Jun***
No. of samples collected	3	3	3	4	3	3	3	3	3	3	3	4
No. of samples collected in which *E. coli* 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	3	6	9	13	16	19	22	25	28	31	34	38
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 refered 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).

Drinking water scheme: Yuleba

Year	*2014/15*											
Month	***Jul***	***Aug***	***Sep***	***Oct***	***Nov***	***Dec***	***Jan***	***Feb***	***Mar***	***Apr***	***May***	***Jun***
No. of samples collected	4	4	4	5	4	4	4	4	4	4	4	4
No. of samples collected in which *E. coli* 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	4	8	12	17	21	25	29	33	37	41	45	49
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 refered 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

Table 3 – 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 Dec 2015	(If implementing these actions will take longer than anticipated, please provide detail, as it may affect the approved DWQMP)
DWQI-2012-02	*DWQMP*	*Plan review undertaken and existing plan extensively modified.*	*30/06/2014*	*Review Complete, New Plan Submitted*	*DWQMP Amendment submitted to Regulator Sep 2015 and awaiting approval. Expected Dec 2015.*
DWQI-2012-05	*Source Water*	*Standpipes installed in Roma, Injune, Wallumbilla & Mitchell to allow for 24/7 water extraction for emergency cartage to towns.*	*30/06/2014*	*Complete*	
DWQI-2012-06	*Treatment*	*Surat WTP upgrade complete*	*30/06/2014*	*Complete*	
DWQI-2012-08	*Reticulation*	*Generator installed at two pump stations (Roma & Muckadilla)*	*30/11/2014*	*Complete*	*Original project complete, as further sites are identified they will be budgeted accordingly.*
DWQI-2012-11	*Treatment*	*Chlorination disinfection and acid dosage systems installed and operational*	*31/12/2014*	*Complete*	
DWQI-2012-12	*Reticulation*	*Backflow prevention devices installed at high risk locations.*	*30/03/2014*	*Complete*	*Original project complete, if more locations are identified they will be budgeted accordingly.*