



# AQWEST

**DOH REPORT**

**MOU - DRINKING WATER QUALITY**

**REPORTING PERIOD 01 JANUARY 2018 TO 31 MARCH 2018**

**APRIL 2018**

REPORT TEMPLATE VERSION: 2.0.4

## Document Revision

| Version # | Date Changed | Requested By            | Changes  |
|-----------|--------------|-------------------------|--|
| 1.2.2     | 5/10/2012    |                         | *Radiological Units to be Corrected<br>*Header to be repeated on tables on new pages<br>*Add Section for Assumptions<br>*Note any value that has a less than symbol to have Zero (0) value<br>*Remove compliance % for items that do not have AWDG Limits<br>*Remove Raw Water ADWG Guidelines<br>*Include Max Value for ADWG Limits<br>*5th Percentile to be removed<br>*Report to include document history<br>*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   |
| 2.0.4     | 17/10/2017   | K Woods                 | *Updated 2004 ADWG to 2011 ADWG (as of 1st July 2017)<br>*Updated Number of Compliant Zones to Number of Compliant Samples   |

## 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 2011, 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

|                                   |                               |
|-----------------------------------|-------------------------------|
| <b>Name:</b>                      | Aqwest                        |
| <b>Address:</b>                   | 5 Mackinnon Way, Bunbury      |
| <b>Telephone:</b>                 | +61 8 9780 9500               |
| <b>Facsimile:</b>                 | +61 8 9780 9509               |
| <b>Company Email:</b>             | aqwest@aqwest.com.au          |
| <b>Chief Executive Officer:</b>   | Brad Bevis                    |
| <b>CEO E-Mail:</b>                | brad.bevis@aqwest.com.au      |
| <b>DOH Liaison Officer:</b>       | Gary Hallsworth               |
| <b>DOH Liaison Officer Email:</b> | gary.hallsworth@aqwest.com.au |

### 1.2 System Information

Aqwest supplies potable water to a customer population base of approximately 33,000 with an average system demand of 18ML/day. Aqwest supplies potable water via 6 water treatment plants, 4 reservoirs and 9 pump stations which all feed into one large interconnected zone.

### 1.3 Performance Summary

Table 1 shows the overall performance of Aqwest against the 2011 ADWG for the period of 01 January 2018 to 31 March 2018.

**Table 1: Aqwest Performance Summary Table**

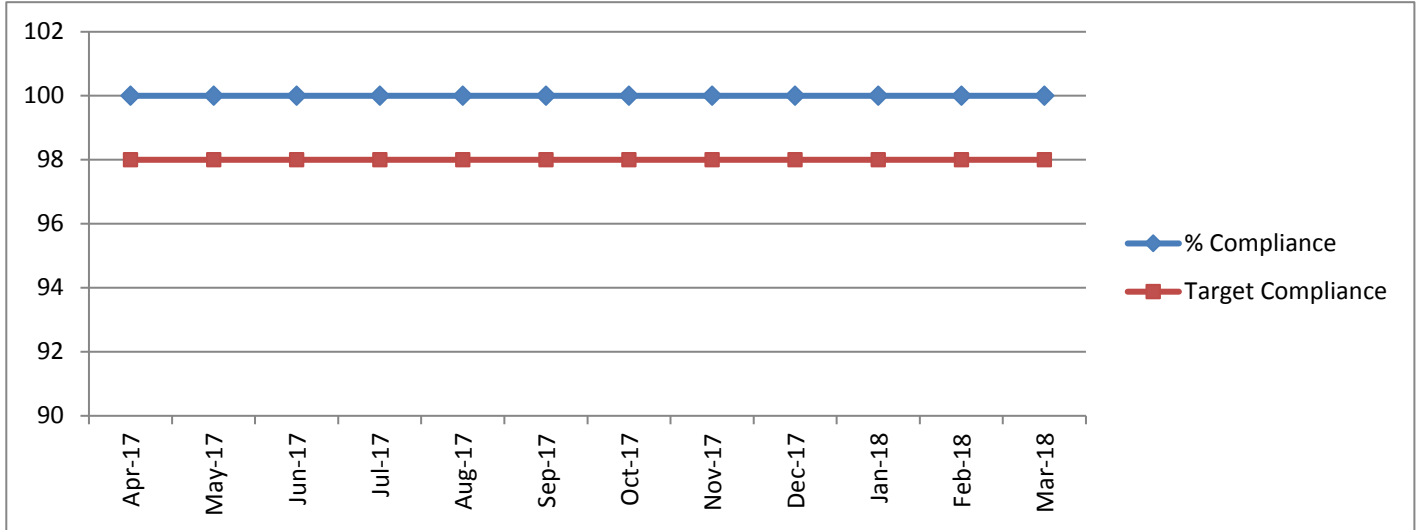
|                                       | <b>Compliance From<br/>01 January 2018 to 31 March 2018</b> |  |                                |  |
|---------------------------------------|---|--|--------------------------------|--|
|                                       | <b>Number of<br/>Samples</b>                                | <b>Number of<br/>Compliant<br/>Samples</b> | <b>% Compliant<br/>Samples</b> | <b>% Sample Compliance 12<br/>Month Rolling Period</b> |
| <b><i>Microbiological Quality</i></b> |   |  |                                |  |
| Escherichia coli                      | 132   | 132  | 100                            | 100  |
| Naegleria                             | 132   | 132  | 100                            | 100  |
| <b><i>Chemical Quality</i></b>        |   |  |                                |  |
| Health Related                        | 157   | 157  | 100                            | 100  |
| Non-Health Related                    | 157   | 157  | 100                            | 99.17  |

## 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 2011 ADWG.**



**Graph 2: Rolling 12 Months Naegleria Compliance against the 2011 ADWG.**

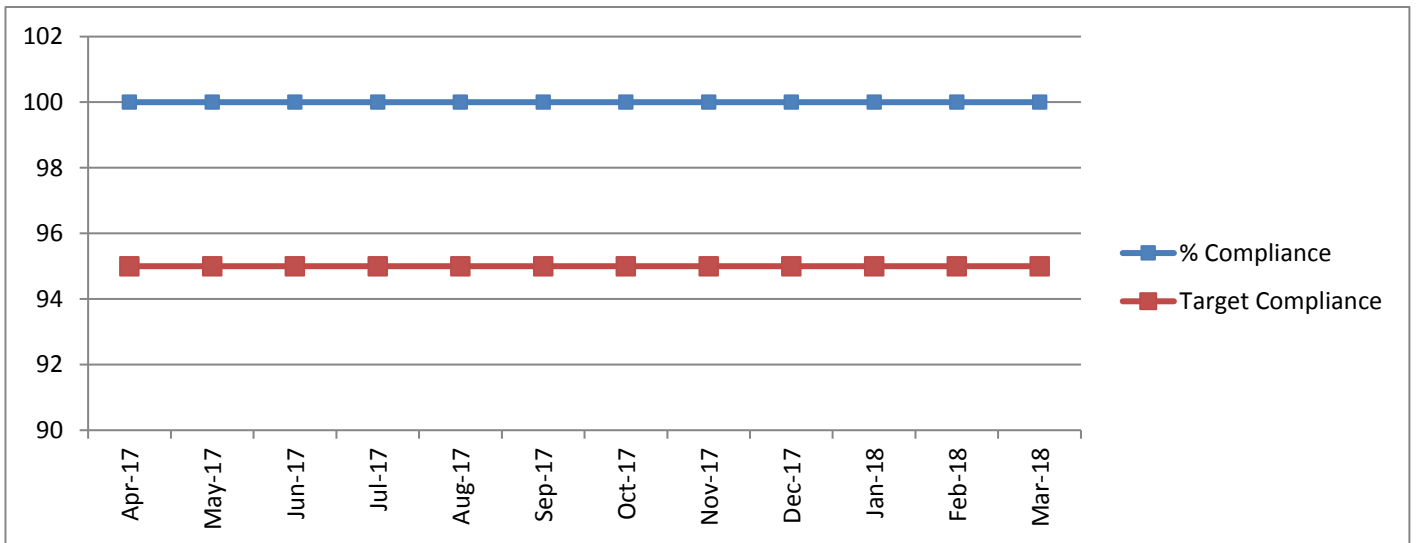


Table 2 lists those sample locations where non-compliant microbiological results were detected, and the remedial actions taken to rectify these non-compliances. An unpopulated table indicates that for the period of analysis, all results were compliant with the 2011 ADWG.

**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 2011 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 2011 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 |
|-------------|-----------------|-----------|--------|-------|-----------|---------|
|             |                 |           |        |       |           |         |

### 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 2011 ADWG.

Note: Latest Radiological testing completed January 2018

**Table 5: Non-Compliant Radiological Related Chemical 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   | 143                                   | 132                              | 92.3%                      |
| Physical Chemical | 169                                   | 157                              | 92.9%                      |

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

| Date       | Location          | Schedule | Reason  |
|------------|-------------------|----------|---|
| 20/02/2018 | Tech 1 Bore       | BQA      | Offline, not used for Production                                  |
| 1/01/2018  | Mangles Reservoir | RMA2     | Mangles Reservoir Offline for Project works until late March 2018 |
| 15/01/2018 | Mangles Reservoir | RMA4     |   |
| 22/01/2018 | Mangles Reservoir | RMA1     |   |
| 29/01/2018 | Mangles Reservoir | RMA2     |   |
| 5/02/2018  | Mangles Reservoir | RMA3     |   |
| 12/02/2018 | Mangles Reservoir | RMA4     |   |
| 19/02/2018 | Mangles Reservoir | RMA1     |   |
| 26/02/2018 | Mangles Reservoir | RMA2     |   |
| 5/03/2018  | Mangles Reservoir | RMA3     |   |
| 12/03/2018 | Mangles Reservoir | RMA4     |   |
| 19/03/2018 | Mangles Reservoir | RMA1     |   |
| Total      | 12                |          |   |