



AQWEST

DOH REPORT

MOU - DRINKING WATER QUALITY

REPORTING PERIOD 01 JULY 2016 TO 30 SEPTEMBER 2016

OCTOBER 2016

REPORT TEMPLATE VERSION: 2.0.3

Document Revision

Version #	Date Changed	Requested By	Changes
1.2.2	5/10/2012		*Radiological Units to be Corrected *Header to be repeated on tables on new pages *Add Section for Assumptions *Note any value that has a less than symbol to have Zero (0) value *Remove compliance % for items that do not have AWDG Limits *Remove Raw Water ADWG Guidelines *Include Max Value for ADWG Limits *5th Percentile to be removed *Report to include document history *Include Calculations in assumptions section
1.2.3	18/10/2012		*Added Micro Results
2.0.0	9/01/2013	K Woods	*Moved Report to Excel Template
2.0.1	10/01/2014	Water Quality Committee	*Added chlorine residual explanations
2.0.2	20/05/2015	Water Quality Committee	*Remove technical zero statement from assumptions
2.0.3	19/10/2016	B Labza	* Updated Assumptions and Explanations

Assumptions and Explanations

- 1) Field Assessable Tests (Chlorine Residual and pH) are undertaken by competent sampling staff from both Aqwest and City of Bunbury
- 2) As noted in ADWG 2004, 0.6mg/L is the odour threshold of chlorine residual for most people. In some instances it may be necessary to exceed the aesthetic guideline to maintain an effective disinfection residual throughout the system
- 3) Datasets presented and used for analysis in the report are from the Aqwest monitoring program which have been classed as assessable
- 4) Rounding has been undertaken for chlorine residual results to one decimal place to match ADWG, with values less than 5 rounded down and values equal or greater than 5 rounded up.

1 Introduction

1.1 Water Provider Information

Name: Aqwest
Address: 5 Mackinnon Way, Bunbury
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Company Email: aqwest@aqwest.com.au
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DOH Liaison Officer: Gary Hallsworth
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1.2 System Information

Aqwest operates one large interconnected system with multiple bore sites as raw water sources. Theoretical water supply "zones" of influence have been determined using network modelling, and the location of sample points has been selected to represent these theoretical water supply zones. Aqwest supplies potable water to a customer population base of approximately 35,000. The average daily system demand is 18 ML/day.

1.3 Performance Summary

Table 1 shows the overall performance of Aqwest against the 2004 ADWG for the period of 01 July 2016 to 30 September 2016.

Table 1: Aqwest Performance Summary Table

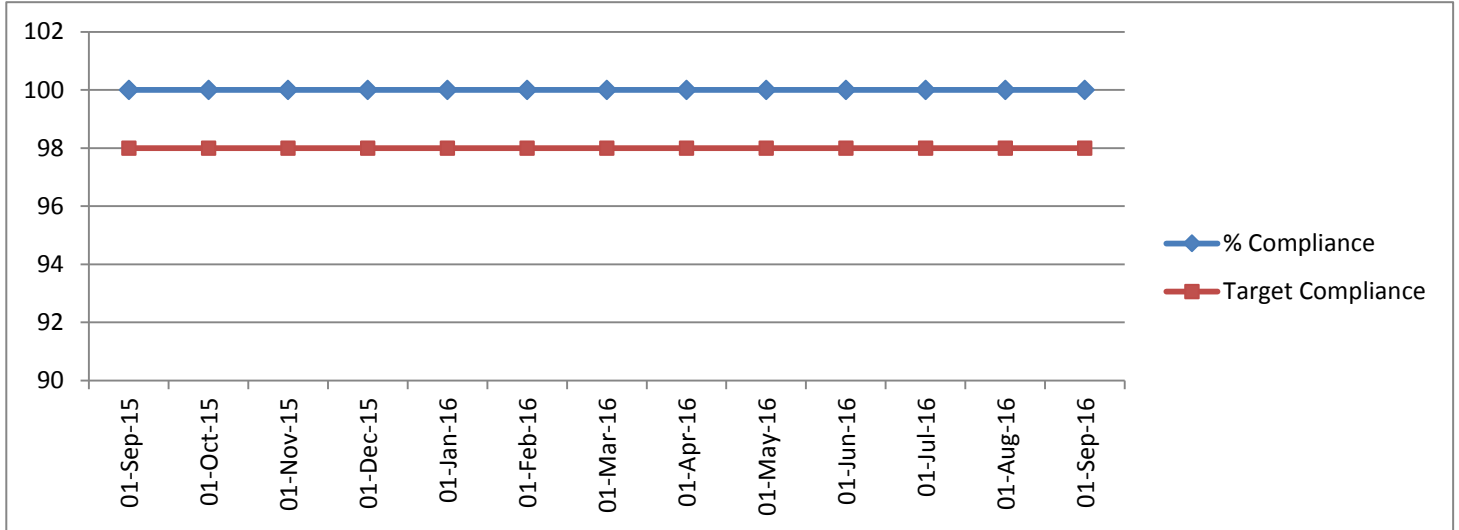
	Compliance From 01 July 2016 to 30 September 2016			% Compliance 12 Month Rolling Period
	Number of Zones	Number of Compliant Zones	% Compliance	
<i>Microbiological Quality</i>				
Escherichia coli	7	7	100.0	100.0
Naegleria	7	7	100.0	100.0
<i>Chemical Quality</i>				
Health Related	7	7	100.0	100.0
Non-Health Related	7	3	98.2	98.7

2 Microbiological

2.1 Microbiological Charts

The following charts graphically represent the microbiological information displayed in Table 1.

Graph 1: Rolling 12 Months Escherichia coli Compliance against the 2004 ADWG.



Graph 2: Rolling 12 Months Naegleria Compliance against the 2004 ADWG.

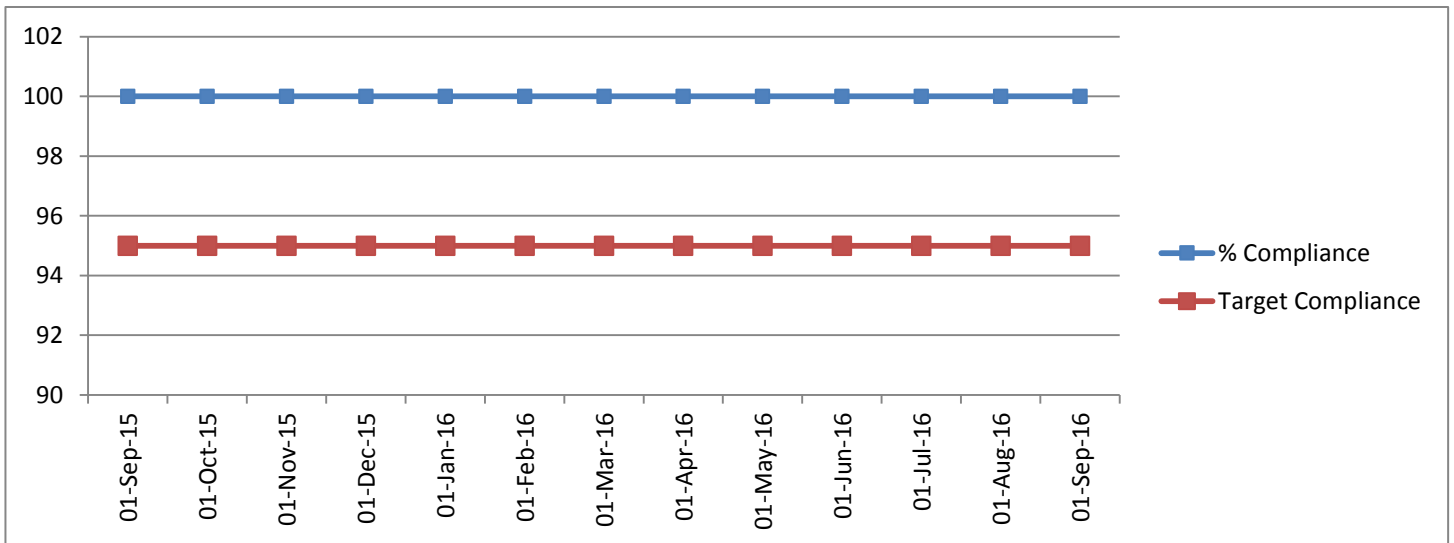


Table 2 lists those sample locations where non-compliant microbiological results were detected, and the remedial actions taken to rectify these non-compliances. An unpopulated table indicates that for the period of analysis, all results were compliant with the 2004 ADWG.

Table 2: Non-Compliant Microbiological Results and Remedial Action.

Sample Date	Sample Location	Parameter	Result	Units	Guideline	Comment

3 Health Related

Table 3 lists those sample locations where non-compliant health related results were detected, and the remedial actions taken to rectify these non-compliances. An unpopulated table indicates that for the period of analysis, all results were compliant with the 2004 ADWG.

Table 3: Non-Compliant Health Related Results and Remedial Action.

Sample Date	Sample Location	Parameter	Result	Units	Guideline	Comment

4 Non-Health Related (Aesthetic) Chemical

Table 4 lists those sample locations where non-compliant non-health related (Aesthetic) results were detected, and the remedial actions taken to rectify these non-compliances. An unpopulated table indicates that for the period of analysis, all results were compliant with the 2004 ADWG. This data is supplied for information only, as no remedial actions are required. However, it is important to note that the customer perception of water quality is heavily influenced by aesthetic concerns, and in an era of increasing public expectations of water suppliers, these aesthetic issues may need to be addressed in order to provide customer satisfaction.

Table 4: Non-Compliant Non-Health Related (Aesthetic) Chemical Results and Remedial Action.

Sample Date	Sample Location	Parameter	Result	Units	Guideline	Comment
4/07/2016	Wimbridge Rd	Chlorine	0.7	mg/L	0.6	Residual Chlorine levels raised throughout the network to 0.7mg/L from late May 2016 for Operational purposes.
4/07/2016	Keble Heights	Chlorine	0.8	mg/L	0.6	
4/07/2016	Nalbarra Dr	Chlorine	0.7	mg/L	0.6	
11/07/2016	Temple Road	Chlorine	0.7	mg/L	0.6	
11/07/2016	Skewes WTP	Chlorine	0.7	mg/L	0.6	
11/07/2016	Halsey Street	Chlorine	0.7	mg/L	0.6	
27/09/2016	Keble Heights	Chlorine	0.7	mg/L	0.6	For Operational Purposes

5 Radiological Related

Table 5 lists those sample locations where non-compliant Radiological results were detected, and the remedial actions taken to rectify these non-compliances. An unpopulated table indicates that for the period of analysis, all results were compliant with the 2004 ADWG. Note: Samples in this category are taken on a Biennial basis*

*Sample results from October 2015 are currently under review by AQWEST and the Department of Health. Once resolved these results will be published in the MoU report

Table 5: Non-Compliant Radiological Results and Remedial Action.

Sample Date	Sample Location	Parameter	Result	Units	Guideline	Comment

6 Planned Sampling Summary

Table 6 shows the number of samples that were planned for the reporting period, and the number of accessible samples already taken.

Table 6: Planned sampling regime and actual assessable samples taken.

	Number of Samples Planned to be taken	Number of samples actually taken	% of planned samples taken
Microbiological	165	165	100.0%
Physical Chemical	236	233	98.7%

Table 7: Location and reason for missed samples

Date	Location	Schedule	Reason
9/08/2016	Skewes North Bore	WBSAQ	Bore removed due to motor failure
9/08/2016	Hastie WTP	WTSAQ	WTP offline for Capital Maintenance
9/08/2016	Skewes WTP	WTSAQ	WTP offline due to bore failure
Total	3		