



# **AQWEST**

**DOH REPORT**

**MOU - DRINKING WATER QUALITY**

**REPORTING PERIOD 01 MARCH 2017 TO 30 JUNE 2017**

**JULY 2017**

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  
**Telephone:** +61 8 9780 9500  
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**Company Email:** aqwest@aqwest.com.au  
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**DOH Liaison Officer:** Gary Hallsworth  
**DOH Liaison Officer Email:** gary.hallsworth@aqwest.com.au

### **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 March 2017 to 30 June 2017.

**Table 1: Aqwest Performance Summary Table**

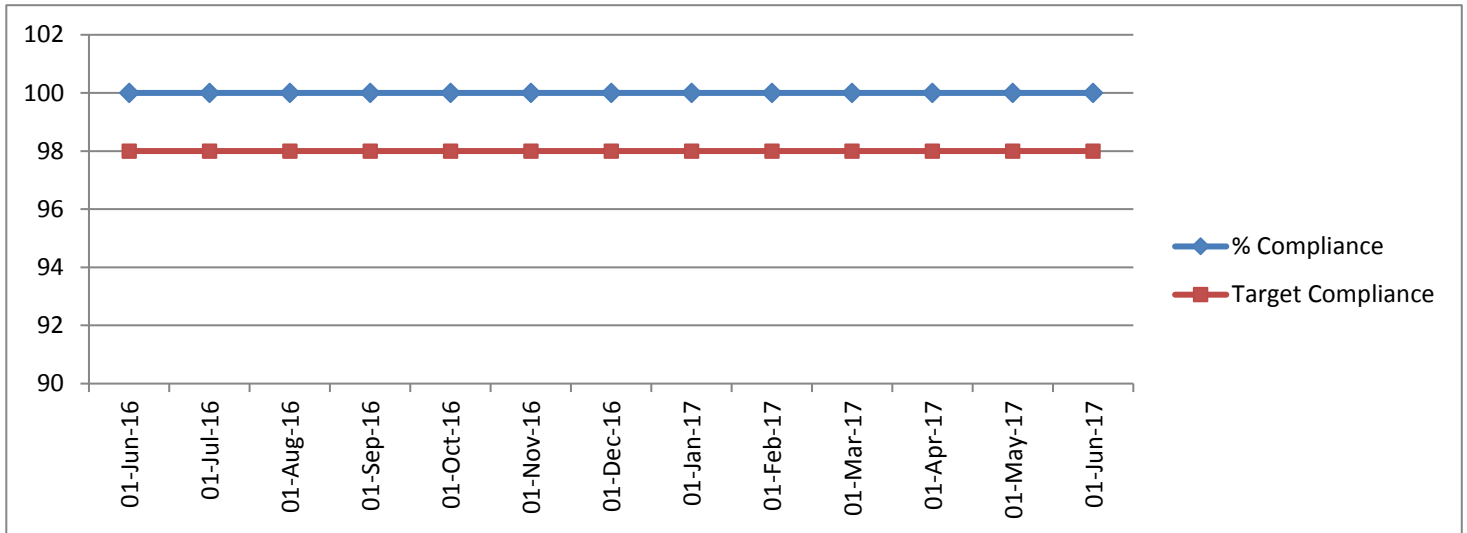
	<b>Compliance From 01 March 2017 to 30 June 2017</b>			<b>% Sample Compliance 12 Month Rolling Period</b>
	<b>Number of Zones</b>	<b>Number of Compliant Zones</b>	<b>% Compliant Samples</b>	
<b><i>Microbiological Quality</i></b>				
Escherichia coli	7	7	100	100
Naegleria	7	7	100	100
<b><i>Chemical Quality</i></b>				
Health Related	7	7	100	100
Non-Health Related	7	5	99.15	98.69

## 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.**

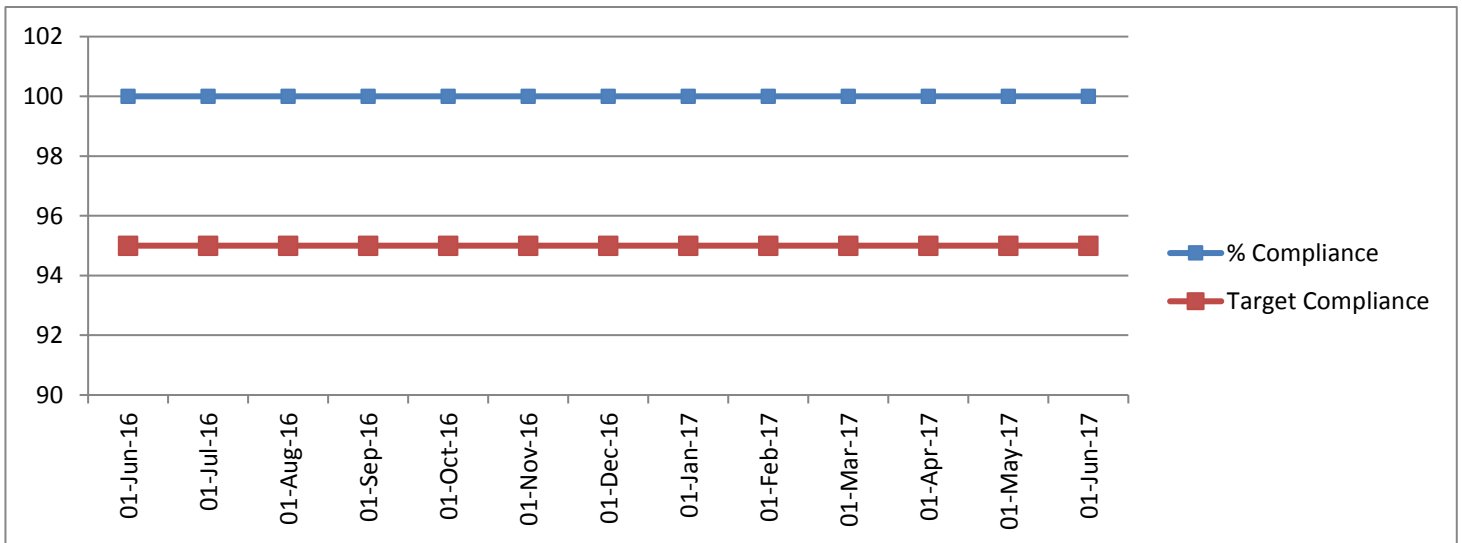


Table 2 lists those sample locations where non-compliant microbiological results were detected, and the remedial actions taken to rectify these non-compliances. An unpopulated table indicates that for the period of analysis, all results were compliant with the 2004 ADWG.

**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 if required. An unpopulated table indicates that for the period of analysis, all results were compliant with the 2004 ADWG.

Note: 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 improve customer satisfaction.

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

Sample Date	Sample Location	Parameter	Result	Units	Guideline	Comment
20/03/2017	Francis Street	Chlorine	0.7	mg/L	0.6	No action required. Result within target range
20/03/2017	Halsey Street	Chlorine	0.7	mg/L	0.6	
20/03/2017	Francis Street	pH	6.4	pH units	6.5-8.5	
8/06/2017	Cambridge St	Iron	0.42	mg/L	0.3	Due to works in area, sample point flushed and resampled, all OK
8/06/2017	Cambridge St	Turbidity	1.2	NTU	1	

### 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.

**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.**

	<b>Number of Samples Planned to be taken</b>	<b>Number of samples actually taken</b>	<b>% of planned samples taken</b>
Microbiological	163	163	100.0%
Physical Chemical	211	202	95.7%

**Table 7: Location and reason for missed samples**

<b>Date</b>	<b>Location</b>	<b>Schedule</b>	<b>Reason</b>
19/04/2017	Skewes South bore	WBSAQ	Offline moving towards monitoring bore only
19/04/2017	Hastie North bore	WBSAQ	Offline, Bores not used this Quarter
19/04/2017	Hastie South bore	WBSAQ	
19/04/2017	Tech 1 bore	WBSAQ	Offline, not used for Production
19/04/2017	Irwin East bore	WBSAQ	Offline at time of sampling
19/04/2017	Skewes North bore	WBSAQ	Offline at time of sampling
19/04/2017	Skewes WTP	WTSAQ	Offline at time of sampling
19/04/2017	Irwin WTP	WTSAQ	Offline at time of sampling
19/04/2017	Hastie WTP	WTSAQ	Offline, WTP not used this quarter
Total	9		