# Aqwest Market Research Report 2004 Customer Survey Prepared by SMR

**April 2004** 

# Aqwest Report Structure

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### 1.0 Executive Summary

This report provides a clear summary of results obtained for the annual Aqwest customer survey. The 2004 survey was once again completed by market research contractor. Strategic Marketing & Research (SMR).

The 2004 customer survey followed a very similar format both in content and process as the format set by SMR for the 2002 survey. This format involved taking a random sample of telephone numbers from a Telstra database. A sample of 2000 phone numbers was sourced by Data Analysis Australia, covering areas within the 6230 postcode. Of these 2000 phone numbers a total of 1755 were utilised to contact survey respondents.

The total response rate for the 2004 customer survey was 21.06% however as a result of the removal of invalid surveys the valid response rate was slightly lower at 19.98%. This result is lower than the 38.61% response rate for the 2003 customer survey but still shows a high degree of consistency. There is no clear reason why the response rate in 2004 was significantly lower than in previous years.

The rate of refusal increased quite significantly from 2003 to 2004 from 11.51% to 27.3%. The factors contributing to this may indicate a shift in the general market place's attitude towards telephone research, timing of the research, interviewer characteristics or attitude toward Aqwest, however no conclusions can be drawn without further research.

The number of respondents is up from 362 in 2003 to 369 in 2004, once again meeting the minimum sample size target, required to be 95% confident that the true population value is within +/- 5% of the sample estimate. It is felt that removal of incompleted surveys from the sample in 2004 to the point of a 350 sample size, ensures that the results remain accurate.

The 2004 survey was conducted with a team of five market researchers and three supervisors, with a minimum of one supervisor being present at all times. The surveys were conducted between Saturday 27th March and Friday 2nd April. The team worked between 9.00am and 5.00pm on the weekends and between 5.00pm and 8.00pm during the week, with a completion rate of approximately 4 surveys per interviewer per hour which is higher than the 2003 survey rate of 3 surveys per hour.

The 2004 survey form, like surveys of previous years also contained measures regarding the following Aqwest key performance indicators (KPI's);

- Overall satisfaction with Aqwest
- Overall satisfaction with tap water services
- Customer contact (no problem with service)
- No interruption to water service
- Water safe to drink
- Water supplies are of an acceptable quality
- · Aqwest charges fairly for its service
- Agwest informs the public about its water services
- · Aqwest is planning effectively for the future

These KPI measures were ordered in the same manner as 2003. The KPI's were reordered in 2003, following consultation with Aqwest, with the aim of securing an unbiased response from customers.

### I.I Methodology

The 2004 customer survey was conducted with the data analysis package, SPSS. This package enabled SMR's market research team to enter data directly into the on-screen survey, eliminating further data entry and recoding stages, therefore increasing the accuracy of all data secured.

This package also enables the survey to automatically skip questions that a respondent is ineligible to answer, once again eliminating room for error. In addition to these features, SPSS forwards all data directly into a database form that is ready for analysis. These quality assurance steps ensure a maximum accuracy is achieved and have been employed by SMR for both 2002, 2003 and 2004.

The 2004 customer survey included both open ended and multiple response questions. The inclusion of these questions ensures that the customer's response is not always limited, therefore providing a true representation of the customer's attitudes and perceptions.

All of the 350 surveys were conducted over the phone using the randomly sourced numbers within the postcode area of 6230. This method is consistent with the approach taken in the 2002 and 2003 customer survey and will ensure a consistent comparison. It also provides anonymity to the respondent, not identifying them as an Aqwest customer, therefore, often decreasing barriers to an honest response.

The phone calls undertaken were all coded as follows;

- I. No answer
- 2. Answering machine
- 3. Call back
- 4. Refusal
- 5. Completed
- 6. Unsuitable candidate
- 7. Disconnected
- 8. Engaged
- 9. Fax

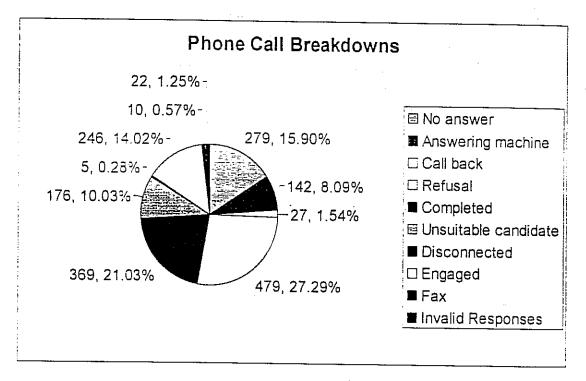
All surveys were assessed to determine validity. Any surveys not fully completed were deemed to be invalid and were removed from the sample.

Further analysis of the telephone survey response rates are as follows;

### 1.2 Phone Call Breakdowns

Of the 1755 phone calls that were made to potential survey participants in the Bunbury area, 279 calls were not answered, 142 calls were answered by machine only, 5 calls were made to disconnected lines, 246 were made to engaged lines and 10 resulted in facsimile dial tones, 27 of the answered calls requested that SMR call them back, 479 of the answered calls refused to completed the survey, 176 answered calls were determined to be unsuitable candidates to answer the survey and 369 answered calls agreed to answer the survey. 19 responses were deemed invalid as they were not fully completed and consequently removed from the sample.

This equates to a total response rate of 21.06% and a valid response rate of 19.98%.



### 1.3 Questionnaire

The 2003 survey was used as the basis for the 2004 survey with a number of minor alterations.

#### These included:

- If respondents indicated that they answered dissatisfied or very dissatisfied to any
  questions (apart from ratings of Telstra and Western Power) they were asked to give a
  reason why they gave that response.
- The exclusion of questions asking respondents how they would like to be contacted for maintenance scheduling information and how much notice they would like.
- The exclusion of questions regarding Aqwest's website.
- Respondents were not asked if they would like to participate in a focus group at a later date to further discuss services provided by Aqwest.

 When asked who respondents thought provided their water service. Aqwest and the Bunbury Water Board, were recorded as the same response.

All of these alterations were implemented following direct consultation with Aqwest.

### 1.4 Data analysis

All responses to the survey questions were analyzed using the SPSS statistical software package. The analysis of the data included frequency tables and the calculation of descriptive statistics (mean, mode, median and standard deviation) where rating scales have been employed.

All statistical tests were conducted at 95% level of confidence.

Considering the size of the sample group and the random means of securing the completed surveys, SMR has determined a 95% confidence with the error in calculating the average ratings no more than +/-5%.

This is within the industry standards and Aqwest's reporting requirements.

### 2.0 Qualifying question

|           |               | Base: All Respondents |
|-----------|---------------|-----------------------|
| Responses | Total 2004    | Total 2003            |
|           | 350<br>(100%) | 342<br>(100%)         |
| (I) Yes   | 350<br>(100%) | 342<br>(100%)         |
| (2) No    | 0<br>(0%)     | 0<br>(0%)             |
| Total     | 350<br>(100%) | 342<br>(100%)         |

The qualifying question used was the same as that used in 2003:

This qualifying question was used so that only rate payers were surveyed as it was determined in 2002 that information gathered from rate payers held greater significance in terms of decision making impact than that gathered from non-ratepayers, who were less informed about Aqwest and the services that it provides.

The above qualifying question allowed the interviewers to disengage the respondent if they were unsuitable to proceed.

It is essential that the questionnaire includes a qualifying question to ensure that all respondents are 'qualified' to answer the remainder of the questions. If respondents indicated a response other than Aqwest or the Bunbury Water Board they were to be informed that Aqwest is their water service provider.

|                                  | Base: All Respondents          |
|----------------------------------|--------------------------------|
| Responses                        | Total<br>2004<br>350<br>(100%) |
| (I) Aqwest / Bunbury Water Board | 350<br>(100%)                  |
| (2) Water Corporation            | 0<br>(0%)                      |
| (3) Other                        | 0<br>(0%)                      |
| Total                            | 350<br>(100%)                  |

This question demonstrates that 100% of respondents thought that either Aqwest or the Bunbury Water Board provided their water services.

<sup>&</sup>quot;Are you the person responsible for paying the water rates!"

### 3.0 Customer Satisfaction

## 3.1 Comparative service satisfaction

|                            |                         | ·                              | Base: All Respondents     |
|----------------------------|-------------------------|--------------------------------|---------------------------|
|                            | Total<br>2004<br>Aqwest | Total<br>2004<br>Western Power | Total<br>2004<br>Telstra  |
|                            | 350<br>(100%)           | 350<br>(100%)                  | 350<br>(100%)             |
| (1) Very Satisfied         | 146<br>(41.7%)          | 95<br>(27.1%)                  | 80<br>(22.9%)             |
| (2) Satisfied              | 136<br>(38.9%)          | 145<br>(41.4%)                 | (21.5%)<br>[2]<br>(34.6%) |
| (3) Neutral                | 52<br>(14.9%)           | 69 (19.7%)                     | 74 (21.1%)                |
| (4) Dissatisfied           | (3.1%)                  | 28 (8.0%)                      | 33<br>(9.4%)              |
| (5) Very Dissatisfied      | 4 (1.1%)                | (3.1%)                         | (6.0%)                    |
| (6) Dan't know             | (0.3%)                  | (0.6%)                         | 21<br>(6.0%)              |
| Mean (Don't know excluded) | 1.83                    | 2.18                           | 2.37                      |

A positive response of 80.6% was recorded for this answer.

Those 15 (4.2%) respondents that indicated that they were either dissatisfied or very dissatisfied in 2004 gave the following reasons:

- Aqwest's location makes bill paying inconvenient (2 respondents)
- Lack of credit card facilities (1 respondent)
- Too expensive (5 respondents)
- Water quality is poor (4 respondents)
- Have not resolved a customer problem (1 respondent)
- Water restrictions inconvenient (I respondent)
- Water pressure poor (1 respondent)
- Customer service poor (1 respondent)

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# 2003 Responses

|                      | Total<br>2003<br>Aqwest | Total<br>2003<br>Western Power | ase: All Respon<br>Total<br>2003<br>Telstra |
|----------------------|-------------------------|--------------------------------|---|
|                      | 362<br>(100%)           | 362<br>(100%)                  | 362<br>(100%)                               |
| (1) Very Satisfied   | (38.7%)                 | 96<br>(26.5%)                  | 74<br>(20.4%)                               |
| (2) Satisfied        | 159 -<br>(43.9%)        | 166<br>(45.9%)                 | 140<br>(38.7%)                              |
| (3) Neutral          | 47<br>(13%)             | 60 (16.6%)                     | 87<br>(24%)                                 |
| (4) Dissatisfied     | 12<br>(3.3%)            | 28<br>(7.7%)                   | 36<br>(9.9%)                                |
| 5) Very Dissatisfied | 4<br>(1.1%)             | 12 (3.3%)                      | 25<br>(6.9%)                                |
| Mean                 | 1.84                    | 2.15                           | 2.44  |

2002 Responses

|                       |            |               | Base: All Respondents |
|-----------------------|------------|---------------|-----------------------|
|                       | Total      | Total         | Total                 |
|                       | _2002      | 2002          | 2002                  |
|                       | Aqwest     | Western Power | Telstra               |
|                       | 342        | 342           | 342                   |
|                       | (100%)     | (100%)        | (100%)                |
| (1) Very Satisfied    | 197        | 175           | 118                   |
|                       | (57.6%)    | (51.2%)       | (34.5%0               |
| (2) Satisfied         | 99         | 128           | 99                    |
|                       | (28.9%)    | (37.4%)       | (28.9%)               |
| (3) Neutral           | 3 <i>7</i> | 28            | 58                    |
|                       | (10.8%)    | (8.2%)        | (17%)                 |
| (4) Dissatisfied      | 5          | 9 !           | 43                    |
|                       | (1.5%)     | (2.6%)        | (12.6%)               |
| (5) Very Dissatisfied | 4          | 2             | 24                    |
|                       | (1.2%)     | (0.6)         | (7%)                  |
| Mean                  | 1.6*       | 1.64*         | 2.29*                 |

(3) Neutral

(4) Dissatisfied

(5) Very Dissatisfied

Mean

|                    |         |               | Base: All Respondents  |
|--------------------|---------|---------------|--|
| ľ                  | Total   | Total         | Total  |
|                    | 2001    | 2001          | 2001   |
|                    | Aqwest  | Western Power | Telstra  |
|                    |         | **            | in the second se |
|                    | 303     | 303           | 303  |
|                    | (100%)  | (100%)        | (100%)   |
| (1) Very Satisfied | 76      | 175           | 118  |
|                    | (25.1%) | (51.2%)       | (34.5%0  |
| (2) Satisfied      | 202     | 128           | 99   |
|                    | (66.7%) | (37.4%)       | (28.9%)  |

18

(5.9%)

5

(1.7%)

(0.3%)

4.15\*

(37.4%)

28

(8.2%)

9

(2.6%)

Ž

(0.6)

(28.9%)

58

(17%)

43

(12.6%)

24

(7%)

4.12\* 3.85\* \*The means calculated in 2001 are calculated on an inverse scale. I.e. the 2002 scale was on a scale of I to 5 where I represents very satisfied and 5 represents very dissatisfied how would you rate the tap water service provided by Aqwest? The scale in previous years represented 1 as very dissatisfied and 5 as very satisfied. To align all of the means it is necessary to calculate how far they are from the end points and reverse them.

In 2004, Aqwest scored the 'highest' (most positive) comparative satisfaction mean of the three utilities, with a mean of 1.83 in comparison to Western Power with a mean of 2.18 and Telstra, with a mean of 2.27. Aqwest has skewed slightly closer to very satisfied this year compared to last year (0.01 point) as has Telstra (0.17 points), however Western Power has skewed in a negative direction compared to 2003 by 0.03 points.

The percentage of respondents who were very satisfied with Aqwest in 2003 was 38.7%; the percentage of respondents who were very satisfied with Aqwest in 2004 was 41.7%, an increase of 3%.

The percentage of respondents who were satisfied with Aqwest has declined from 43.9% in 2003 to 38.9% in 2004, a negative change of 5%.

The levels of dissatisfaction with Aqwest have remained almost exactly the same in 2004 as they were in 2003 with 3.3% of respondents dissatisfied and 1.1% of respondents very dissatisfied with Aqwest in 2004.

Aqwest's overall satisfaction (the sum of the very satisfied and satisfied responses for 2004 is 80.6% or 282 respondents. In comparison the overall satisfaction for 2003 was 82.6%.

Western Power experienced a significant fall in overall satisfaction between 2003 and 2004 with its overall satisfaction declining by 16.1% to 68.5%. Telstra experienced a 2.4% increase in satisfaction to an overall satisfaction level of 57.5%.

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## 3.2 Tap water satisfaction

| Q23. How sa           | 223. How satisfied are you with the tap water service provided by Aqwest? |         |         |         |         |         |              |          |
|-----------------------|---|---------|---------|---------|---------|---------|--------------|----------|
|                       |   |         |         |         |         |         | ase: All Res | pondents |
| Number o              | f responses   | Total   | Total   | Total   | Total   | Total   | Total        | Total    |
|                       |   | 2004    | 2003    | 2002    | 2001    | 2000    | 1999         | 1998     |
|                       |   | 350     | 362     | 342     | 303     | 226     | 307          | 301      |
|                       |   | (100%)  | (100%)  | (100%)  | (100%)  | (100%)  | (100%)       | (100%)   |
| Q.,=!!                | 1   |         |         |         |         |         |              |          |
| Overall               | Very  | 125     | 149     | 173     | 95      | 47      | 33           | 97       |
| Satisfied             | Satisfied   | (35.7%) | (41.2%) | (50.6%) | (31.4%) | (20.8%) | (10.7%)      | (32.2%)  |
| N=285                 | Satisfied   | 160     | 148     | 112     | 170     | 148     | 242          | 158      |
| 81.4%                 |   | (45.7%) | (40.9%) | (32.7%) | (56.1%) | (65.5%) | (78.8%)      | (52.5%)  |
| Neither Satisfied nor |   | 53      | 52      | 37      | 23      | 17      | 7            | 19       |
| Dissa                 |   | (15.1%) | (14.4%) | (10.8%) | (7.6%)  | (7.5%)  | (2.3%)       | (6.3%)   |
| Overall               | Dissatisfied  | 9       | 10      | 13      | 12      | 13      | 22           | 19       |
| Dissatisfied          |   | (2.6%)  | (2.8%)  | (3.8%)  | (4%)    | (5.8%)  | (7.2%)       | (6.3%)   |
| N=12                  | Very  | 3,      | 3       | 7       | 2       |         |              |          |
| 3.5%                  | Dissatisfied  | (0.9%)  | (0.8%)  | (2%)    | (0.7%)  | (0.4%)  | (0.3%)       | (1.0%)   |
| Mean (aver            | age rating)   | 1.87    | 1.81    | 1.74    | 4. 4*   | 4.00*   | 3.93*        | 4.10*    |

<sup>\*</sup>The means calculated in previous years are calculated on an inverse scale. I.e. the 2002 scale was on a scale of 1 to 5 where 1 represents very satisfied and 5 represents very dissatisfied how would you rate the tap water service provided by Aqwest? The scale in previous years represented 1 as very dissatisfied and 5 as very satisfied. To align all of the means it is necessary to calculate how far they are from the end points and reverse them.

Overall satisfaction regarding the tap water service provided by Aqwest has also experienced a minor fall according to the 2003 customer survey results. Overall satisfaction has fallen from 82.1% in 2003 to 81.4% in 2004.

Aqwest's KPI regarding this question indicates a target of 85% satisfaction level or higher. Therefore the utility has not achieved this standard for the third consecutive year.

Overall dissatisfaction with the tap water services provided by Aqwest has also experienced a slight drop, falling from 3.6% in 2003 to 3.5% in 2004. The percentage of respondents who are remaining neutral has risen from 14.4% in 2003 to 15.1% in 2004.

100% of respondents that indicated that they were dissatisfied or very dissatisfied gave reasons that related to the bad taste, smell and poor quality of the water. They indicated that the chlorine or chemical content of the water contributed to the poor quality.

### 4.0 Informing the Public

Q28. B. Aqwest does a good job of informing the public about its services? Please indicate your level of agreement with this statement where I equals strongly agree and 5 equals strongly disagree.

|              | T 8                |         |         |         |         | Base: All re | espondents |
|--------------|--------------------|---------|---------|---------|---------|--------------|------------|
|              | Responses          | Total   | Total   | Total   | Total   | Total        | Total      |
|              |                    | 2004    | 2003    | 2002    | 2001    | 2000         | 1999       |
|              |                    |         | !       |         |         |              |            |
| 1            |                    | 350     | 362     | 342     | 303     | 226          | 307        |
|              |                    | (100%)  | (100%)  | (100%)  | (100%)  | (100%)       | (100%)     |
| Overall      | (1)                | 118     | 102     | 156     | 47      | 31           | N/A        |
| Agreement    | Strongly           | (33.7%) | (28.2%) | (45.6%) | (15.5%) | (13.7%)      |            |
| N=277        | Agree              |         |         |         | . ,     | , ,          |            |
| 79.14%       | (2) Agree          | 159     | 154     | 105     | 162     | 113          | 248        |
|              |                    | (45.4%) | (42.5%) | (30.7%) | (53.5%) | (50.0%)      | (80.8%)    |
| 1            | (3) Neutral        | 46      | 86      | 61      | 26      | 32           | N/A        |
|              |                    | (13.1%) | (23.8%) | (17.8%) | (8.6%)  | (14.2%)      |            |
| Overall      | (4)                | 12      | 18      | 16      | 13      | 20           | 14         |
| Disagreement | Disagree           | (3.4%)  | (5.0%)  | (4.7%)  | (4.3%)  | (8.8%)       | (4.6%)     |
| N=16         |                    |         |         | ,       | , ,     | , ,          | (/         |
| 4.57%        | (5)                | 4 .     | 2       | 4       |         | 2            | N/A        |
|              | Strongly           | (1.1%)  | (0.6%)  | (1.2%)  | (0.3%)  | (0.9%)       |            |
| ·            | Disagree           |         |         | , ,     | `       | , , ,        |            |
|              | Don't              | 11      | N/A     | N/A     | N/A     | N/A          | N/A        |
|              | k⊓ow <del>**</del> | (3.1%)  |         |         |         |              | , ,,,,     |
|              | Mean               | 1.89    | 2.07    | 1.85    | 2.03*   | 2.24*        | N/A        |

<sup>\*</sup>The means calculated in previous years are calculated on an inverse scale. I.e. the 2002 scale was on a scale of 1 to 5 where 1 represents very satisfied and 5 represents very dissatisfied how would you rate the tap water service provided by Aqwest? The scale in previous years represented 1 as very dissatisfied and 5 as very satisfied. To align all of the means it is necessary to calculate how far they are from the end points and reverse them.

\*\*2004 was the first year where there was a 'Don't know' option added to this question. This was added as it was thought that a large component of neutral responses from previous years may have been selected as an alternative to don't know and it was felt that in 2004 it was necessary to test the distinction. The mean response for 2004 is calculated excluding the don't know responses.

In 2004 there was a significant fall in neutral responses down from 23.8% in 2003 to 13.1% in 2004. Some of this decline was offset by the don't know option which accounted for 3.1% of responses. The combined don't know and neutral responses for 2004 was 16.2%.

This KPI measure has also experienced a significant increase in overall agreement in 2004, from 70.72% in 2003 to 79.1% in 2004, however this result is still below the KPI target of 85% or greater.

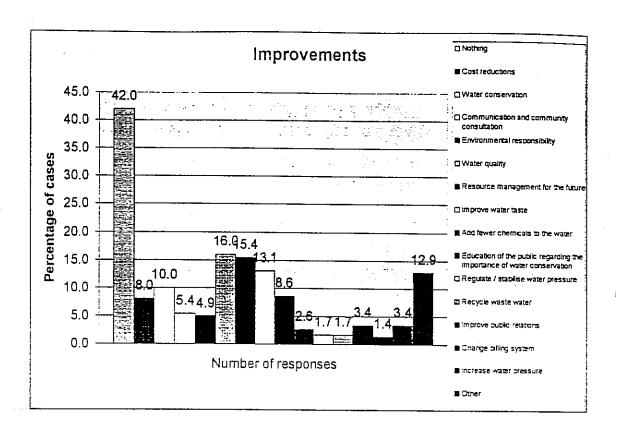
This increase is reflected in the mean of 1.89, a fall from 2.07 in 2003, indicating a greater skew towards the satisfied end of the scale.

There has been a fall of 1.1% in the overall disagreement with this statement from 2003 to 2004. The 15 respondents that gave a response of dissatisfied or very dissatisfied gave reasons that fell into the following categories:

- There are too many water restrictions (4 respondents)
- Public is not provided with sufficient information (3 respondents)
- More future planning and conservation is required (4 respondents)
- Alternative solutions are required (3 respondents)
- Disagree with supplying the Perth market with locally derived water (1 respondent)

# 5.0 Improvements

| Q29. What are the mos  | F = , === 1,     | Multiple (Multiple | e Response                | in improve<br>Possible) | OH                       |                |                         |
|--|------------------|--------------------|---------------------------|-------------------------|--------------------------|----------------|-------------------------|
|  |                  | (* **Z**Z**P**     | . response                | i ossibie)              |                          | Base: A        | VI respondent           |
| Responses  | Total<br>2004    | Total<br>2003      | Total<br>2002             | Total<br>2001           | Total<br>2000            | Total<br>1999  | Total<br>1998           |
|  | 350<br>(100%)    | 362<br>(100%)      | 342<br>(100%)             | 303<br>(100%)           | 226<br>(100%)            | 307<br>(100%)  | 301<br>(100%)           |
| (1) Nothing  | 147<br>(42.0%)   | 142<br>(39.2%)     | 158<br>(46.2%)            | 126 (41.6%)             | 97                       | 147            | 102                     |
| (2) Cost reductions for customers  | 28<br>(8.0%)     | 29<br>(8.0%)       | 36<br>(10.5)              | 32 (10.6%)              | (42.9%)<br>54<br>(23.9%) | (47.9%)        | (33.9%)                 |
| (3) Communication and community consultation                               | 19<br>(5.4%)     | 29<br>(8.0%)       | (4.4%)                    | N/A                     | N/A                      | (11.1%)<br>N/A | (8.3%)<br>N/A           |
| (4) Environmental<br>Responsibility  | 17<br>(4.9%)     | (3.0%)             | 15<br>(4.4%)              | 2 (0.7%)                | 34<br>(15%)              | 29<br>(9.4%)   | 2 (0.7%)                |
| (5) Resource<br>Management   | 54<br>(15.4%)    | 39<br>(10.8%)      | 28<br>(8.2%)              | N/A                     | N/A                      | N/A            | N/A                     |
| (6) Water<br>Conservation  | 35<br>(10.0%)    | 28<br>(7.7%)       | 24<br>(7.0%)              | 3 (1%)                  | 40<br>(17.7%)            | 33 (10.7%)     | 8<br>(2.7%)             |
| (7) Education of the public regarding the importance of water conservation | 9<br>(2.6%)      | 18<br>(5.0%)       | 16<br>(4.7%)              | 5<br>(1.7%)             | 40<br>(17.7%)            | 43<br>(14%)    | 8<br>(2.7%)             |
| (8) Water Quality  | 56<br>(16.0%)    | 69<br>(19.1%)      | 6 <del>4</del><br>(18.7%) | 50<br>(16.5%)           | 68<br>30.1%)             | 61 (19.9%)     | 42                      |
| (9) Improve Water<br>Taste   | 46<br>(13.1%)    | 55<br>(15.2%)      | 46<br>(13.4%)             | 70 (23.1%)              | 69<br>(30.5%)            | 69 (22.5%)     | (14%)                   |
| (10) Add Fewer<br>Chemicals to the<br>Water                                | 30<br>(8.6%)     | 27<br>(7.5%)       | 25<br>(7.3%)              | (6.3%)                  | 43 (19%)                 | 48 (15.6%)     | (8.6%)<br>5<br>(1.7%)   |
| (11) Regulate/ Stabilize Water Pressure                                    | 6<br>(1.7%)      | 2 (0.6%)           | 5<br>(1.5%)               | 3<br>(1%)               | 22<br>(9.7%)             | 19<br>(6.2%)   | 0<br>(0%)               |
| (12) Increase Water<br>Pressure<br>(13) Recycle Waste                      | (3.4%)           | 24<br>(6.6%)       | 9<br>(2.6%)               | 5<br>(1.7%)             | 18<br>(8%)               | (4.6%)         | 7<br>(2.3%)             |
| Water (14) Change Billing  | 6<br>(1.7%)<br>5 | 7 (1.9%)           | 4<br>(1.2%)               | 4 (1.3%)                | 39<br>(17.3%)            | 27<br>(8.8%)   | 3<br>(1%)               |
| System (15) Improve Public   | (1.4%)           | (3.9%)             | (3.8%)                    | 12<br>(4%)              | (6.2%)                   | 33<br>(10.7%)  | 12<br>( <del>4</del> %) |
| Relations (16) Other   | (3.4%)           | (5.2%)             | (3.5%)                    | 3 (1%)                  | (8%)                     | 22<br>(7.2%)   | 17<br>(5.6%)            |
| (10) Outer   | (12.9%)          | 26<br>(7.2%)       | 10<br>(2.9%)              | N/A                     | N/A                      | N/A            | N/A                     |



This was an unprompted, multiple response question, enabling the respondents to choose more than one response. The above bar chart demonstrates the percentage of respondents that chose each option.

There was an 2.8% increase in respondents who indicated that Aqwest did not need to make improvements with 42.0% recorded in 2004.

The following areas have experienced decreased percentages of respondents indicating areas of improvement. Most of the percentage decreases are minor: The percentage changes are shown in brackets following each response.

- Communication and community consultation (2.6%)
- Education of the public regarding the importance of water conservation (2.4%)
- Water quality (2.9%)
- Improve water taste (2.1%)
- Increase water pressure (3.2%)
- Recycle waste water (0.2%)
- Change billing system (2.5%)
- Improve public relations (1.8%)

The following areas have experienced increased percentages of respondents indicating areas of improvement. The percentage changes are shown in brackets following each response.

- Environmental responsibility (1.9%)
- Resource management (4.6%)
- Water conservation (2.3%)
- Add fewer chemicals to the water (1.1%)
- Regulate / stabilise water pressure (1.1%)
- Other (5.7%) these were too varied to note, please see Appendix 1

The following areas experienced no change in response from 2003 to 2004:

Cost reductions for consumers

10

### 6.0 Customer contact

|                                | ,       |         |         |         |           | Base: All Re | sponden: |
|--------------------------------|---------|---------|---------|---------|-----------|--------------|----------|
| Responses                      | Total   | Total   | Total   | Total   | Total     | Total        | Tota     |
|                                | 2004    | 2003    | 2002    | 2001    | 2000      | 1999         | 1998     |
|                                | 350     | 362     | 342     | 303     | 226       | 307          | 301      |
|                                | (100%)  | (100%)  | (100%)  | (100%)  | (100%)    | (100%)       | (100%    |
| (I) Yes                        | 54      | 51      | 41      | 43      | 22        | 21           | 45       |
|                                | (15.4%) | (14.1%) | (12%)   | (14.2%) | (9.7%)    | (6.8%)       | (15%)    |
| (2) No                         | 294     | 310     | 300     | 259     | 204       | 286          | 252      |
|                                | (84.0%) | (85.6%) | (87.7%) | (85.5%) | (90.3%)   | (93.2%)      | (83.7%   |
| (3) Can't<br>Say/Don't<br>know | (0.6%)  | (0.3%)  | (0.3%)  | (0.3%)  | 0<br>(0%) | (0%)         | (1.3%    |

There has been a rise of 1.3 % of people needing to contact Aqwest for reasons other than payment of rates; the incidence has risen from 14.1% in 2003 to 15.4% in 2004.

342

(100%)

303

(100%)

226

(100%)

307

(100%)

301

(100%)

#### 6.1 Method of customer contact

Total

350

(100%)

362

(100%)

| Q5. By which method                       | /s did you i | make conta | ict with Aq | west?   |         |         |         |  |  |  |  |
|---|--------------|------------|-------------|---------|---------|---------|---------|--|--|--|--|
| (Multiple Response possible)              |              |            |             |         |         |         |         |  |  |  |  |
| Base: Respondents who answered yes to Q4. |              |            |             |         |         |         |         |  |  |  |  |
| Responses                                 | Total        | Total      | Total       | Total   | Total   | Total   | Total   |  |  |  |  |
|   | 2004         | 2003       | 2002        | 2001    | 2000    | 1999    | 1998    |  |  |  |  |
|   |              |            |             |         |         |         |         |  |  |  |  |
|   | 54           | 51         | 41          | 43      | 22      | 21      | 45      |  |  |  |  |
|   | (100%)       | (100%)     | (100%)      | (100%)  | (100%)  | (100%)  | (100%)  |  |  |  |  |
| in Person                                 | 5            | 11         | 9           | 12      | 6       | 5       | 10      |  |  |  |  |
|   | (9.3%)       | (21.5%)    | (21.2%)     | (27.9%) | (27.3%) | (23.8%) | (21.7%) |  |  |  |  |
| By Mail                                   | 0            | 0          | 0           | 2       | 0       | 0       | 0       |  |  |  |  |
|   | (0%)         | (0%)       | (0%)        | (4.7%)  | (0%)    | (0%)    | (0%)    |  |  |  |  |
| By telephone during                       | 43           | 36         | 28          | 27      | 15      |         | 34      |  |  |  |  |
| office hours                              | (79.6%)      | (70.5%)    | (68.3%)     | (62.8%) | (68.2%) | (52.4%) | (73.9%) |  |  |  |  |
| By telephone                              | 11           | 7          | 9           | 2       | 3       | 3       |         |  |  |  |  |
| outside of office                         | (20.4%)      | (13.7%)    | (21.2%)     | (4.7%)  | (13.6%) | (14.3%) | (2.2%)  |  |  |  |  |
| hours                                     |              |            |             |         |         | ļ       |         |  |  |  |  |
| Don't remember                            | 0            |            | 0           | N/A     | N/A     | N/A     | N/A     |  |  |  |  |
|   | (0.0%)       | (1.9%)     | (0%)        |         |         |         |         |  |  |  |  |
| By Internet/ email                        | 0            | 0          | 0           | N/A     | N/A     | N/A     | N/A     |  |  |  |  |
|   | (0%)         | (0%)       | (0%)        |         |         |         |         |  |  |  |  |
| Total                                     | 54           | 51         | 41          | 43      | 22      | 21      | 45      |  |  |  |  |
|   | (100%)       | (100%)     | (100%)      | (100%)  | (100%)  | (100%)  | (100%)  |  |  |  |  |

As with results from previous years, the dominant method of contact was via telephone during office hours. All other modes of contact utilised were lower than in previous years.

# 6.2 Purpose of Contact

| Q6. What were your reasons for contacting Aqwest! |                              |                  |             |               |                |            |           |  |  |  |  |
|---|------------------------------|------------------|-------------|---------------|----------------|------------|-----------|--|--|--|--|
|   | (Multiple Response possible) |                  |             |               |                |            |           |  |  |  |  |
|   |                              | (, , , , , , , , |             |               | idents who     | answered ; | vac to Od |  |  |  |  |
| Responses   | Total                        | Total            | Total       | Total         | Total          | Total      | Total     |  |  |  |  |
|   | 2004                         | 2003             | 2002        | 2001          | 2000           | 1999       | 1998      |  |  |  |  |
|   |                              |                  |             |               |                |            | .,,,,     |  |  |  |  |
|   | 54                           | 5!               | 41          | 43            | 22             | 21         | 45        |  |  |  |  |
|   | (100%)                       | (100%)           | (100%)      | (100%)        | (100%)         | (100%)     | (100%)    |  |  |  |  |
| Rates Query                                       | 0                            | 2                | 3           | 6             | 3              | 2          | 6         |  |  |  |  |
|   | (0.0%)                       | (3.9%)           | (7.3%)      | (14%)         | (13.6%)        | (9.5%)     | (13.3%)   |  |  |  |  |
| High Water  | 0                            | 0                | 2           | 0             | 2              | 1          | 2         |  |  |  |  |
| Consumption Bill                                  | (0.0%)                       | (0%)             | (4.8%)      | (0%)          | (9.1%)         | (4.5%)     | (4.4%)    |  |  |  |  |
| Water   | 4                            | 4                | 3           | 5             | 5              | .0         | 6         |  |  |  |  |
| Consumption                                       | (7.4%)                       | (7.8%)           | (7.3%)      | (11.6%)       | (22.7%)        | (0%)       | (13.3%)   |  |  |  |  |
| Query   | <u> </u>                     |                  |             |               |                |            |           |  |  |  |  |
| Water Quality                                     | 9                            | 5                | 8           | 8             | 5              | 3          | 3         |  |  |  |  |
| N.L. SAZ  | (16.7%)                      | (9.8%)           | (19.5%)     | (18.6%)       | (22.7%)        | (14.3%)    | (6.7%)    |  |  |  |  |
| New Water   | (5 (20)                      | 4                | 3           | 5             | 2              | !          | 0         |  |  |  |  |
| Services  | (5.5%)                       | (7.8%)           | (7.3%)      | (11.6%)       | (9.1%)         | (4.8%)     | (0%)      |  |  |  |  |
| Leaking Pipes                                     | (22.28)                      | 16               | 9           | 5             | 0              | 3          | 2         |  |  |  |  |
| Pensioner Rebate                                  | (22.2%)                      | (31.3%)          | (21.9%)     | (11.6%)       | (0%)           | (14.3%)    | (4.4%)    |  |  |  |  |
| r engioner Repare                                 | (0.0%)                       | (7.00/)          | (2.40()     | 3             | ( . 500        |            | 0 :       |  |  |  |  |
| Stopcock Problem                                  |                              | (3.9%)           | (2.4%)      | (7%)          | (4.5%)         | (4.8%)     | (0%)      |  |  |  |  |
| Stopcock Problem                                  | /7 19/\                      | 6                | 0           | 0             |                |            | 0         |  |  |  |  |
| Location of Pipes                                 | (7.4%)                       | (11.7%)          | (0%)        | (0%)          | (4.5%)         | (4.8%)     | (0%)      |  |  |  |  |
| Location of ripes                                 | (0.0%)                       | / L 09/\         | (0.40()     | (2, 204)      | (4.750)        | (          | 4         |  |  |  |  |
| Low Water   | (0.5.8)                      | (1.9%)           | (2.4%)<br>2 | (2.3%)        | (4.5%)         | (4.8%)     | (8.9%)    |  |  |  |  |
| Pressure  | (1.9%)                       | (5.8%)           | -           | (4.79/)       | / 4 E 2/\      | (4.000)    | 3         |  |  |  |  |
| Water Supply                                      | 3                            | (3.0.6)          | (4.8%)      | (4.7%)        | (4.5%)         | (4.8%)     | (5.7%)    |  |  |  |  |
| Interruption                                      | (5.6%)                       | (1.9%)           | (2.4%)      | 2 (4.79)      | (4 E2/)        | (14.7%)    | 2         |  |  |  |  |
| Can't Say   | 0.5.5)                       | 0                | 0           | (4.7%)<br>N/A | (4.5%)         | (14.3%)    | (4.4%)    |  |  |  |  |
|   | (0.0%)                       | (0%)             | (0%)        | AWI           | N/A            | N/A        | N/A       |  |  |  |  |
| Broken Meter                                      | (0.0%)                       | 8                | 14          | 7             | A              |            |           |  |  |  |  |
|   | (31.5%)                      | (15.6%)          | (34.1%)     | (16.3%)       | 4.<br>(10.7%)  | (22.09)    | (22.28)   |  |  |  |  |
| Other   | 5                            | 5                | 3 3         | N/A           | (18.2%)<br>N/A | (23.8%)    | (22.2%)   |  |  |  |  |
| = = 101   | (9.3%)                       | (9.8%)           | (7.3%)      | 14/W          | 19/74          | N/A        | N/A       |  |  |  |  |
|   | (7-2,0)                      | (7.076)          | (0,5.1)     |               |                |            |           |  |  |  |  |

This is an unprompted multiple response question, allowing for respondents to choose more than one response.

The 2004 data has seen a fall in enquiries from the 2003 data for the following areas:

- Rates queries down from 3.9% in 2003 to 0% in 2004.
- Water consumption queries down from 7.8% in 2003 to 7.4% in 2004.

- New water services down from 7.8% in 2003 to 5.6% in 2004.
- Leaking pipes down from 31.3% in 2003 to 22.2% in 2004.
- Stopcock problem down from 11.7% in 2003 to 7.4% in 2004
- Location of pipes down from 1.9% in 2003 to 0% in 2004
- Low water pressure down from 5.8% in 2003 to 1.9% in 2004
- Other down from 9.8% in 2003 to 9.3% in 2004

The 2004 data has seen rises in contact due to the following reasons:

- Water quality up from 9.8% in 2003 to 16.7% in 2004
- Water supply interruption up from 1.9% in 2003 to 5.6% in 2004
- Broken meter queries up from 15.6% in 2003 to 31.5% in 2004.

#### 6.3 Customer service issues

| Q7. Did you experie | ence any pro  | blems with    |               |               | dents who     | answered      | res to O4     |
|---------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Responses           | Total<br>2004 | Total<br>2003 | Total<br>2002 | Total<br>2001 | Total<br>2000 | Total<br>1999 | Total<br>1998 |
|                     | 54<br>(100%)  | 51<br>(100%)  | 41 (100%)     | 43<br>(100%)  | 22<br>(100%)  | 21 (100%)     | 45<br>(100%)  |
| (I) Yes             | 4<br>(7.4%)   | 7<br>(13.7%)  | 5<br>(12.2%)  | (9.3%)        | 5<br>(22.7%)  | 3<br>(14.3%)  | (6.7%)        |
| (2) No              | 50<br>(92.6%) | 42<br>(82.3%) | 36<br>(87.8%) | 37<br>(86%)   | (77.3%)       | 17<br>(80.9%) | 41 (91.1%)    |
| (3) Can't Say       | (0.0%)        | 3<br>(5.8%)   | (0%)          | 2<br>(4.7%)   | 0<br>(0%)     | (4.8%)        | (2.2%)        |
| Total               | 54<br>(100%)  | 51<br>(100%)  | 41<br>(100%)  | 43<br>(100%)  | 22<br>(100%)  | 21<br>(100%)  | 45<br>(100%)  |
| Mean                | 1.93          | 1.92          | 1.88          | N/C           | N/C           | N/C           | N/C           |

There has been a decline in the number of people who have experienced problems with the service they received once they contacted Aqwest. The percentage of people who have experienced service problems has fallen from 13.7% in 2003 to 7.4% in 2004.

Subsequently there has also been a 1.7% increase in the number of people who haven't had to contact Aqwest (no problem with service), a result of 84% in 2004.

| Q8. What service pr          | oblems did   | VOIL AVDAR  | 0000 114   |            | - A - A               | 1          |           |
|------------------------------|--------------|-------------|------------|------------|-----------------------|------------|-----------|
| ,                            | 90,011,3 0,0 | Multiple)   | Response   | you contac | cted Adwe             | ST!        |           |
|                              |              | (· .4/c/p/c | Base: Resn | ondents wi | nn answere            | d vec to C | 14 and 07 |
| Responses                    | Total        | Total       | Total      | Total      | Total                 | Total      | Total     |
|                              | 2004         | 2003        | 2002       | 2001       | 2000                  | 1999       | 1998      |
|                              |              |             |            | 200.       | 2000                  | 1777       | 1770      |
|                              | 4            | 7           | 5          | 4          | 5                     | 3          | 3         |
| <u> </u>                     | (100%)       | (100%)      | (100%)     | (100%)     | (100%)                | (100%)     | (100%)    |
| Long Delays Before           | 0            | 2           |            | 2          | 3                     | 0          | 0         |
| Action                       | (0.0%)       | (28.5%)     | (20%)      | (50%)      | (60%)                 | (0%)       | (0%)      |
| Difficulty Finding the       | 0            | 0           |            |            | <del>- ` - ` - </del> | 1          | 0         |
| Right Person to Talk         | (0%)         | (0%)        | (20%)      | (25%)      | (20%)                 | (33.3%)    | (0%)      |
| With                         |              |             |            |            | ` '                   |            |           |
| Long Telephone               |              | 0           | 0          | 0          | I                     | 0          | 0         |
| Delays During                | (25%)        | (0%)        | (0%)       | (0%        | (20%)                 | (0%)       | (0%)      |
| Office Hours                 |              |             |            |            |                       | , ,        | ` '       |
| Long Telephone               | 0            | 0           | 0          | 0          |                       | 0          | 0         |
| Delays Outside of            | (0%)         | (0%)        | (0%)       | (0%        | (20%)                 | (0%)       | (0%)      |
| Office Hours                 |              |             |            |            |                       | ` '        |           |
| Long Queues at the           | 0            | 0           | 0 ;        | N/A        | N/A                   | N/A        | N/A       |
| Service Counter              | (0%)         | (0%)        | (0%)       |            |                       |            |           |
| Employees Using              | 0            | 0           | 0 . ;      | N/A        | N/A                   | N/A        | N/A       |
| Unknown Jargon               | (0%)         | (0%)        | (0%)       |            | į                     |            | <u> </u>  |
| Slow Response to             | 0            | 0           | 0          | N/A        | N/A                   | N/A        | N/A       |
| Written                      | (0%)         | (0%)        | (0%)       |            |                       |            |           |
| Communication                |              |             |            |            |                       |            | :         |
| Lack of Courtesy             | (250)        | 0           |            | 2          | 3                     | 0          | ı         |
| Confusion with the           | (25%)        | (0%)        | (20%)      | (50%)      | (60%)                 | _(0%)      | (33.3%)   |
|                              | 0            | 0           | 0          | 0          |                       | 0          | 0         |
| White Pages Hard to find the | (0%)         | (0%)        | (0%)       | (0%        | (20%)                 | (0%)       | (0%)      |
|                              | 0            | 0           | 0          | 0          | 0                     | 0          | 0         |
| Correct Number               | (0%)         | (0%)        | (0%)       | (0%        | (0%)                  | (0%)       | (0%)      |
| Aqwest Did Not               | 2 (50%)      | 0           | 0          | N/A        | N/A                   | N/A        | N/A       |
| Return My Call               | (50%)        | (0%)        | (0%)       |            |                       |            |           |
| No Action Taken/             | (7Ee/)       | 3           | (= = = ::  | 0          | 4                     | 0          | 2         |
| Problem Not Solved           | (75%)        | (5.8%)      | (20%)      | (0%)       | (80%)                 | (0%)       | (67.7%)   |
| Can't Say                    | 0            | 0           | 0          | N/A        | N/A                   | N/A        | N/A       |
| 0.1                          | (0%)         | (0%)        | (0%)       |            |                       |            | !         |
| Other                        | (0.084)      | 2           | 2          | N/A        | N/A                   | N/A        | N/A       |
|                              | (0.0%)       | (3.9%)      | (40%)      |            |                       |            |           |

<sup>\*</sup>Responses unprompted from 1998 onwards.

Of the four people who were eligible to answer this question, one of them experienced long telephone delays during office hours, one of them experienced a lack of courtesy, two noted that Aqwest did not return their call and three of them indicated their problem was not solved or no action was taken to fix the problem.

# 6.5 Positive aspects of service

| Q9. When you contacted Aqwest, what were the positive aspecteceived? | ts of the service that you    |
|--|-------------------------------|
| (Multiple Response possible)   |                               |
|  | ndents who answered yes to Q4 |
| Responses  | Total                         |
| ·  | 2004                          |
|  | 2004                          |
| !<br>!   | 54                            |
|  | (100%)                        |
| Prompt action taken by Aqwest  | 38                            |
|  | 1 7 7                         |
| Easily found the right person to speak to                            | (70.4%)                       |
| , a ,  | (12.0%)                       |
| Quick telephone response during office hours                         | (13.0%)                       |
| to an experience and mig office floats                               | 5                             |
| Quick telephone response outside of office hours                     | (9.3%)                        |
| densy repaired appointe on guide of ource float?                     | 4                             |
| Short / no waiting time at the service counter                       | (7.4%)                        |
| Shore the Walting Sine at the Service Counter                        |                               |
| Employees used simple to the deli                                    | (1.9%)                        |
| Employees used simple terms and language                             | 3                             |
| <u> </u>   | (5.6%)                        |
| Courteous  | 20                            |
|  | (37.0%)                       |
| Can't say  | 7                             |
|  | (13.0%)                       |
| Other  | 2                             |
|  | (3.7%)                        |

Respondents in 2004 found the response time taken by Aqwest to be the most positive aspect of the service that they received, with 70.4% of respondents indicating that this was the case. 37% of respondents indicated that the courteous service that they received was also a positive aspect.

Other elements of Aqwest's service seemed to be less significant with 13.0% of respondents indicating that they easily found the right person to speak to and 13.0% indicated that they could not identify positive aspects of the service.

# 7.0 Current water quality issues

## 7.1 Water quality

| Postores      |         | Ba:         | se: All Respond |
|---------------|---------|-------------|-----------------|
| Responses     | Total   | Total       | Total           |
|               | 2004    | 2003        | 2002            |
|               | 350     | 362         | 342             |
|               | (100%)  | (100%)      | (100%)          |
| (I) Yes       | 85      | 74          | 67              |
|               | (24.3%) | (20.4%)     | (19.6%)         |
| (2) No        | 265     | 283         | 272             |
|               | (75.7%) | (78.2%)     | (79.5%)         |
| (3) Can't Say | (0.0%)  | 5<br>(1.4%) | 3<br>(0.9%)     |
| Mean          | 1.76    | 1.81        | 181             |

As these two questions were posed as one question in the 2001 survey, comparison prior to 2002 is not valid.

There has been an increase in the number of people who have experienced water quality problems, from 20.4% in 2003 to 24.3% in 2004.

### 7.2 Water Pressure

| Q12. Have you experienced any p in the past 12 months? | problems with the water pressure supplied to your residence |
|--|---|
| •  |   |

|                                     |                |                | Base: All Respondents     |
|-------------------------------------|----------------|----------------|---------------------------|
| Responses                           | Total<br>2004  | Total<br>2003  | Total<br>2002             |
|                                     | 350<br>(100%)  | 362<br>(100%)  | 338 (4 missing)<br>(100%) |
| (I) Yes                             | 49<br>(14.0%)  | 46<br>(12.7%)  | 44 (13%)                  |
| (2) No                              | 300<br>(85.7%) | 314<br>(86.7%) | 293<br>(86.7%)            |
| (3) Can't Say                       | (0.3%)         | 2<br>(0.6%)    | (0.3%)                    |
| * This mean has been calculated wit | 1.86*          | 1.88           | 1.87                      |

<sup>\*</sup> This mean has been calculated with the Can't Say response excluded.

The incidence of water pressure problems has increased from 12.7% in 2003 to 14.0% in 2004. It is important to note that the percentage of people not experiencing water pressure problems has decreased from 86.7% in 2003 to 85.7% in 2004 and the percentage of can't say has decreased slightly to 0.3% of respondents in 2004.

ŢΙ

| Cross Tabulation of Q11 and Q12   |  |                |           |                |
|---|--|----------------|-----------|----------------|
| Q11. Have you experienced any problems with water quality supplied to your residence in the | Q12. Have You with water press in the past 12 mo | Totals         |           |                |
| past 12 months?   | Yes  | No             | Can't Say |                |
| Yes   | 18<br>(5.1%)                                     | 66<br>(18.9%)  | (0.3%)    | 85<br>(24.3 %) |
|   | 31<br>(8.9%)                                     | 234<br>(66.9%) | 0 (0%)    | 265<br>(75.7%) |
| Can't Say   | 0<br>(0%)  | 0<br>(0%)      | 0 (0%)    | 0<br>(0%)      |
| Totals  | 49<br>(14.0%)                                    | 300<br>(85.7%) | (0.03%)   | 350<br>(100%)  |

The percentage of respondents who have experienced problems with both their water quality and pressure over the past 12 months has risen from 4.7% in 2003 to 5.1% in 2004. A further 8.9% of respondents have indicated that they have experienced a water pressure problem but no water quality problem which is an increase of 1.2% from a total of 7.7% in 2003.

Respondents who experienced water quality problems but not water pressure problems made up 18.9% of the sample population which has increased by 3.2% on the 2003 response of 15.7% of the sample population.

The percentage of respondents who experienced a problem with either water pressure or quality or both has increased from 28.2% of the sample population in 2003 to 33.4% in 2004.

The percentage of respondents who have not experienced either problem in the past 12 months has increased from **64.9%** in 2003 to **66.9%** in 2004.

| Q13. Were you co | 13. Were you contacted prior to experiencing these problems? |                 |                |               |               |               |               |  |  |  |  |
|------------------|--|-----------------|----------------|---------------|---------------|---------------|---------------|--|--|--|--|
|                  | Base: All respondents who answered yes to either Q11 or Q1   |                 |                |               |               |               |               |  |  |  |  |
| Responses        | Total<br>2004  | Total<br>2003   | Total<br>2002  | Total<br>2001 | Total<br>2000 | Total<br>1999 | Total<br>1998 |  |  |  |  |
|                  | 116*<br>(100%)   | 102<br>(100%)   | 100*<br>(100%) | 55<br>(100%)  | 47<br>(100%)  | 70<br>(100%)  | 97<br>(100%)  |  |  |  |  |
| (I) Yes          | 19<br>(16.4%)  | 12<br>  (11.7%) | 12<br>(12%)    | 0 (0%)        | 2<br>(4.3%)   | 7 (10%)       | 5<br>(5.2%)   |  |  |  |  |
| (2) No           | 94<br>(81.0%)  | 77<br>(75.5%)   | 84<br>(84%)    | 52<br>(94.5%) | 38<br>(80.9%) | 49<br>(70%)   | 89<br>(91.2%) |  |  |  |  |
| (3) Can't Say    | (2.6%)   | 13<br>(12.7%)   | 4 (4%)         | 3<br>(5.5%)   | 7 (14.9%)     | (20%)         | (3.1%)        |  |  |  |  |
| Mean             | 1.83**   | 2.01            | 1.92           | N/S           | N/S           | N/S           | N/S           |  |  |  |  |

There has been a rise in the percentage of respondents who were contacted prior to experiencing problems as well as those that were not. Those that were contacted increased from 11.7% in 2003 to 16.4% in 2004. Those that were not contacted increased from 75.5% in 2003 to 81.0% in 2004. This has broken the downwards trend of this response over the previous two years. Subsequently the percentage of respondents who could not say declined from 12.7% in 2003 to 2.6% in 2004.

| <u> </u>      |               | Base: All r     | espondent     | s who ansv    | vered yes t   | o either Q    | ll or O      |
|---------------|---------------|-----------------|---------------|---------------|---------------|---------------|--------------|
| Responses     | Total 2004    | Total 2003      | Total<br>2002 | Total<br>2001 | Total<br>2000 | Total<br>1999 | Tota<br>1998 |
|               | 116<br>100%   | 102*<br>100%    | (100%)        | 55<br>(100%)  | 47<br>(100%)  | 49<br>(100%)  | 92<br>(100%  |
| (I) Yes       | 20<br>(17.2%) | 16<br>  (15.7%) | 21<br>(21%)   | <br>  (25.5%) | 12<br>(25.5%) | 6 (12.2%)     | 18 (19.6%    |
| (2) No        | 96<br>(82.8%) | - 86<br>(84.3%) | 78<br>(78%)   | 41 (74.5%)    | 32<br>(68.1%) | 42 (85.7%)    | 74<br>(80.4% |
| (3) Can't Say | N/A           | N/A             | (1%)          | N/A           | N/A           | N/A           | N/A          |
| Mean          | 1.83          | 1.84            | 1.80          | N/S           | N/S           | N/S           | N/S          |

The percentage of respondents who found it necessary to report water pressure or quality problems increased over the past 12 months from 15.7% in 2003 to 17.2% in 2004.

| Q15. On a scal  | Q15. On a scale of 1-5 where 1 represents very satisfied and 5 represents very dissatisfied how |             |           |                          |            |            |   |          |  |  |  |  |
|-----------------|---|-------------|-----------|--------------------------|------------|------------|---|----------|--|--|--|--|
| pleased were y  | ou with the re  | esponse giv | en by Aav | wect)                    | id 2 lebie | seurz verk | dissatistie                                       | d how    |  |  |  |  |
|                 | Base: All respondents who found it necessary to report a water leak to Aqwest                   |             |           |                          |            |            |   |          |  |  |  |  |
| Respo           | nses  | Total       | Total     | Total                    | Total      | Total      |   |          |  |  |  |  |
|                 |   | 2004        | 2003      | 2002                     |            | ſ          | Total   | Total    |  |  |  |  |
|                 |   |             |           | 2002                     | 2001       | 2000       | 1999  | 1998     |  |  |  |  |
|                 |   | 20          | 16        | 21                       | 14         | 13         |   |          |  |  |  |  |
|                 |   | (100%)      | (100%)    | (100%)                   |            | (100%)     | 8   | 18       |  |  |  |  |
| Overall         | (I) Very  | 5           | 7         | (100%)                   | (100%)     | (100%)     | (100%)  | (100%)   |  |  |  |  |
| Satisfaction    | Satisfied   | (25.0%)     | (10.70/)  | ייטרט דרט.<br>ייטרט דרט. | 2          | 3          | 0   | 5        |  |  |  |  |
| N=10            | (2)   | 5           | (18.7%)   | (23.8%)                  | (14.3%)    | (25%)      | (0%)  | (27.8%)  |  |  |  |  |
| 50.0%           | Satisfied   | , -         | 110.700   | 4                        | 7          | 4          | 5   | 4        |  |  |  |  |
|                 | l   | (25.0%)     | (18.7%)   | (19%)                    | (50%)      | (33.3%)    | (62.5%)   | (22.2%)  |  |  |  |  |
| (3) Ne          | utrai   | 4           | 4         | 3                        |            | 3          | 0   | <u> </u> |  |  |  |  |
|                 |   | (20.0%)     | (25%)     | (14.3%)                  | (7.1%)     | (25%)      | (0%)  | (5.6%)   |  |  |  |  |
| Overall         | (4)   | 3           | 5         | 5                        | 4          | 2          | <del>- \                                   </del> | 3        |  |  |  |  |
| Dissatisfaction | Dissatisfied  | (15.0%)     | (31.2%)   | (23.8%)                  | (28.6%)    | (16.7%)    | (12.5%)   | (16.7%)  |  |  |  |  |
| N=6             | (5) Very  | 3           | l         | 4                        | 0          | 0          | 7 2.370)  | 4        |  |  |  |  |
| 30.0%           | Dissatisfied  | (15.0%)     | (6.2%)    | (19%)                    | (0%)       | (0%)       | (25%)   |          |  |  |  |  |
| Mea             | n   | 2.70        | 2.88      | 2.95                     | 3.50       | 3.67       |   | (22.2%)  |  |  |  |  |
|                 |   |             |           | 4.73                     | J.JU       | J.0/       | 3.00  | . 3.18 i |  |  |  |  |

<sup>\*</sup>Please note that the sum of respondents who answered yes to Q11 or Q12 equates to 134. The total number of respondents for the above two questions is only 116, this is because 18 of the respondents had problems with both water quality and water pressure.

<sup>\*\*</sup> This mean has been calculated with the Can't Say response excluded.

\*Question reworded from previous years.

~It is also important to note that the values given to the answers were inverse in previous years. For example, Very Satisfied was represented by 5. To recalculate the mean it is necessary to calculate how far it is from the relevant end point and inverse it.

**50.0%** of respondents indicated that they were either very satisfied or satisfied with the response that they received from Aqwest. This is an increase of 12.5% from the 2003 total satisfaction response of **37.5**%.

There has also be a decline in the percentage of respondents who were dissatisfied with the response given by Aqwest from 37.4% in 2003 to 30.0% in 2004. Those respondents that were dissatisfied cited the following reasons:

- The problem has not been fixed 3 respondents
- Bad customer service, Aqwest failed to apologise 2 respondents
- Did not receive a response I respondents

There has also been a decline in the percentage of respondents who remain neutral with their response, from 25% in 2003 to 20% in 2004.

## 7.3 Service Interruptions

| Responses                    | Total                     | T-4 -         | <del></del>     | <del>,</del>   |               | Base: All re   | spondents      |
|------------------------------|---------------------------|---------------|-----------------|----------------|---------------|----------------|----------------|
| пезропаез                    | 2004                      | Total<br>2003 | Total<br>2002   | Total<br>2001  | Total<br>2000 | Total<br>1999  | Total<br>1998  |
|                              | 350<br>(100%)             | 362<br>(100%) | 342<br>(100%)   | 303<br>(100%)  | 226<br>(100%) | 307<br>(100%)  | 301<br>(100%)  |
| (I) No Interruption          | 242<br>(69.1%)            | (63.8%)       | 25 l<br>(73.4%) | 246<br>(81.2%) | 147<br>(65%)  | 230<br>(74.9%) | 215<br>(71.4%) |
| (2) Once                     | 6 <del>4</del><br>(18.3%) | 48<br>(13.3%) | 52<br>(15.2%)   | 16<br>(5.3%)   | .23           | 32 (10.4%)     | 32<br>(10.6%)  |
| (3) Twice                    | 25<br>(7.1%)              | 30<br>(8.3%)  | 17<br>(5%)      | (3.6%)         | 6 (2.7%)      | (3.6%)         | 6<br>(2%)      |
| (4) Three Times              | 10<br>(2.9%)              | 3<br>(0.8%)   | 9 (2.6%)        | 0 (0%)         | 3 (1.3%)      | 5<br>(1.6%)    | 5<br>(1.7%)    |
| (5) More Than<br>Three Times | 2<br>(0.6%)               | 4 (1.1%)      | 2 (0.6%)        | (0.3%)         | 3 (1.3%)      | (0.3%)         | (0.3%)         |
| (6) Can't Say                | 7<br>(2.0%)               | 46<br>(12.7%) | (3.2%)          | N/A            | N/A           | N/A            | N/A            |
| Mean This mass has been      | 1.44*                     | 2.00          | 1.51            | N/S            | N/S           | N/S            | N/S            |

This mean has been calculated with the Can't Say response excluded.

The percentage of respondents who have not had their water interrupted has increased from 63.8% in 2003 to 69.1% in 2004. Being a KPI, this measure has a target of 85% or higher, this target has not been reached in the last seven years.

The number of respondents who have had their water supply interrupted at least once has increased from 23.5% in 2003 to 28.9% in 2004.

There has been a significant decrease in the percentage of respondents who could not say from 12.7% in 2003 to 2.0% in 2004.

| Q17. On average          | Base: ,       | id the interr<br>All responde | uption last<br>ents who ha | for?<br>ive had thei | r water inte  | errupted at   | least once    |
|--------------------------|---------------|-------------------------------|----------------------------|----------------------|---------------|---------------|---------------|
| Responses                | Total<br>2004 | Total<br>2003                 | Total<br>2002              | Total<br>2001        | Total<br>2000 | Total<br>1999 | Total<br>1998 |
|                          | 101<br>(100%) | 85<br>(100%)                  | 80<br>(100%)               | 28<br>(100%)         | 38<br>(100%)  | 49<br>(100%)  | 44 (100%)     |
| (1) Up to an hour        | 35<br>(34.7%) | 27<br>(31.8%)                 | 26<br>(32.5%)              | 10<br>(35.7%)        | 9 (23.7%)     | 30<br>(61.2%) | 17<br>(38.6%) |
| (2) 1-5 hours            | 44<br>(43.6%) | 29<br>(34.1%)                 | 40<br>(50%)                | 12<br>(42.9%)        | 34.2%)        | (30.6%)       | 19<br>(43.2%) |
| (3) More than 5<br>hours | 7<br>(6.9%)   | 13<br>(15.3%)                 | (13.7%)                    | (3.6%)               | 8<br>(21.1%)  | (2%)          | 4<br>(9.1%)   |
| (4) Can't Say            | 15<br>(14.9%) | 16<br>(18.8%)                 | 3<br>(3.7%)                | N/A                  | N/A           | N/A           | N/A           |
| Mean                     | 1.67*         | 2.21                          | 1.89                       | N/S                  | N/S           | N/S           | · N/S         |

There has been a significant increase in the number of interruptions that lasted for between 1-5 hours from 34.1% of respondents in 2003 to 43.6% in 2004.

The percentage of respondents that indicated that the interruption lasted for more than 5 hours has fallen from 15.3% in 2003 to 6.9% in 2004.

The number of interruptions that lasted for less than an hour has increased from 31.8% in 2003 to 34.7% in 2004.

| Responses                 | Total<br>2004 | e had their water inte  Total  2003 | Total 2002     |  |
|---------------------------|---------------|-------------------------------------|----------------|--|
|                           | 101<br>(100%) | 85<br>(100%)                        | 08<br>(%001)   |  |
| (1) Yes, in all instances | 72<br>(71.3%) | 65<br>(76.5%)                       | 50<br>(62.5%)  |  |
| 2) Yes, in some instances | <br>(10.9%)   | 2 (2.4%)                            | 7<br>(8.75%)   |  |
| (3) Never                 | 17<br>(16.8%) | 9<br>(10.6%)                        | 21<br>(26.25%) |  |
| (4) Can't Say             | l<br>(1.0%)   | 9 (10.6%)                           | 2<br>(2.5%)    |  |
| Mean                      | 1.45*         | 1.55                                | 1.69           |  |

<sup>\*</sup> This mean has been calculated with the Can't Say response excluded.

In 2004 there has been a decrease in the percentage of respondents who were contacted in all instances from 76.5% in 2003 to 71.3% in 2004. There has also been an increase in the number of respondents who indicated that they were never notified prior to each shut off from 10.6% in 2003 to 16.8% in 2004. The number of respondents who could not say declined from 10.6% or respondents to 1.0% of respondents.

The number of respondents who were notified at all, increased from **78.9**% in 2003 to **82.2**% in 2004. This indicates that in 2004 Aqwest notified residents of shut offs more than in 2003 but that this notification was not consistent and did not happen all of the time.

<sup>\*</sup> This mean has been calculated with the Can't Say response excluded.

| Responses                | Total         | All respond<br>Total | - T           | T =           | II WALEI MIE  |               |                 |
|--------------------------|---------------|----------------------|---------------|---------------|---------------|---------------|-----------------|
|                          | 2004          | 2003                 | Total<br>2002 | Total<br>2001 | Total<br>2000 | Total<br>1999 | Total           |
|                          | 83<br>(100%)  | 85<br>(100%)         | 80<br>(100%)  | 20<br>(100%)  | 23<br>(100%)  | 36<br>(100%)  | 27<br>(100%)    |
| (I) Yes                  | 72<br>(86.7%) | 63<br>(74.1%)        | 62<br>(77.5%) | 13<br>(65%)   | 12<br>(52.2%) | 32<br>(88.9%) | 21<br>(77.7%)   |
| (2) No                   | 4<br>(4.8%)   | 3<br>(3.5%)          | 4<br>(5%)     | (0%)          | 5<br>(21.7%)  | 0 (0%)        | (0%)            |
| (3) Can't Say            | 7<br>(8.4%)   | 19<br>(22.4%)        | 14<br>(17.5%) | 7<br>(35%)    | 6 (26.1%)     | 6 (16.7%)     | 6<br>(22.2%)    |
| Mean<br>This mean has be | 1.05*         | 1.48                 | 1.40          | N/S           | N/S           | N/S           | (22.276)<br>N/S |

<sup>\*</sup> This mean has been calculated with the Can't Say response excluded.

There has been a significant increase in the percentage of respondents who had their services reinstated within the specified timeframe from 74.1% in 2003 to 86.7% in 2004.

The number of respondents who indicated that their water was not turned on within the specified time frame also increased slightly from 3.5% in 2003 to 4.8% in 2004.

The percentage of respondents who recorded a response of 'can't say' fell in 2004, from 22.4% in 2004 to 8.4% in 2004.

Q20. On a scale of 1-5 where 1 is not inconvenient and 5 is extremely inconvenient, how would you rate the level of inconvenience caused by the disruption to the water supply?

|                      |               |              | a of are dist | ahnou to t  | ne water si  | трріу!       |               |
|----------------------|---------------|--------------|---------------|-------------|--------------|--------------|---------------|
|                      | Base: A       | VII responde | nts who hav   | e had their | water inte   | rrupted at   | least once    |
| Responses            | 10141         | lotai        | Total         | Total       | Total        | Total        | Total         |
|                      | 2004          | 2003         | 2002          | 2001        | 2000         | 1999         | 1998          |
|                      | 101<br>(100%) | 85<br>(100%) | 80<br>(100%)  | 28 (100%)   | 38<br>(100%) | 49<br>(100%) | 44<br>(100%)  |
| (I) Not at all       | 52            | 44           | 42            | 13          | 10           | 27           | 13            |
| inconvenient         | (51.5%)       | (\$1.8%)     | (52.5%)       | (46.4%)     | (26.3%)      | (55.1%)      | (29.5%)       |
| (2) Not              | 21            | 22           | 19            | 9           | 8            | 10           | · · · /       |
| inconvenient         | (20.8%)       | (25.9%)      | (23.75%)      | (32.1%)     | (21.1%)      | (20.4%)      | 10<br>(22.7%) |
| (3) Neither          | 20            | 10           | 8             | 3           | 10           | 7            | 14            |
| 74X1                 | (19.8%)       | (11.8%)      | (10%)         | (10.7%)     | (26.3%)      | (14.3%)      | (31.8%)       |
| (4) Inconvenient     | 3             | 5            | I             | 0           | 3            | 0            | 1             |
|                      | (3.0%)        | (5.9%)       | (1.25%)       | (0%)        | (7.9%)       | (0%)         | (2.3%)        |
| (5) Extremely        | 5             | 4            | 10            | <del></del> | 3            | 1            | 0             |
| inconvenient         | (5.0%)        | (4.7%)       | (12.5%)       | (3.6%)      | (7.9%)       | (2%)         | (0%)          |
| Mean *Places are all | 1.89          | 1.86         | 1.98          | 4.31*       | 3.56*        | 4.38*        | 3.92*         |

<sup>\*</sup>Please note that in previous years the value '3' represented "Moderately inconvenient"

<sup>—</sup>It is also important to note that the scale was inverse in previous years; meaning that 'l' represented "extremely inconvenient" and '5' represented "Not inconvenient". The scale has been reversed in the 2002 survey to ensure consistency in scales throughout the survey and minimize associated errors. To

invert the means it is necessary to calculate how far they are from the relevant end point and convert it to the current scale.

For Example, 2001 mean is 4.31, if we subtract this from 5 we see that it is 1.16 from the end point (5). Therefore the inverted mean is 1.16 this figure can be compared with the 2002 mean.

It appears that the level of inconvenience amongst the 2004 respondents has not changed from 2003 when considering the percentage of respondents who indicated the interruption was not at all inconvenient; this figure has fallen very slightly from 51.8% in 2003 to 51.5% in 2004.

The level of overall inconvenience has once again fallen amongst the two response categories, inconvenient and extremely inconvenient from 10.6% in 2003 to 8.0% in 2004.

The reasons cited by respondents who indicated that they found the interruption either inconvenient or extremely inconvenient were mainly related to the householder not being able to undertake their daily tasks, as well as the staining created by water discolouration. One respondent indicated that the fact that they were not notified was the main cause of inconvenience.

The overall percentage of respondents that rated the interruption as not at all inconvenient or not inconvenient has fallen from 77.7% in 2003 to 72.3% in 2004.

There was a slight increase in the mean from 1.86 to 1.89 indicating that the responses have skewed it more towards the inconvenient end of the scale. As the level of inconvenient responses has fallen this year, this skew can be largely attributed to the increase in neutral responses from 11.8% in 2003 to 19.8% in 2004.

# 7.4 Water Filtration / Tap Water Alternatives

| Responses     | T-41           |                |                |                |                | Base: All re   | sponden        |
|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Responses     | Total<br>2004  | Total<br>2003  | Total<br>2002  | Total<br>2001  | Total<br>2000  | Total<br>1999  | Total<br>1998  |
|               | 350<br>(200%)  | 362<br>(100%)  | 342<br>(100%)  | 303<br>(100%)  | 226<br>(100%)  | 307<br>(100%)  | 301<br>(100%)  |
| (I) Yes       | 105<br>(30.0%) | (30.7%)        | 88<br>(25.7%)  | 63<br>(20.8%)  | 49<br>(21.7%)  | 60 (19.5%)     | 68             |
| (2) No        | 245<br>(70.0%) | 249<br>(68.8%) | 254<br>(74.3%) | 238<br>(78.5%) | 175<br>(77.4%) | 243<br>(79.2%) | 209            |
| (3) Can't Say | (0%)           | 2 (0.6%)       | (0%)           | N/A            | N/A            | N/A            | (69.4%)<br>N/A |
| Mean          | 1.70           | 1.70           | 1.74           | N/S            | N/S            | N/S            | N/S            |

The 2004 customer survey saw the responses to this question remained largely unchanged from 2003 with a slight decline in those respondents who use a water purifier or purchase bottled water from 30.7% in 2003 to 30.0% in 2004. There was a 0.2% increase in the number of householders that do not use a water purifier or purchase bottled water.

| Q22. Why don't you or members of you | r household drink  | tap water!        |                            |
|--------------------------------------|--------------------|-------------------|----------------------------|
| (Multi                               | ple Response Possi | ble)              | ·                          |
|                                      | Base: All responde | ents who answered | yes to question 21         |
| Responses                            | Total<br>2004      | Total<br>2003     | Total 2002                 |
| (1) 1:                               | 105<br>(100%)      | <br>  (100%)      | 88<br>(100%)               |
| (1) Has an unpleasant taste          | 50<br>(47.2%)      | 53<br>(47.7%)     | 55<br>(68.75%)             |
| (2) Has an unpleasant odour          | (10.4%)            | 9<br>(8.1%)       | 9 (10.23%)                 |
| (3) Not enough water pressure        | (0.9%)             | (0.9%)            | (1.13%)                    |
| (4) Can smell/taste the chlorine     | 49<br>(46.2%) :-   | 35<br>(31.5%)     | 31                         |
| (5) Has an unusual colour/ cloudy    | (10.4%)            | (9.9%)            | (35.23%)<br>10<br>(11.36%) |
| (6) Health Reasons                   | 12<br>(11.3%)      | 15<br>(13.5%)     | N/A                        |
| (7) Other please see below           | 22<br>(20.8%)      | 22<br>(19.8%)     | 20<br>(22.7%)              |

The 22 respondents that indicated a response other than those offered gave the following responses:

- Because its fashionable (1 respondent)
- Convenient (11 respondents)

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- Equipment supplied when purchased house (! respondent)
- Habit (1 respondent)
- Like to keep water in the fridge (2 respondents)
- Prefer bottled water (I respondent)
- Purchase bottled water based on advertising (I respondent)
- See the residue on the filter (I respondent)
- Worry about tap water contents (1 respondent)

Q28 A. Aqwest manages water resources well for the long term benefit of the community. Please indicate your level of agreement with this statement where I equals strongly agree and S equals strongly disagree.

| Paran                       |                                  | Total          |                |                | ·               |                | Base: All      | respondents    |
|-----------------------------|----------------------------------|----------------|----------------|----------------|-----------------|----------------|----------------|----------------|
| Kespoi                      | Responses                        |                | Total<br>2003  | Total<br>2002  | Total<br>2001   | Total<br>2000  | Total<br>1999  | Total<br>1998  |
|                             |                                  | 350<br>(100%)  | 362<br>(100%)  | 342<br>(100%)  | 303<br>(100%)   | 226<br>(100%)  | 307            | 301<br>(100%)  |
| Overall Agreement N=241     | (1)<br>Strongly<br>Agree         | (30.0%)        | (30.7%)        | (36%)          | 30<br>(13.3%)   | 30<br>(13.3%)  | 8<br>(2.6%)    | 73<br>(24.3%)  |
| (68.85%)                    | (2)<br>Agree                     | 136<br>(38.9%) | 143<br>(39.5%) | 115<br>(33.6%) | l 38<br>(45.5%) | 118<br>(52.2%) | 176<br>(57.3%) | 100<br>(33.2%) |
| (3) Neu                     | tral                             | 54<br>(15.4%)  | 89<br>(24.6%)  | 82<br>(24%)    | 20<br>(6.6%)    | 20<br>(8.8%)   | (2.6%)         | 60<br>(19.9%)  |
| Overall<br>Disagreeme<br>nt | ( <del>1</del> )<br>Disagre<br>e | 7<br>(2.0%)    | 16<br>(4.4%)   | 16<br>(4.7%)   | 4<br>(1.3%)     | 8<br>(3.5%)    | (3.6%)         | (3.7%)         |
| N=15<br>(4.3%)              | (5)<br>Strongly<br>Disagre<br>e  | 8<br>(2.3%)    | 3<br>(0.8%)    | 6<br>(1.8%)    | 3<br>(1%)       | 4<br>(1.8%)    | 0<br>(0%)      | 3<br>(1%)      |
| Can't Say / Do<br>(exclud   | n't Know<br>ed)                  | 40<br>(30.7%)  | N/A            | N/A            | 108 (35.6%)     | 46<br>(20.4%)  | 104 (33.9%0    | 54<br>(18%)    |
| Mean                        |                                  | 1.96*          | 2.05           | 2.03           | 2.04**          | 2.10**         | 2.11**         | 2.07**         |

<sup>\*</sup> This mean has been calculated with the Can't Say response excluded.

\*\*It is important to note that the scale was inverse in previous years; meaning that '1' represented "extremely inconvenient" and '5' represented "Not inconvenient". The scale has been reversed in the 2002 survey to ensure consistency in scales throughout the survey and minimize associated errors. To invert the means it is necessary to calculate how far they are from the relevant end point and convert it to the current scale. For Example, 2001 mean is '4.31', if we subtract this from 5 we see that it is '1.16' from the end point (5). Therefore the inverted mean is '1.16' this figure can be compared with the 2002 mean.

There has been a slight decline in the percentage of respondents that indicated strongly agree from 30.7% in 2003 to 30.0% in 2004 along with a decrease in the number of respondents that agreed from 39.5% in 2004 to 38.9% in 2004. Overall agreement therefore fell from 70.2% in 2003 to 68.9% in 2004.

Overall disagreement has also fallen from 5.2% in 2003 to 4.3% in 2004. Respondents who strongly disagreed however, increased from 0.8% in 2003 to 2.3% in 2004.

The reasons given by respondents who disagreed or strongly disagreed included the following:

- Cost (2 responses)
- Think that more planning is needed (3 respondents)
- Water restrictions (5 respondents)
- Council perceived to be wasting water (2 respondents)

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- Disagree with concept of supplying local water to Perth (2 respondents)
- Water quality and pressure poor (2 respondents)
- Don't know (I respondent)

Q28 C. Aqwest is planning effectively for the future.

Please indicate your level of agreement with this statement where 1 equals strongly agree and 5 equals strongly disagree.

| D ====    |             |         |         |         |         |         | ase: All res | pondents  |
|-----------|-------------|---------|---------|---------|---------|---------|--------------|-----------|
| Respo     | nses        | Total   | Total   | Total   | Total   | Total   | Total        | Total     |
|           |             | 2004    | 2003    | 2002    | 2001    | 2000    | 1999         | 1998      |
|           |             |         |         |         |         |         |              |           |
|           |             | 350     | 362     | 342     | 303     | 226     | 307          | 301       |
|           |             | (100%)  | (100%)  | (100%)  | (100%)  | (100%)  | (100%)       | (100%)    |
| Overall   | (1)         | 73      | 70      | 71      | 29      | 19      | 6            | 47        |
| Agreement | Strongly    | (20.9%) | (19.3%) | (20.8%) | (9.6%)  | (8.4%)  | (2%)         | (15.6%)   |
| N=184     | Agree       |         |         | ,       | ` '     | (,      | (=/-/        | (1,5,070) |
| (52.5%)   | (2) Agree   | 111     | 129     | 104     | 112     | 94      | 163          | 85        |
|           |             | (31.7%) | (35.6%) | (30.4%) | (37%)   | (41.6%) | (53.1%)      | (28.2%)   |
| (3) Ne    | (3) Neutral |         | 139     | 138     | 16      | 24      | 12           | 55        |
|           |             | (14.6%) | (38.4%) | (40.3%) | (5.3%)  | (10.6%) | (3.9%)       | (18.3%)   |
| Overall   | (4)         | 8       | 17      | 20      | 6       | 7       | 2            | 8         |
| Disagreem | Disagree    | (2.3%)  | (4.7%)  | (5.8%)  | (2%)    | (3.1%)  | (0.7%)       | (2.7%)    |
| ent       | (5)         | 7       | 7       | 9       | 2       |         | 0            | 3         |
| N=15      | Strongly    | (2.0%)  | (1.9%)  | (2.6%)  | (0.7%)  | (0.4%)  | (0%)         | (1%)      |
| (4.3%)    | Disagree    |         |         |         | , ,     | ( )     | ()           | ( )       |
| Can't Say | /Don't      | 100     | N/A     | N/A     | 138     | - 81    | 124          | 103       |
| know(exc  | :luded)     | (28.6%) |         |         | (45.5%) | (35.8%) | (40.4%)      | (34.3%)   |
| Mea       | n           | 2.06*   | 2.34    | 2.39    | 2.04*** | 2.15**  | 2.05**       | 2.17**    |

<sup>\*</sup> This mean has been calculated with the Can't Say response excluded.

The 2003 results regarding the respondent's agreement with the statement, Aqwest is planning effectively for the future; indicates an increase in the percentage of respondents who strongly agree from 19.3% in 2003 to 20.9% in 2004 along with a fall in the percentage of respondents who agreed. (Down from 35.6% in 2003 to 31.7% in 2004).

Overall agreement fell from 54.9% in 2003 to 52.6% in 2004. This does not meet with Aqwest KPI target of 85%.

Overall disagreement fell from 6.6% in 2003 to 4.3% in 2004. Respondents who disagreed or strongly disagreed gave reasons that fell under the following broad categories:

- Lack or public awareness and information provided (3 respondents)
- Felt that more planning for the future is required (5 respondents)

<sup>\*\*</sup>It is important to note that the scale was inverse in previous years; meaning that 'l' represented . "extremely inconvenient" and '5' represented "Not inconvenient". The scale has been reversed in the 2002 survey to ensure consistency in scales throughout the survey and minimize associated errors. To invert the means it is necessary to calculate how far they are from the relevant end point and convert it to the current scale.

- Disagree with local water being used to supply Perth (2 respondents)
- Need to look at alternative water solutions (2 respondents)
- Too many water restrictions and shortages (4 respondents)

There was a large percentage decline in neutral responses from 38.4% in 2003 to 14.6% in 2004. A portion of this most likely went to Don't Know which received a 28.6% response. This response was not offered in 2003. The benefit of it being included in the 2004 survey is that it distinguishes between those respondents who neither feel negative or positive in their response, and those that do not know or cannot give a response.

| Q24. The war<br>Please indicate<br>strongly disag | e your level o       | y Aqwest is<br>of agreemen | safe to dri<br>t with this | nk.<br>statement v | where I eq    |               |               |               |
|---|----------------------|----------------------------|----------------------------|--------------------|---------------|---------------|---------------|---------------|
| Respo   | nrae.                | . T-6-1                    | <del></del>                |                    |               |               | Base: All re  | spondents     |
| Vesho   | 11262                | Total<br>2004              | Total<br>2003              | Total<br>2002      | Total<br>2001 | Total<br>2000 | Total<br>1999 | Total<br>1998 |
|   |                      | 350<br>(100%)              | 362<br>(100%)              | 342<br>(100%)      | 303<br>(100%) | 226<br>(100%) | 307<br>(100%) | 301<br>(100%) |
| Overail   | (1)                  | . 161                      | 176                        | 190                | 99            | 39            | 15            | 99            |
| Agreement<br>N=295                                | Strongly<br>Agree    | (46.0%)                    | (48.6%)                    | (55.6%)            | (32.7%)       | (17.3%)       | (4.9%)        | (32.9%)       |
| (84.3%)   | (2) Agree            | 134                        | 118                        | 107                | 146           | 34            | 240           | 39            |
|   |                      | (38.3%)                    | (32.6%)                    | (31.3%)            | (48.2%)       | (59.3%)       | (78.2%)       | (46.2%)       |
| (3) Ne  | utral                | 27<br>(7.7%)               | 51<br>(14.1%)              | 26<br>(7.6%)       | 24<br>(7.9%)  | 17            | 5             | 30            |
| Overall   | (4)                  | 10                         | 11                         | 9                  | 14            | (7.5%)        | (1.6%)        | (10%)         |
| Disagreement<br>N=14                              | Disagree             | (2.9%)                     | (3.0%)                     | (2.6%)             | (4.6%)        | (5.8%)        | /<br>(2.3%)   | 15<br>(5%)    |
|   | (5)                  | ' <del>4</del>             | 6                          | 10                 | 2             | 7             | 0             | 3             |
| (4.0%)  | Strongly<br>Disagree | (1.1%)                     | (1.7%)                     | (2.9%)             | (0.7%)        | (3.1%)        | (0%)          | (1%)          |
| Can't Say   |                      | 14                         | N/A                        | N/A                | 18            | 16            | 40            | 15            |
| know(exc  | :luded)              | (4.0%)                     |                            |                    | (5.9%)        | (7.1%)        | (13%)         | (5%)          |
| Mea   | ın                   | 1.70*                      | 1.77                       | 1.66               | 1.86          | 2.12          | 2.01          | 1.9           |

<sup>\*</sup> This mean has been calculated with the Can't Say response excluded.

The percentage of respondents who either agree or strongly agree with the above statement has increased from 81.2% in 2003 to 84.3% in 2004 however the number of respondents who strongly agree has fallen by 2.6%. Aqwest's target KPI of 85% of respondents in agreement with this statement has fallen slightly short by 0.7%.

There has been a decline in the number of respondents who disagree by 0.1% and those that strongly disagree by 0.6%. This has resulted in the overall disagreement falling from 4.7% in 2004 to 4.0% in 2004.

Those respondents that did disagree or strongly disagreed gave responses that fall within the following broad categories:

- Taste (5 respondents)
- Smell (2 respondents)

- Chemicals (3 respondents)
- Colour / sediment (2 respondents)
- Poor quality (! respondent)
- Asbestos water pipes (! respondent)

There has been a fall in the percentage of neutral responses given from 14.1% in 2003 to 7.7% in 2004. Some of this decline has been partially offset by a don't know response of 4.0%. This option was not available in the 2003 survey.

### 7.6 Aqwest charges

Q10. C. Aqwest charges fairly for its services.

Please indicate your level of agreement with this statement where I equals strongly agree and 5 equals strongly disagree.

|                         |                          |               | Bas            | e: All respondents |
|-------------------------|--------------------------|---------------|----------------|--------------------|
| ļ Kes<br>!              | ponses                   | Total<br>2004 | Total<br>2003  | Total<br>2002      |
|                         |                          | 350<br>(100%) | 362<br>(100%)  | 342<br>(100%)      |
| Overall<br>Agreement    | (1) Strongly Agree       | 90<br>(25.7%) | 85<br>(23.5%)  | (36%)              |
| N=238<br>(68%)          | (2) Agree                | (42.3%)       | 166<br>(45.9%) | (40.1%)            |
|                         | (3) Neutral              | 61<br>(17.4%) | 80<br>(22.1%)  | 44<br>(12.9%)      |
| Overall<br>Disagreement | (4) Disagree             | 24<br>(6.9%)  | 22<br>(6.1%)   | 27<br>(7.9%)       |
| N=33<br>(9.5%)          | (5) Strongly<br>Disagree | 9 (2.6%)      | 9 (2.5%)       | (3.2%)             |
|                         | Don't know               | 18<br>(5.1%)  | N/A            | N/A                |
| * This                  | ean !                    | 2.14*         | 2.18           | 2.02               |

<sup>\*</sup> This mean has been calculated with the 'Don't know' response excluded.

The KPI regarding this question is to achieve an overall agreement with the statement of 85% or higher. This target has not been achieved, with the overall agreement with the statement falling in 2003 from 69.3% in 2003 to 68.0% in 2004. The number of respondents who strongly agreed with the statement increased from 23.5% in 2003 to 25.7% in 2004.

There was a fall in the neutral response from 22.1% in 2003 to 17.4% in 2004. This was partially offset by an increase in those respondents who stated that they did not know (5.1%). This option was not available on previous surveys.

The overall level of disagreement with this statement increased from 8.6% in 2003 to 9.5% in 2004. Those respondents that disagreed (6.9%) or strongly disagreed (2.6%) indicated the following reasons:

Too expensive (6 respondents)

- System of determining charges is not fair (5 respondents)
- The price is not reflected in the quality of the water or service (2 respondents)
- Rebates should be offered to those that employ technology to save water (I respondent)
- Have problems with the consumption reading (I respondent)

Q10. A. The services provided by Aqwest are good value for money.

Please indicate your level of agreement with this statement where 1 equals strongly agree and 5 equals strongly disagree.

|            |           | ·       |         |         |         |                    | Base: All re | spondents                               |
|------------|-----------|---------|---------|---------|---------|--------------------|--------------|---|
| Respo      | nses      | Total   | Total   | Total   | Total   | Total              | Total        | Total                                   |
| }          |           | 2004    | 2003    | 2002    | 2001    | 2000               | 1999         | 1998                                    |
|            |           | :       |         | !<br>   | İ       | 1                  |              | 1                                       |
|            |           | 350     | 362     | 342     | 303     | 226                | 307          | 301                                     |
|            |           | (100%)  | (100%)  | (100%)  | (100%)  | (100%)             | (100%)       | (100%)                                  |
| Overall    | (1)       | 127     | 118     | 123     | 45      | 22                 | 3            | 59                                      |
| Agreement  | Strongly  | (36.3%) | (32.6%) | (36%)   | (14.9%) | (9.7%)             | (1%)         | (19.5%)                                 |
| N=268      | Agree     | :       |         | . ,     | ` ′     | , ,                |              | (************************************** |
| (74.0%)    | (2) Agree | 137     | 150     | 128     | 146     | 117                | 176          | 123                                     |
|            |           | (39.1%) | (41.4%) | (37.4%) | (48.2%) | (51.8%)            | (57.3%)      | (40.9%)                                 |
| (3) Ne     | ntral     | 58      | 82      | 49      | 56      | 43                 | 7            | 68                                      |
|            |           | (16.6%) | (22.7%) | (14.3%) | (18.5%) | (1 <del>9</del> %) | (2.3%)       | (22.6%)                                 |
| Overail    | (4)       | 15      | 7 ,     | 33      | 31      | 11                 | 19           | . 22                                    |
| Disagreeme | Disagree  | (4.3%)  | (1.9%)  | (9.6%)  | (10.2%) | (4.9%)             | (6.2%)       | (7.3%)                                  |
| nt         | (5)       | 2       | 5       | 9       | 5       | 2                  | 2            | 3                                       |
| N=12       | Strongly  | (0.6%)  | (1.4%)  | (2.6%)  | (1.7%)  | (0.9%)             | (0.7%)       | (1%)                                    |
| (3.3%)     | Disagree  |         |         |         | ` ′     | . ,                | ( ,          | ()                                      |
| Can't Say  |           | 11      | N/A     | N/A     | 20      | 31                 | 100          | 26                                      |
| know(exc   | :luded)   | (3.1%)  | į       |         | (6.6%)  | (13.7%)            | (32.6%)      | (8.6%)                                  |
| Mea        | n         |         | 1.98    | 2.06    | 2.31    | 2.25               | 2.23         | 2.23                                    |

This perception question has seen a rise in the percentage of respondents who either 'agree' or 'strongly agree' with the statement, with the percentage rising from an overall agreement of 73.1% in 2002 to 74% in 2003.

In addition to the rise in respondents who agree with the statement, there has been a significant fall in the percentage of respondents who disagree with the statement, falling from 12.3% in 2002 to 3.3% in 2003.

The percentage of respondents who remain neutral with regards to the statement has risen from 14.3% in 2002 to 22.7% in 2003, continuing the rising trend that this response has experienced for the last three years.

Q10. B. Aqwest supplies water of an acceptable quality.

Please indicate your level of agreement with this statement where I equals strongly agree and 5 equals strongly disagree.

| ,             |           |         |         |         |         |         |             |            |
|---------------|-----------|---------|---------|---------|---------|---------|-------------|------------|
|               |           | T       |         |         |         |         | Base: All 1 | espondents |
| Respo         | inses     | Total   | Total   | Total   | Total   | Total   | Total       | Total      |
|               |           | 2004    | 2003    | 2002    | 2001    | 2000    | 1999        | 1998       |
|               |           |         | f       |         |         |         | 1           | .,,,       |
| •             |           | 350     | 362     | 342     | 303     | 226     | 307         | 30:        |
|               |           | (100%)  |         | 1       |         | i . ——— |             | 301        |
|               | 775       |         | (100%)  | (100%)  | (100%)  | (100%)  | (100%)      | (100%)     |
| Overall       | (1)       | 112     | 112     | 165     | 112     | 34      | l 6         | 64         |
| . Agreement   | Strongly  | (32.0%) | (30.9%) | (48.2%) | (37%)   | (12%)   | (5.2%)      | (21.3%)    |
| N=267         | Agree     |         |         | ĺ       |         | , ,     | , ,         | (=::=:=)   |
| (75.4%)       | (2) Agree | 152     | 155     | 118     | 150     | 137     | 254         | 133        |
|               |           | (43.4%) | (42.8%) | (34.5%) | (49.5%) | (60.6%) | (82.7%)     | (44.2%)    |
| (3) Ne        | utrai     | 49      | 56      | 37      | 17      | 23      | 2           | 72         |
|               |           | (14.0%) | (15.5%) | (10.8%) | (5.6%)  | (10.2%) | (0.7%)      | (23.9%)    |
| Overall       | (4)       | 30      | 28      | 12      | 17      | 14      | 22          | 9          |
| Disagreeme    | Disagree  | (8.6%)  | (7.7%)  | (3.5%)  | (5.6%)  | (6.2%)  | (7.2%)      | (3%)       |
| nt            | (5)       | 6       | 11      | . 10    | 3       | 12      | 1 1         | 12         |
| N=36          | Strongly  | (1.7%)  | (3.0%)  | (2.9%)  | (1%)    | (5.3%)  | (0.3%)      | (4%)       |
| (10.3%)       | Disagree  |         | ` '     | . , ,   | ,       | ,       | (,          | (170)      |
| Can't Say / E | on't know | 1       | N/A     | N/A     | 4       | 6       | 12          | 11         |
| (exclu        | ded)      | (0.3%)  |         | ·       | (1.3%)  | (2.7%)  | (3.9%)      | (3.7%)     |
| Mea           | ın        | 2.04*   | 2.09    | 1.78    | 1.83    | 2.24    | 2.11        | 2.21       |
| +             | , , ,     |         |         |         |         |         | ·           |            |

<sup>\*</sup> This mean has been calculated with the 'Don't know' response excluded.

Overall agreement towards this statement has increased from 73.4% in 2003 to 75.4% in 2004. This however is still 9.6% short of successfully meeting the 85% KPI. The increase in overall agreement is attributed to a 1.1% increase in the percentage of respondents that strongly agreed with this statement and a 0.8% increase in respondents who agreed with the statement.

There was a slight decrease in overall disagreement, falling from 10.7% in 2003 to 10.3% in 2004 however the percentage of respondents of people that disagreed increased by 0.9%.

Respondents that either disagreed or strongly disagreed did so for the following broad reasons:

- Water had a bad or chemical taste (22 respondents)
- Water had a bad smell (2 respondents)
- Water had a chlorine smell or taste (5 respondents)
- Lack of flouride in the water (4 respondents)
- Water was of poor colour or contained sediment (1 respondent)
- Water was felt to be of poor quality (1 respondent)
- Water rusted the respondent's cutlery (1 respondent)

There was a decline in the percentage of neutral responses from 15.5% in 2003 to 14.0% in 2004. This was partially offset by 0.3% of respondents not knowing or unable to give a response. The don't know option was not included in the 2003 survey.

8.0 Customer Service Charter

The 2004 Aqwest Customer Survey did not quantify responses regarding the Customer Service Charter or Aqwest's according behavior, at the request of Aqwest.

#### 9.0 Communications

| Q 25. Are you aware that Aqwest distribits customers, three times a year? | butes a community newsletter | , called On Tap, to all o |
|---|------------------------------|---------------------------|
| 0   |                              | Base: All respondents     |
| Responses   | Total<br>2004                | Total<br>2003             |
| /1) V   | 350<br>(100%)                | 362<br>(100%)             |
| (1)-Yes   | 25 i<br>(71.7%)              | 265<br>(73.2%)            |
| (2) No  | 99<br>(28.3%)                | 97<br>(26.8%)             |
| Total   | 350<br>(100%)                | 362<br>(100%)             |

There was a decrease in the percentage of respondents aware of the On Tap newsletter in 2004 by 1.5%.

| 9 200 200 200              | e: Respondents that answe | red yes to duestion |
|----------------------------|---------------------------|---------------------|
| Responses                  | Total                     | Total               |
|                            | 2004                      | 2003                |
|                            | 251                       | 265                 |
|                            | (100%)                    | (100%)              |
| (I) Very Informative       | 72                        | 96                  |
|                            | (28.7%)                   | (36.2%)             |
| (2) Informative            | 87                        | 85                  |
| (2)                        | (34.7%)                   | (32.1%)             |
| (3) Neutral                | 46                        | 74                  |
|                            | (18.3%)                   | (27.9%)             |
| (4) Not Informative        | 5                         | 5                   |
| /PVN1                      | (2.0%)                    | (1.9%)              |
| (5) Not At All Informative | 3                         | 5                   |
| (A) D                      | (1.2%)                    | (1.9%)              |
| (6) Don't know             | 38                        | N/A                 |
|                            | (15.1%)                   |                     |
| Mean                       | 2.58                      | 2.01                |

There was a fall in the percentage of respondents that rated the information within the On Tap newsletter as very informative from 36.2% in 2003 to 28.7% in 2004 however the percentage

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of respondents who agreed with this statement increased from 32.1% in 2003 to 34.7% in 2004. Overall agreement with this statement fell from 68.3% in 2003 to 63.4% in 2004.

There was a slight decline in the number of respondents who found the newsletter not informative or not at all informative from 3.8% in 2003 to 3.2% in 2004. The reasons cited for these responses were as follows:

- Respondent not interested (3 respondents)
- Finds the newsletter to be irrelevant to the community (1 respondents)
- Addresses problems rather than solutions (1 respondent)
- Don't know (I respondent)

15.1% of respondents indicated that they did not know or could not rate the information contained within On Tap newsletter. It is assumed that many of these respondents would have previously selected the neutral option in 2003 as don't know was not offered as a response. The percentage of respondents that indicated neutral in 2004 was 18.3% a fall from 27.9% in the previous year.

Q27. What information would you like to see contained in the On Tap newsletter? (Open ended question)

This open ended question was asked to all of the respondents who were aware of the newsletter. Some of the significant responses were as follows (a full list of responses can be seen in appendix I)

- Nothing extra 57.7% (202 respondents)
- Don't know 5.7% (20 respondents)
- Information about supply interruptions 1.1% (4 respondents)
- Water conservation information 4.3% (15 respondents)
- Analysis of water chemical content 4.9% (17 respondents)
- Planning for the future 2.6% (9 respondents)
- Changes and improvements to water quality 2.3% (8 respondents)
- Price and rates changes and information 0.9% (3 respondents)

#### 10.0 Demographics

| Responses  |                | Base: All respondents  |
|------------|----------------|------------------------|
|            | Total<br>2004  | Total<br>2003          |
| (1) M.L.   | 350<br>(100%)  | 362<br>(100%)          |
| (1) Male   | 139<br>(39.7%) | 143<br>(39.5%)         |
| (2) Female | 211 (60.3%)    | 213<br>(58.8%)         |
| Missing    | (0.0%)         | (36.6%)<br>6<br>(1.6%) |
| Total      | 350<br>(100%)  | 362<br>(100%)          |

### 11.0 Conclusions and Recommendations

The overall 2004 Aqwest customer survey results have shown mixed results with improvements in some areas and declines in other areas. Unfortunately Aqwest did not meet any of its KPI targets. Following is a comparison table outlining the KPI's, the target and the actual result achieved in the 2004 customer survey. Directly following that is a table outlining the 2003 performance results.

Whilst overall satisfaction with tap water services has remained constant, the overall satisfaction rating for Aqwest has declined.

There has been some improvement in 2004, in that there were less respondents experiencing problems and interruptions to their water service. Additionally respondents generally found water safer to drink and of a more acceptable quality in 2004 compared to 2003. The 2004 results also indicated that more respondents felt that Aqwest was better informing the public of its services, than in 2003.

On the other hand, 2004 results indicated that more respondents felt that Aqwest was not charging fairly for its services and that it is not planning effectively for the future.

2004 performance

| KPI<br>Overall and find                       | Target | Result | Variance |
|---|--------|--------|----------|
| Overall satisfaction with Aqwest              | >85%   | 80.6%  | -4.4%    |
| Overall satisfaction with tap water services  | >85%   | 81.4%  | -3.0%    |
| Customer contact (no problem with service)    | >85%   | 84%    | -1%      |
| No interruption to water service              | >85%   | 69.1%  |          |
| Water safe to drink                           | >85%   |        | -15.9%   |
| Water supplies are of an acceptable quality   |        | 84.3%  | -0.7%    |
| Aqwest charges fairly for its services        | >85%   | 75.4%  | -9.6%    |
| Aqwest informs the public about its services  | >85%   | 68.0%  | -17.0%   |
| Adwest is planning offersively for all for    | >85%   | 79.14% | -5.86%   |
| Aqwest is planning effectively for the future | >85%   | 52.5%  | -32.5.1% |

#### 2003 performance

| KPI   | Target | Result | Variance |
|---|--------|--------|----------|
| Overall satisfaction with Aqwest              | >85%   | 82.6%  | -2.4%    |
| Overall satisfaction with tap water services  | >85%   | 82.0%  | -3.0%    |
| Customer contact (no problem with service)    | >85%   | 82.3%  | -2.7%    |
| No interruption to water service              | >85%   | 63.8%  | -21.2%   |
| Water safe to drink                           | >85%   | 81.2%  | -3.8%    |
| Water supplies are of an acceptable quality   | >85%   | 73.7%  | -11.3%   |
| Aqwest charges fairly for its services        | >85%   | 69.3%  | -15.7%   |
| Aqwest informs the public about its services  | >85%   | 70.72% | -14.28%  |
| Aqwest is planning effectively for the future | >85%   | 54.9%  | -30.1%   |

These key performance indicators are effectiveness indicators that have been set to provide a measure of Aqwest's ability to provide sustainable, high quality water services at a minimum long term cost.

The Corporate Plan sets a customer satisfaction of 85%, the target for the KPI measures and while Aqwest did not achieve this target in 2004, the company is still achieving consistently high levels of customer satisfaction across all measures.

The KPI's are indicating that customer satisfaction with the agency is falling and it is essential that Aqwest takes action to halt the decline in customer satisfaction, while levels are still relatively high.

It is recommended that a public education campaign is developed, to provide the public with more information on water quality and additives, water charges, water conservation and sustainability and the future of water services in Western Australia.

Water quality, price and interruptions are the three key areas where Aqwest is performing its worst against its KPI's. These three areas were key areas also in 2003.

Respondents in 2004 seemed more aware of water conservation and as such the survey recorded significant increases in the percentage of respondents that would like Aqwest to improve on its resource management, water conservation and environmental responsibility. Additionally there was an increase in respondents in 2004 who felt that Aqwest needed to improve the water quality provided to residents.

Only 68.8% of respondents agreed that Aqwest was managing water resources well for the long term benefit of the community and interestingly 30.7% of respondents did not know enough to give a positive or negative response. Additionally only 52.5% of respondents indicated they agreed that Aqwest was planning effectively for the future and 28.6% of respondents indicated that they did not know. This highlights a need to increase the level of information provided to rate payers and residents about Aqwest's conservation and future planning measures and activities.

10.0% of respondents disagreed that Aqwest supplies water of an acceptable quality. Of all of the statements tested for respondent agreement, this statement received the highest level of disagreement. Respondents who disagreed indicated a small range of common problems

including bad smell, bad taste, poor colour and a high level of chlorine related smell and taste issues. These responses have remained at the same percentage as that received in 2003.

Another alarming statistic was the number of customers who were unaware that Aqwest distributes a community newsletter. Even though it is included with the bill that they receive, more than a quarter of respondents were still unaware of the newsletter.

The newsletter is also an important communication tool for Aqwest and at a time where customers are requesting more information it is important that it is used to its best effect. Techniques such as referencing the newsletter on the account may increase readership, i.e. "Would you like to reduce your water bill? See the latest edition of the On Tap newsletter, enclosed with this account."

The newsletter also lacks a consistent appearance. By establishing a format and applying Aqwest corporate colours and standards the newsletter may be more recognizable to customers, therefore increasing the recall and possibly the readership of the publication.

With satisfaction levels declining, low levels of promotional and communication recall and customers requesting more information, it is important that Aqwest takes action to stop the continuation of this trend and ensure that all Aqwest communications channels are utilized to their maximum efficiency.

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**APPENDIX** 99.96% 95.2% 99 78% Result Result Result Resull Target: < 20 2 Target: % of leaks or bursts per 100 km of customers receiving ocelving. 1 angust. 1354 > 20% Connections (km) (ma) 301.91 Connections 1357 Number of reports for Number of Total reports for Length of Totals 28 reports for S 109 601 흽 Total year year Sept Pressure and flow Pressure and flow Pressure and flow fault reports for fault reports for 105 Leaks and Bursts for September 105 No. of Confirmed No. of Confirmed Interruptions > 1 hour for Seplember September August Leaks and Bursts 122 122 No. of Confirmed No. of Confirmed Interruptions > 1 hour for August for August August 칅 100 No. of Confirmed No. of Confirmed Leaks and Burats 100 interruptions > 1 hour for July !!... or July No. of Confirmed Pressure and flow fault reports for 96 No. of Confirmed Leaks and Bursts Interruptions > 1 anni for June for June May No. of Confirmed Pressure and llow fault reports No. of Confirmed Interruptions > 1 hour for May Leaks and Bursts 132 132 for May for May Apill No. of Confirmed

Pressure and flow
fault reports for Leoks and Bursis No. of Confirmed Interruptions > 1 hour for April for April March Note: When non compilant samples or analyses found provide detaits of non compilance and action taken to reciliy the problem Pressure and flow I fault reports for I March No. of Confirmed No. of Confirmed Leaks and Bursts Interruptions > 1 hour for March for March February 137 Pressure and flow fault reports for Interrupilans > 1 hour for February Leaks and Bursts No. of Confirmed No. of Confirmed for February na Compliant 100% Compliant na Compliant February January Resutt Included in above results ō 9 Pressure and flow fault reports for No. of Confirmed Leaks and Bursts No. of Confirmed Interruptions > 1 hour for January within guideline for January December January Values Ē Leaks and Bursts for December 123 Pressure and Row No. of Confirmed 12 Vo. of Confirmed nterruptions > 1 aull reports for No. of samples December Jecember November hour for Talaphona answaring - emergency response Non-Health Related Standards water quality Water Supply Services - Drought Response lau. 98 90 Waler Supply Service pressure and flow Water Supply Service Leaks and Bursts reports for November internaplions > 1 hour Restrictions by operating area, type (severity) durellon, start date, number of Leaks and Bursis for Pressure and flow Water Supply Service Interruptions No, of Confirmed No. of Confirmed for November November October Non-health related qualify Leaks and Burals for October Pressure and flow fault reports for No. of Confirmed No. of Confirmed one hour No. of cells receiving a response within ons hour Interruptions > 1 hour for October requiring a response within Month No. of calls

1 July 1999 to 30 September 1999 Licensee: Aqwest Service: Water Supply

Paul Bendotti Submitted by:

Health Standards: Microbiological quality

100.0%

Samples free of colloring and

прера

vo. of samples

**8 8 2** 

within guideline

values

No. of semples

featth Standards: Chemical quality

nemical - health related nemical - non health related

Chemical Quality

Amoeba (Thermophilic Neegleds)

Total Colforns
Thermololerani Colforns

Microbiological Quality

Number of Connections Residentlat: Number of Connections Total:

1st Quarter Report

2nd Quarter Report Licensee: Aqwest

Service: Water Supply Period;

1 October 1999 to 31 December 1999 10599 Paul Bendotti Number of Connections Total: Number of Connections Residential: Submitted by:

Health Standards: Microbiological quality

| Microbiological Quality No. of samples | collioms and amodes | Tamel | Result |
|--|---------------------|-------|--------|
| Total Coliforms                        | 51 51               | 8     | 100%   |
| Themololerant Colligins                | 51 51               | 86    | 100%   |
| Amoebs (Thermophilic Neegleds)         | 51 51               | 82    | 100%   |

Health Standards: Chemical quality

| Chemical Quality              | No. of samples | Within guideline<br>Values |
|-------------------------------|----------------|----------------------------|
| Chemical - health related     | 160            | 100% Compliant             |
| Chemical - non health related | 348            | 100% Compilant             |
| Redicional                    | 10             | 100% Campliant             |

Note: When non compilant sumples or analyses found provide details of non compilance and action taken to recilify the protein

Non-Health Related Standards water quality

| ±                                      | No. of samples   | within guldeline<br>values | Result  |          |
|--|------------------|----------------------------|---|----------|
| Non-health related quality             |                  | Included in above          |   |          |
| Water Supply Service pressure and flow |                  |                            |   |          |
| No. of Confirmed                       | No. of Conflimed | No. of Confirmed           | No. of Confirmed No. of Confirmed No. of Confirmed No. of C | No. of C |

No. of Confused Pressure and flow Hisuli reports for Pressure and flow fault reports for May Pressure and flow No. of Confirmed Prussure and flow Pressure and flow fault reports for Pressure and flow fault reports for April March reports for February January

| Water Supply Set                | Water Supply Service Interruntions   |                               |  |                   |                   |                   |
|---------------------------------|--|-------------------------------|--|-------------------|-------------------|-------------------|
|                                 |  |                               |  |                   |                   |                   |
| No. of Confirmed                | to, of Confirmed No. of Confirmed  | No. of Confirmed              | No. of Confirmed | No. of Confirmed  | No. of Confirmed  | No. of Confirmed  |
| Interruptions > 1               | terruptions > 1 Interruptions > 1 Aour Interruptions > 1 Interruptions > 1 Interruptions > 1 Interruptions > 1 | Interrupillons > 1            | Interruptions > 1  | Interrupilons > 1 | Interruptions > 1 | Interruptions > 1 |
| hour for January   for February | for February   | hour for March hour for April |  | hour for May      | hour for June     | hour for July     |
| 115                             | 29   | 30                            | 20   | 41                | 87                | 39                |

%86°66 Result

standard >89.8

Connections 12597

Targel: % of customers receiving

Connections standard 12597

lyear 750

reports for Number of

Tatai

No. of Canilmed Interruptions > 1 hour for

No. of Contirmed Interruptions > 1 Interruptions

No. of Confirmed No. of Confirmed No. of Confirmed Interruption | Interruptions > 1 Interruption Int

Target: % of customers

ecelving

service

reports for Number of

Total year

Pressure and flow

fault reports for December

fault reports for November

faull reports for

Jessure and flow

fault reports for September

Pressure and flow fault reports for August

No. of Confirmed Pressure and flow Figure reports for all

No. of Confirmed No. of Confirmed

No. of Confirmed No. of Confirmed No. of Confirmed Pressure and flow

Most Recent Quarte

₹ Water Supply Services - Drought Response Resirictions by operating area, tyne (severtty) duration, start date, number of services affected Water Supply Service Leaks and Bursts

Target: < 20 leaks or

|                                 |  |                               |  |   |                              |                              |                                |                                   |  |                                  |                                  | 1             |            | 2 2 2     |       |
|---------------------------------|--|-------------------------------|--|---|------------------------------|------------------------------|--------------------------------|-----------------------------------|--|----------------------------------|----------------------------------|---------------|------------|-----------|-------|
| Leaks and Bursts<br>for January | eaks and Bursts Leaks and Bursts for or January February | Leaks and Bursts<br>for March | Leaks and Bursts Leaks and Bursts<br>for March | Leaks and Bursts Leake and Bursts Leaks at<br>for May for June for July | Leaks and Bursts<br>for June | Leaks and Bursts<br>for July | Leaks and Bursls<br>for August | Leaks and Bursts<br>for September | and Bursts Leaks and Bursts reports for Length of for Notiber for Notiber for Notiber for December for Dec | Leaks and Bursts<br>for November | Leaks and Burata<br>for December | reports for L |            | too km of | 11.00 |
| ď                               | •  |                               |  | 5   | -:                           |                              |                                |                                   |  | 71                               | 6                                | 02            | 303.369    | 420       | ו רכ  |
| Telephone answe                 | Telephone answering - emergoncy response                 | inse                          |  |   |                              |                              |                                |                                   |  |                                  |                                  |               |            |           |       |
| Month                           | January  | Febraury                      | March  | April   | May                          | June                         | VIDE                           | August                            | September  | October                          | November                         | Г             | Totals     | Target.   | 1     |
| No. of calls                    |  |                               |  |   |                              |                              |                                |                                   |  | -                                |                                  | Ι             |            | T         |       |
| requiring a                     |  |                               |  |   |                              |                              |                                |                                   |  |                                  |                                  |               |            |           |       |
| response within                 |  |                               |  |   |                              |                              |                                |                                   |  |                                  |                                  |               |            |           |       |
| one hour                        | 137  | 114                           | =======================================        | 132   | 96                           | 100                          | 122                            | 105                               | 109  | 142                              | 150                              | 150           | CHAI       |           |       |
| No. of cells                    |  |                               |  |   |                              |                              |                                |                                   |  |                                  |                                  |               | 1          |           |       |
| receiving a                     |  |                               |  |   |                              |                              |                                |                                   |  |                                  |                                  |               |            |           |       |
| response within                 |  |                               |  |   |                              |                              |                                |                                   |  |                                  |                                  |               |            | •         |       |
| one hour .                      | 137  |                               | 116  | 5 132   | 88                           | 100                          | 122                            | 105                               | 109  | 147                              | 150                              | 1.50          | VIDOS CONT | 25        |       |
|                                 |  |                               |  |   |                              |                              |                                |                                   |  |                                  |                                  |               |            |           |       |

| ard Quaner Repon             |     |
|------------------------------|-----|
| Licensee: Aqwest             |     |
| Service: Water Supply        |     |
| Perlod;                      |     |
| Number of Connections Total: | 128 |
|                              |     |

1 January 2000 to 31 March 2000 12878 10876 Paul Bendotti Health Standards: Microbiological quality Number of Connections Residential: Submitted by:

|                                    |                       | 0 00 11 00 11 100 |                |        |
|------------------------------------|-----------------------|-------------------|----------------|--------|
|                                    |                       | colforms and      |                |        |
| Microbiological Cuality            | No. of samples amoeba | amoeba            | Target         | Result |
| Total Collforms                    | 51                    | 61                | Od             |        |
| Thermotolerant Coliforns           | 51                    | 19                | 98             |        |
| Amoeba (Thermophilic Neepleda)     | 51                    | 51                | 90             |        |
| Health Standards: Chemical quality |                       |                   |                |        |
|                                    |                       | within guideline  |                |        |
| Chemical Quality                   | No. of samples        | values            | Result         |        |
| Chemical - health releted          | 0                     | D EU              | Compllant      |        |
| Chemical - non health related      | 901                   | 99.5%             | 89.5% Complant |        |
| Radiological                       | 0                     | EU                | na Comotiant   |        |

Note: When non compliant samples or analyses found provide details of non compliance and action taken to recilly the problem

|  |                  | Result         | olis                       |
|--|------------------|----------------|----------------------------|
|  | within guldeline | values         | included in above res      |
| Å  |                  | No. of samples |                            |
| Non-Health Related Standards water quality |                  |                | Non-health related quality |

|  |                  | firmed<br>nd flow<br>s for<br>fo   | - |
|--|------------------|--|---|
|  | ja.              | No. of Con<br>Pressure a<br>fault report<br>March  |   |
| Most Boront Dungar                     | WOSI WELCIN GUAR | ned No. of Confirmati<br>flow Pressure and flow<br>fault reports for<br>February   | • |
|  |                  | t No. of Canfirmed w Prossure and flow fault reports for January.  | _ |
|  | 1774             | No. of Confirmed<br>Pressure and flow<br>fault reports for<br>December   | = |
| N. Sanita                              |                  | No. of Confirmed No. of Confi<br>Prussure and flow Prussure ar<br>fault reports for fault reports<br>November December   | = |
|  |                  | No. of Confirmed<br>Pressure and flow<br>fruit reports for<br>October  | 5 |
|  |                  | No. of Confirmed<br>Pressure and flow<br>fault reports for<br>September  | 5 |
|  |                  | and flow   | 5 |
|  |                  | d flow<br>for July   | 2 |
|  |                  | No. of Confirmed<br>Pressure and flow<br>Fault reports for<br>Juna   | , |
| Valer Supply Service pressure and flow |                  | ressure and flow No. of Continued Pressure and flow No. of Continued Pressure and flow No. of Continued Pressure and flow I of Continued I feel reports for Pressure and flow I feel reports for May I and Reports for May I |   |
| Waler Supply Ser                       |                  | No. of Confirmed<br>Pressure and flow<br>fault reports for<br>April  |   |

|                                    | of<br>Pass   |  |
|------------------------------------|--|--|
|                                    | Targat: % of customers receiving service standard F  |  |
|                                    | Target: % customer consistent of customer of customer connections standard 12678   |  |
|                                    | eports Nu  |  |
|                                    | id<br>Tatal report<br>for year<br>30   |  |
|                                    | No. of Confirms<br>Interruptions > 1<br>nour for March   |  |
|                                    | No. of Confirmed No. of Confirmed Interruptions > 1 Interruptions > 1 Proof of Party Incur for March 30  |  |
|                                    | No. of Confirmed No. of Confirmed Interruptions > 1 Interruptions  |  |
|                                    | No. of Confirmed Interruptions > 1 No. of Confirmed Interruptions > 1 Interruptions  |  |
|                                    | No. of Confirmed<br>Interruptions > 1<br>Incur for<br>November 42  |  |
|                                    | No. of Confirmed<br>Internptions > 1<br>hour for October   |  |
|                                    | No. of Conferned<br>Interruptions > 1<br>hour for<br>September   |  |
|                                    | No. of Confirmed Interruptions Interruptions > 1 Interruptions   September 14  |  |
|                                    | No. of Confirmed No. of Confirmed No. of Confirmed Interruptions > 1 Interruptions > Interruptions > 1 Interruptions > Interruptions > 1 Interruptions > Interruptions > 1 Int |  |
|                                    | No. of Confirmed<br>Inlemptions > 1<br>hour for Jung B7  |  |
| ce interruptions                   | 4 t  |  |
| Water Supply Service Interruptions | No. of Confirmed No. of Confirmed Interruptions > 1 Interruptions > 1 Interruptions > 1 hour for April May   |  |

Number of S Connections s

Total reports for year

|  | Ž  |                   |  |
|--|--|-------------------|--|
| water Supply Services - Drought Response | Restrictions by operating area, type (seventy) duration start date aumber of | services affected |  |

|                      | - | <u> </u>   | 3  |
|----------------------|---|--|----|
|                      |   | Total reports<br>for year  | 8  |
|                      |   | Leaks and Bursis<br>for March  |    |
|                      |   | Leaks and Bursts<br>for February   | 4  |
|                      |   | Leaks and Bursts<br>for January  | 9  |
|                      |   | Leaks and Bursts<br>or December  | ď  |
|                      |   | Leaks and Bursts Leaks and Bursts<br>for November for Decambor   | 71 |
|                      |   | Leaks and Bursts<br>for October  |    |
|                      |   | is and Bursta Leaks and Bursts Total reports for September for November for December for January for Manch for Manch | 3  |
|                      |   | Leaks and Burste<br>for August   |    |
|                      |   | Leaks and Bursts<br>for July   |    |
|                      |   | Leaks and Bursts Leaks and Burstr<br>for June for July   |    |
| ice Leaxs and Burgis |   | aks and Bursis Leaks and Bursis for<br>April May 5   |    |
| water supply ser     |   | Leaks and Burals<br>for April  |    |

| Parity and James Tolling Tolling Tolling Tolling |  |      |      |       |        |   |          |          |          | ,       |     |          |       |        |                     |         |
|--|--|------|------|-------|--------|---|----------|----------|----------|---------|-----|----------|-------|--------|---------------------|---------|
| ullho  | April  | rday | aunr | viut. | Aicial | Contombor                               | 204      |          |          |         | -   |          |       |        |                     |         |
| o. of calls                                      |  |      |      |       | 100    | and | (Single) | November | December | January | P.  | February | March | Totals | Taroat: >90% Rawitt | Ranii   |
| raquiring a                                      | Water State of the |      |      |       |        |   |          |          |          |         |     |          |       |        |                     |         |
| sponse within                                    |  |      |      |       |        |   |          |          |          |         | _   | _        |       |        | •                   |         |
| ne hour  | 132  | 2    | 10   | 12    | 22     |   | -        |          |          |         |     |          | _     |        |                     |         |
| a. of calls                                      |  |      |      |       |        |   | 7,70     | nc) 74   |          | 150     | 105 | 134      | 147   | 1501   | _                   |         |
| Skyling a  |  |      |      |       |        |   |          |          |          |         |     |          |       |        |                     |         |
| infilm care                                      |  |      |      |       |        |   |          |          | -        |         |     |          |       | _      | -                   |         |
| ne frour   | 132  | 6    | 100  | 122   | 105    |   |          | 142      |          |         | - 5 | !        |       |        | _                   |         |
|  |  |      |      |       |        |   |          |          |          | 20      | 200 |          | 147   | 1021   | 1401/LASE           | ******* |

4th Quarter Report Licensee: Aqwest

Service: Water Supply

1 April 2000 to 30 June 2000 12737 10728 Paul Bendotti Number of Connections Total: Number of Connections Residential: Submitted by:

Health Standards: Microbiological quality

| I Quality         | of samples | colforms and amoeba | Targel Targel Res | ili . |
|-------------------|------------|---------------------|-------------------|-------|
|                   | 49         | 49                  | 8                 | %001  |
| liforms           | 49         | 49                  | SB                | 100%  |
| shilic Naegleria) | 49         | 67                  | 92                | 100%  |

within guideline values No. of aamples Health Standards: Chemical quality nemical Quality nemical - health related nemical ∓non health related Note: When non comptiant samples or analyses found provide details of non compliance and action taken to recitly the problem

Non-Health Related Standards water quality

|    |  |  | No. of samples values  |                           | Result   |   |   |   |
|----|--|--|--|---------------------------|--|---|---|---|
|    | Non-health related quality   | qualily  | -  | Included in above results | ılts   |   |   |   |
|    | Waler Supply Serv  | Water Supply Service pressure and flow   |  |                           |  |   |   |   |
|    | No. of Confirmed Pressure and flow No. of Confirmed fault reports for reports for August | No. of Confirmed No. of Confirmed Pressure and flow Pressure and flow Pressure and flow fault reports for reports for August Spelt | No. of Confirmed<br>Pressure and flow<br>fault reports for<br>Sept |                           | No. of Confirmed<br>Pressure and flow<br>fault reports for<br>November | No. of Confirmed No. of Confirmed Pressure and fow Pressure and fow feult reports for feult reports for Jan | Nu. of Confirmed<br>Pressure and flow<br>fault reports for<br>Jan |   |
| ٠. |  | 0  | 0  | ō                         | 0  | 0   |   | - |

100%

Connections 12737

reports for Number of

Tolai

No. of Confirmed No. of Confirmed Pressure and flow fresture and flow fault reports for fault reports for

No. of Confirmed Pressure and flow F fault reports for

No. of Confirmed Pressure and flow fault reports for

April

March

Pressure and flow fault reports fr No. of Confirmed

Work Most Recent Quarter

auni T

Targel: % of customers. receiving standard Service

Result

Connections s

=

hour for Jun

reports for Number of year Connections 673

Target: % of customers receiving service standard

Total

No. of Confirmed Interruptions > 1

No. of Confirmed Interruptions > 1 hour for May

No. of Confirmed | Interruptions > 1 | Interru

No. of Confirmed No. of Confirmed Interruptions > 1 Interruptions > 1 hour for Feb hour for Mar

No. of Confirmed Interrupitons > 1 hour for Jan

No. of Confirmed Internations > 1 hour far Dec

No. of Confirmed Interruptions > 1 hour for Nov

No. of Confirmed Interruptions > 1 hour for Oct No. of Confirmed Intermptions > 1 Intermptions > 1 Intermptions > 1 Intermptions > 1 Intermptions Intermption Intermptions Intermptions Intermptions Intermptions Intermption Intermpt No. of Confirmed Interruptions > 1 hour for August interruptions > 1 hour for July No. of Confirmed

Water Supply Service Interruptions

Water Supply Services - Drought Response Restrictions by operating area, type (severity) duration, start date, number of services affected

₹

Water Supply Service Leaks and Bursts

| Leaks and Bursts Leaks  |              |          |           |                 |                  |                  |                  |                    |                  | -                |                  |                  |                      |            | Target: < 20 leaks or   |      |
|--|--------------|----------|-----------|-----------------|------------------|------------------|------------------|--------------------|------------------|------------------|------------------|------------------|----------------------|------------|-------------------------|------|
| Sept.   Sept   | and Bursts f |          | Bursts Lt | eaks and Bursts | Leaks and Bursts | Leaks and Bursts | Leaks and Bursts | Leaks and Bursts 1 | Leaks and Bursts | Leaks and Bursts | Leaks and Bursts | Leaks and Bursts | Total<br>reports for | Lenath of  | bursts per<br>100 km of |      |
| 14   15   150      | 15           | for Sept | 2         | ar October      | for November     | for Dec          | for Jan          | for Feb            | for March        | for April        | for May          | for June         | year                 | mains (km) | ;                       | tose |
| Sapt   October   November   Dec   Jan   Feb   March   April   May   June   Totals   190%   Result  |              | 13       | <u>-</u>  |                 | 1,               | 2                | 2                | *                  | 2                | 2                | 4                | B                | 99                   | 306.287    | 8                       | 22.2 |
| August         Sept         October         November         Dec         Jan         Feb         March         April         May         June         Totals         190%         Result           105         105         150         150         150         150         150         116         150         150         116         150 </th <th>- umergency</th> <th>response</th> <th></th>   | - umergency  | response |           |                 |                  |                  |                  |                    |                  |                  |                  |                  |                      |            |                         |      |
| 105 109 142 150 159 105 134 147 85 187 116 158 1171 159 1189 1189 1189 1189 1189 1189 1189   |              | August   | ŭ         | apt             | October          | November         | Dac              |                    |                  |                  | Andi             | 77               | -                    |            | Γ                       |      |
| 105 109 142 150 159 105 134 147 85 186 1561 1561 1561 1561 1561 1661 1561 16 |              |          | -         |                 |                  |                  |                  |                    |                  |                  |                  | , may            | 2010                 |            | Ī                       |      |
| 105 109 142 150 159 105 134 147 85 187 116 1561 1161 1561 1161 1561 1161 1561 1161 1561 1161 1561 1161 1561 1161 1561 1161 1561 1161 1561 1161 1561 116 |              |          |           |                 |                  |                  |                  |                    | •                |                  |                  |                  |                      |            |                         |      |
| 105 109 142 150 159 105 134 147 85 187 116 1561 1561 1561 1561 1561 1561 1561  |              |          |           |                 |                  |                  |                  |                    |                  |                  |                  |                  |                      |            | :                       | _    |
| 100 100 1100 1100 1100 1100 1100 1100  |              | 122      | 105       | 201             | •                |                  |                  | •                  | 134              | 147              | ď                |                  | -                    | •          |                         | _    |
| 100 142 150 150 1150 1150 1150 1150 1150 1150  |              |          |           |                 |                  |                  |                  |                    |                  |                  | 3                |                  |                      |            | 1.1                     |      |
| 100 100 150 150 150 150 150 150 150 150  |              |          |           |                 |                  | -                |                  |                    |                  |                  |                  |                  |                      |            |                         |      |
| 100 100 150 150 150 150 150 150 150 150  |              |          |           |                 |                  |                  | _                |                    |                  |                  |                  |                  |                      |            |                         | _    |
|  |              | 122      | 105       | 30 <b>1</b>     |                  |                  | 159              |                    | 7.               |                  | 5                |                  | -                    |            |                         |      |

100%

16

197

## Licensee: Aqwest

Service: Water Supply

Period:

Number of Connections Total:

Number of Connections Residential:

1 July 1999 to 31 December 1999

12597 10599

**Customer Complaints** 

| Number of written complaints due for resolution in the previous six | Number of written complaints successfully resolved within 21 days | Target: 90 % of | you are a report to be properly and a properly of a later to the later |
|---|---|-----------------|--|
| 0   | 0   | >90%            | 100%   |

#### **Customer Complaint Data**

All Complaints

Complaints during the preceding six month period in the following categories

| Water Quality                  | 169 |
|--------------------------------|-----|
| Water Continuity interruptions | 0   |
| Pressure or Flow               | 38  |
| Accounts                       | 0   |
| Other                          | 0   |

Complaint Resolution: of those complaints resolved in the preceding six months

| Resolved by simple explanation | 0   |
|--------------------------------|-----|
| Resolved by an apology by the  |     |
| licensee                       | 0   |
| Resolved by mediation or the   |     |
| involvement of an independent  |     |
| third party                    | · 0 |
| Resolved by monetary           |     |
| compensation                   | 0   |
| Resolved by routine business   |     |
| processes                      | 207 |
| Resolved by other means        | 0   |

| Total number of written complaints | o |
|------------------------------------|---|
| Number of written complaints       |   |
| resolved within 21 days            | o |
| Number of written complaints       |   |
| resolved in greater than 21 days   | 0 |



Licensee: Aqwest

Service: Water Supply

Period:

Number of Connections Total:

Number of Connections Residential:

1 January 2000 to 30 June 2000

12737

10728

**Customer Complaints** 

| Number of written complaints due for resolution in the previous six | Number of written  complaints Target: 90 % of successfully resolved within 21 days the service standard | tarana and an analysis and an a |
|---|---|---|
|   | 1   | 100%  |

#### **Customer Complaint Data**

All Complaints

Complaints during the preceding six month period in the following categories

|                                | - F-Met in alle lon |
|--------------------------------|---------------------|
| Water Quality                  | 114                 |
| Water Continuity interruptions | 0                   |
| Pressure or Flow               | 36                  |
| Accounts                       | 0                   |
| Other                          | 0                   |

Complaint Resolution: of those complaints resolved in the preceding six months

| - The state of the | reserved in the p                     |
|--|---------------------------------------|
| Resolved by simple explanation   | 0                                     |
| Resolved by an apology by the  |                                       |
| licensee   | 0                                     |
| Resolved by mediation or the   | · · · · · · · · · · · · · · · · · · · |
| involvement of an independent  |                                       |
| third party  | o                                     |
| Resolved by monetary   |                                       |
| compensation   | 2                                     |
| Resolved by routine business   |                                       |
| processes  | 148                                   |
| Resolved by other means  | 0                                     |

| Total number of written complaints | 1 |
|------------------------------------|---|
| Number of written complaints       |   |
| resolved within 21 days            | 1 |
| Number of written complaints       |   |
| resolved in greater than 21 days   | o |

# Annual Report Licensee: Aqwest

Service: Water Supply Period: Number of Connections Total: Number of Connections Residential:

もありている回覧

<del>1 January</del> 2000 **to:30 June**:2000ക 12737 10728

Services Provided By Agreement

|                             | Number of services provided 90 per cent of customers | 90 per cent of customers |        |
|-----------------------------|--|--------------------------|--------|
| Number of services provided | by agreement with                                    | have documented          |        |
| by agreement                | documented agreements                                | agreements               | Result |
| 0                           | 0  | %06<                     | 100%   |

Ist Quarter Report Licensee: Aqwest Service: Water Supply

1 July 2000 to 30 September 2000 12810 10793 Number of Connections Total: Number of Connections Residential: Submitted by: Parlod:

Health Standards: Microbiological quality

888 Target Samples free of collforms and втоера ### No. of samples

100% Compliance Compliance Result 2 within guideline values 125 No. of samples Health Standards: Chemical quality

Note: When non compitant samples or analyses found provide details of non compliance and action taken to rectify the publicin

Non-Health Related Standards water quality

| the state of the land of the state of the st |                     |                       |   |                                       |                   |   |
|--|---------------------|-----------------------|---|---------------------------------------|-------------------|---|
|  |                     | Mo. of samples vatues | uideilne  | Result                                |                   |   |
| Non-health related quality   |                     | ul                    | Included in above resuits   | Slår                                  |                   |   |
| Water Supply Sorvice pressure and flow   | ressure and flow    |                       |   |                                       |                   |   |
|  |                     |                       |   |                                       |                   | ┖ |
| No. of Confirmed   |                     | No. of Confirmed      | No. of Cardinned No. of Cardinned No. of Cardinned No. of Cardinned N   | No. of Confirmed                      | No. of Confirmed  | 4 |
| Pressure and flow No. of Confinmed   | # Confirmed         | Pressure and flaw     | Pressure and flow Pressure and flow Pressure and flow Pressure and flow | Pressure and flow                     | Pressure and llow | _ |
| <br>fault reports for a Pressure and flow fault fault reports for   fault reports for  | sure and flow fault | fault reports for     | rts for   | fault reports for a fault reports for | fault reports for | = |
| October 1 Control Dangerhor Dangerhor  | de for blancombos   | Contraction           |   | Cohmon.                               | Lancer            | ٠ |

Pressure and flow fault reports for May Pressure and flow I fault reports for I April Water Supply Service Interruptions

No. of Confirmed Interniplions > 1 iour for January No. of Confirmed Interruptions > 1 hour for December Interruptions > 1 in Interruptions > 1 hour nour for October 3: for November No, of Confirmed No. of Confirmed

Result 95.0%

Result 100.00%

866

Connections standard

Target: % of

customers

receiving standard

Total

No, of Confirmed Interruptions > 1 hour for

No, of Confirmed

Interruptions > 1 hour for August

No. of Confirmed Interruptions > 1

Interruptions > 1 hour for June

Interruptions > 1 hour for May No. of Confirmed

No. of Confirmed

No. of Confirmed Interruptions > 1 hour for April

No. of Confirmed Interruptions > 1 hour for March

No. of Confirmed

Interruptions > 1 | Interruptions > 1 | Interruptions | Interr

service

reports for Number of 5/ year Connections of 6/

September

Targel: % of customers

receiving

Service

reports for Number of

Pressure and flow fault reports for

No. of Confirmed

No. of Confirmed Pressure and flow fault reports for

No. at Confirmed Pressure and flow fault reports for

No. of Confirmed

No. of Confirmed

No. of Conturned

Pressure and flow fault reports for

year 믕

Seplember

August

Water Supply Services - Drought Responso Restrictions by operating area, type (eeventy) dignallon (slart date, number of

₹

Water Supply Service Loaks and Bursts

Result Result <20 fargel; < 20 bursis per 100 km of eaks or 290% 553 Total reports for Length of Sept | Totals 108 Leaks and Bursis for September 5 August Leaks and Bursis | Leaks and Bursts for August 를 for July June 10/ eaks and Bursts Leaks and Bursts for June May or May April = Leaks and Bursts for April March Leaks and Bursts 134 for March February 105 Leaks and Burets for February January 3 Leaks and Bursts for January December Leaks and Bursts 35 for December November Felephone answering - emergency responso Ξ Leaks and Bursts for Honth St. Letters October November No of calls the eaks and Bursts for October lo, of calls

100.00%

553

109

105

Ξ

187

铝

÷

Ę

105

59

150

142

1

2nd Quarter Report

Licensee: Aqwest Service: Water Supply

Number of Connections Total: Number of Connections Residential: Submitted by:

1 October 2000 to 31 December 2000

P. McCLEERY

| ***                                       | Tangel   | 06 * 115 *                           | 100 100 100 100 100 100 100 100 100 100 |                                 |  |
|---|--|--------------------------------------|---|---------------------------------|--|
|   | Samples free of colloms and colloms and amoses | 49 49                                | 49 49                                   | 49 49                           |  |
| Health Standards: Microbiological quality |  | Total Coliforms and March March 1977 | Thermotolerant Collforms 7. Collins 1.  | Amoeba (Thermophilic Naegleria) |  |

Health Standards: Chemical quality

| 707.   | _   |                                    | _  |   |
|--|---|------------------------------------|--|---|
|  |   |                                    |  |   |
|  |   |                                    |  |   |
| <b>1</b>   |   |                                    |  |   |
|  | 100%  | %66                                | Г  |   |
| della  | Ŧ   |                                    |  |   |
| 를 합<br>(10명)   |   |                                    |  |   |
| <u>₹ ₹</u>   | _   | 6                                  |  |   |
| 1 1  | B1  | 349                                |  |   |
| Ē  | l   | ĺ                                  | ŀ  | l |
| J  | l   | l                                  | ļ  | l |
| No.<br>o   |   |                                    |  |   |
| No. of 8   | 10.1  | .00                                |  |   |
| Think No. of B                                       | The second second                                 | SHEET STATES                       | 1000   |   |
| HELICATION NO. OF B                                  | Shirt thinker                                     | .00                                |  |   |
| THE STATE INC. OF S                                  | aled 63 Bit of all string states                  | .00                                | 1 2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  |   |
| WELL THE WATER STEELS IN S. OF S.                    | ALT related 63 States at 12 Section               | .00                                | 日本書の記録を記録している。<br>日本書の記録を記録している。   |   |
| O SERVICE THE SERVICE INC. OF SERVICE                | L. health related 65th title at 1992 con-         | Inon health related 11 11 11 11 11 | Call in the specific and the specific an |   |
| emical Quality Plant (   Elizabeth   No. of s        | emical 2 health related 638 to be attended        | Inon health related 11 11 11 11 11 | diotocical   |   |
| Chemical Quality Restrict the first in the Inc. of s | Chemical 2 health related his highly the specific | .00                                | Radiological   |   |

Non compilance = 2 x Non health related inorganic samples (Sulphate) investigation in progress

Note; When non compilant samples or analyses found provide details of non compilance and action taken to rectify the problem

Non-Health Related Standards water quality

| According to the control of the cont |   | No. of samples    | No. of samples values | Result   | • .               |   |               |
|--|---|-------------------|-----------------------|--|-------------------|---|---------------|
| Non-hearth related quality   | quality   |                   | Included in Booye     |  |                   |   |               |
| Water Supply Sen   | Water Supply Service prossure and flow  |                   | 1                     |  |                   |   |               |
|  |   |                   |                       | -  |                   |   |               |
| No. of Confirmed   |   | No. of Canfirmed  | No. of Confirmed      | No. of Confirmed No.           | No. of Confirmed  | No. of Confirmed                          | 5             |
| Pressure and flow No. of Confirmed   | No. of Confirmed  | Pressure and flow | Pressure and flow     | Pressure and flow Pressure | Pressure and flaw | Pressure and flow                         | Se .          |
| faull reports for  | fault reports for Pressure and flow fault fault reports for fault reports for | faull reports for | fault reports for     | faull reports for  | fault reports for | fault reports for Hault reports for Now I | <u>.</u>      |
| January  | reports for February   March  | March             | April                 | May  | June              | Airi                                      | ₹<br> -<br> - |
| °  | 0   | 0                 | 0                     | 0  | 0                 | ō   |               |

Customers | Hillighton

Target: % of

DAMES C

reports for Number of

Pressure and flow 1 fault reports for 10 December 9

year

Total

No. of Confirmed

No. of Confirmed hy Pressure and flow Figure Foundation for fault reports for file

No. of Confirmed No. of Confirmed No. Pressure and flow Pressure for Its October No.

No. of Confirmed Pressure and flow fault reports for September

Pressure and flow fault reports for Augus! No. of Confirmed

Result

Resul

reports for Number of

Total

No. of Confirmed Interruptions > 1 hour for

No. of Confirmed Interrupilons > 1 hour for November

No. of Confirmed Interruptions > 1 hour for October

No. of Confirmed N Interruptions > 1 Ir Itoric for September h

December

Targel: % of ecelving

| Water Supply Ser  | Water Sunaly Service Informations |  |   |  |   |  |  |
|---|-----------------------------------|--|---|--|---|--|--|
|   |                                   |  |   |  |   |  |  |
| No. of Confirmed No. of Confirm Interruptions > 1 Interruptions > 1 February for February | ed<br>1 hour                      | No. of Confirmed No. of Confirmed Interruptions > 1 Interruptions > 1 hour for April | No. of Confirmed<br>Interruptions > 1<br>hour for April | No. of Confirmed Interruptions > 1 | No. of Confirmed No. of Confirmed Interruptions > 1 Interruptions > 1 hour for July | Na. of Confirmed<br>Interruptions > 1<br>hour for July | No. of Caniltmed<br>Interruptions > 1<br>hour for August |
| 91  | 90                                | 30   | 0   | 7.1  | 143   | <b>5</b> 0   | )r   |
|   |                                   | 111111111  |   |  |   |  |  |

ž Water Supply Services - Drought Response Restrictions by operating area, type (severity) duration, start date, number of services affected

|                                       |  | _  |                  | 16.3      |    |
|---------------------------------------|--|--|------------------|-----------|----|
|                                       | <u> </u>   |  | Resull           |           |    |
|                                       | larger: < 20<br>leaks or<br>bursts per   | Ē  | ns<br>ns         | 35        |    |
|                                       | ea i   | 3  | mains (km) mains | 6.28      |    |
|                                       |  | rengin o   | mains (k         | OC.       |    |
|                                       | 眉  | sports for   | ear              | 50        |    |
|                                       | <u>5</u>   | Bursis T   | <u>ح</u>         | v         |    |
|                                       | Lar.   | saks and   | for December     |           |    |
| ľ                                     |  | Bursts  Le   | er (o            | 3         |    |
|                                       |  | aks and E  | for November     |           |    |
| -                                     |  | al sign  | <u>,</u>         | F         |    |
|                                       |  | aks and B  | for October      |           |    |
| -                                     | <u>.</u>   | Leaks and Bursts   Leaks and Bur | ر<br><u>ة</u>    | F-3       |    |
|                                       | !  | is and Bu  | for September    |           |    |
|                                       |  | rsts Lear  | ō                | -         |    |
|                                       |  | s and Bu   | )snBn            |           |    |
| -                                     |  | is Leak  | <u>jo</u>        | _         |    |
|                                       |  | and Burs   | >                |           | !  |
| -                                     |  | s Leaks  | for Jul          | =         |    |
|                                       | Weight State of the State of th | and Burst  | ė                |           |    |
|                                       |  | Leaks  | for Jun          |           |    |
|                                       |  | d Bursls   |                  |           |    |
|                                       |  | Leaks an   | for May          |           |    |
|                                       |  | Bursts   |                  | 2         |    |
|                                       |  | Leaks and Bursts   Leaks and Bursts  | for Any          |           |    |
|                                       | · -  | Bursts IL  |                  | 1         | 1  |
|                                       |  | bas and  | or March         |           |    |
| ursts                                 |  | _  | _                | -         |    |
| 's and Bi                             |  | d Bursts 1   |                  |           |    |
| Nater Supply Service Leaks and Bursts |  | appe and Rurals   Pasks and Bursis for   | Cohol            | 2         |    |
| oply Ser                              |  | 4  |                  | 1         |    |
| Nater Su                              | etañ<br>He   | order adver  | tions of         | an Saluar | 1  |
| **                                    | <u> </u>   | _  | - 3              | =!_       | _; |

| Telephone answering - emergency response   | 0500     |       |       |     |      |      | *************************************** |           |         |                   |     |                   |        |
|--|----------|-------|-------|-----|------|------|---|-----------|---------|-------------------|-----|-------------------|--------|
| Value of the state | Febraury | March | April | May | June | July | August                                  | September | October | November 1919 Dec | .=  | otals >90%        | Result |
| No. of calls requiring a requiring a response within 105   |          | 134   | 147   | 85  | 187  |      |   | 105       |         | 72 150            | 109 | 1533              |        |
| S S S S S S S S S S S S S S S S S S S  |          |       | 147   | 85  | 1 1  | 114  | -                                       | 05 109    |         | 72 150            | 109 | 1533 > <b>80%</b> | 100%   |

## Six Monthly Report Licensee: Aqwest

Service: Water Supply

Period:

Number of Connections Total:

Number of Connections Residential:

1 July 2000 to 31 December 2000

**Customer Complaints** 

| Number of written complaints due | successfully resolved | Target: 90 % of | Result |
|----------------------------------|-----------------------|-----------------|--------|
| 1                                | 1                     | >90%            | 100%   |

#### **Customer Complaint Data**

All Complaints

Complaints during the preceding six month period in the following categories

|                                | TOT BOTTOG THE BOTTOM |
|--------------------------------|-----------------------|
| Water Quality                  | 81                    |
| Water Continuity interruptions | 0                     |
| Pressure or Flow               | 46                    |
| Accounts                       | 5                     |
| Other                          | 2                     |

Complaint Resolution: of those complaints resolved in the preceding six months

| Resolved by simple explanation | 7   |
|--------------------------------|-----|
| Resolved by an apology by the  |     |
| licensee                       | 0   |
| Resolved by mediation or the   |     |
| involvement of an independent  | * ' |
| third party                    | . 1 |
| Resolved by monetary           |     |
| compensation                   | 0   |
| Resolved by routine business   |     |
| processes                      | 126 |
| Resolved by other means        | 0   |
|                                |     |

| Total number of written complaints | 1 |
|------------------------------------|---|
| Number of written complaints       |   |
| resolved within 21 days            | 1 |
| Number of written complaints       |   |
| resolved in greater than 21 days   | o |

Result Reall Result 9.09 Haring Hill for the second with the second s larget: % of Targat: % of Tarput: < 20 Custumers bursts per 100 km of roceiving Service leaks or 60MGB Connections 12887 Number of Connections 308 20 107 Number of 1671 ength of Total reports = Total reports Total reports for year ..... for year or year No. of Confinned Interruptions > 1 hour for March Pressure and flow 124 Leaks and Bursts for March No. of Confirmed fault reports for Most Rucent Oraste rault reports for No. of Confirmed No. of Confirmed Interruptions > 1... Interruptions > 1... Interruptions > 1... Incur for Lanuary\* Prossure and flow Leaks and Burets for February 160 15B No. of Confirmed February fault reports for Pressure and flow ATT HI JEQWEOEG ₫ 80 No. of Confirmed Leaks and Burita for January апиалу No. at Continued 1 Interruptions > 1 ( Insur for December 1 3 50 Prossure and Now No. of Confirmed Leaks and Bursts fault reports for for December December November Interruptions > 1 that tart for 1 the November 1 the 1 Pressure and flow fault reports for No. of Confirmed 172 172 Leaks and Bursts No. of Confirmed for November lovember October 133 Pressure and flow Nu. of Confermed Leaks and Bursts No. of Confirmed Interruptions > 1 nour for October fault reports for for October September Note: When non compilent semplus or analysus found provide details of non compliance and action taken to recitivithe problem Ξ 105 Pressure and Bow Interruptions 2.1 | Interr No. of Confurned Leaks and Bursts No. of Confirmed fault reports for for September Saptember .... His August 00 311 190 111 111 11 100 Target (1434) | S.A. 2 Ξ Pressure and flow fault reports for Leaks and Bursts of Confirmed for August Result August included in above results 52 52 62 7001 7001 16 Pressure and flow fault reports for July Samples free of politorns and within guideline values Leaks and Bursts No. of Confirmed No. al Confirmed interruptions > 1 hour for July within guideline I January 2001 to 31 March 2001 втовра values for July 9 ₹ No. of samples 38 52 52 52 No. of samples Pressure and fluw fault reports for No. of Confirmed No. of Confirmed No. of Confirmed Interpretions 31, 11 Interpretions 21, 11 5 è 187 Leaks and Bursts CHAIN CO. No. of Confirmed Peter McCleary No. of samples for Juna ŝ Water Bupply Services - Drought Responso
Rest Comment of Services - Drought Responso
(eq. etm.) Days of the Common of services services of the Common of services services of the Common of services of the Common of services of the Common of ona answering - emergency response Non-Health Related Standards water quality 85 No, of Continued Pressure and flow fault reports for May Health Standards: Microbiological quality Water Supply Service pressure and flow Water Supply Service Leaks and Bursts Leaks and Bursts for May Number of Connections Residential: **Nater Supply Service Intercuptions** Number of Connections Total: ord Quant Report Licensee: Aqwest Non-health related quality Service: Water Bupply Health Standards: No. of Confirmed Pressure and flow fault reports for eaks and Bursts Submitted by: for April Period:

100 001

98 4%

100%

4th Quarter Report

Licensee: Aqwest Service: Water Supply

Number of Connections Total: Number of Connections Residential: Submitted by: Peter McCleery

Health Standards: Microbiological quality

Result Tarpet Result %6.66 Samples free of cotiforms and within guideline values 魯 No. of samples No. of samples Health Standards: Chemical quality Microbiological Quality
Total Colforns Tell
Thermotolerant Colforns
Amosba (Thermophilic Negleria) Chemical Quality\*
Chemical - heelth related
Chemical - non health related
Rediological

100% 100%

Note: When non compliant samples or unalyses found provide details of non compliance and action taken to rectify the problem

Non-Health Related Standards water quality

|   |                | within g<br>No, of samples values | within guideline<br>values | Result   |                   |
|---|----------------|-----------------------------------|----------------------------|--|-------------------|
| Non-health related quality  |                | Ŋ                                 | Included in above results  | ılts   |                   |
| Water Supply Service pressure and flow  | ssure and flow |                                   |                            |  |                   |
| No. of Confumed   |                | No. of Confirmed                  | No. of Confirmed           | No. of Confirmed No. of Confirmed No. of Confirmed   | No. of Candiniest |
| Pressure and flow No. of Confirmed Pressure and flow Pressure and | Confirmed      | Pressure and flow                 | Pressure and flow          | Pressure and flow Pressure and flow Pressure and flow Freisure and flow final remark for fault remark for fault remark for | Pressure and flow |

| Water Supply Ser  | Nator Supply Service pressure and flow  |                   |                   |  |                                       |                   |
|-------------------|---|-------------------|-------------------|--|---------------------------------------|-------------------|
|                   |   |                   |                   |  |                                       |                   |
| No. of Confirmed  |   | No. of Confirmed  | No. of Confirmed  | No. of Confirmed           | No. of Continued                      | No. of Confirmed  |
| Pressure and flow | Pressure and flow No. of Confirmed  | Pressure and flow | Pressure and flow | Pressure and Itow Pressure and Itow   Pressure and Itow   Pressure and Itow   Pressure and Ito | Pressure and flow                     | Pressure and flor |
| fault reports for | fault reports for   Pressure and flow fault fault reports for   fault reports for | fault reports for |                   | lault reports for  | fault reports for   fault reports for | laufi reports for |
| July              | reports for August Sept   | Sept              | October           | November   | Dec                                   | Jan               |
| 6                 | o o   | Ö                 | 0                 | o  | c                                     |                   |
|                   |   |                   |                   |  |                                       |                   |

|                                   | 252  | 8  | I |
|-----------------------------------|--|----|---|
|                                   | No. of Confirmed<br>Interrupilons > 1<br>Inour for May   | 1  |   |
|                                   | No. of Confirmed No. of Contirme Interruptions > 1 Interruptions > 1 Interruptions > 1 Interruptions > 1   | 34 |   |
| •                                 | No. of Confirmed No. of Confirmed Interruptions > 1 Interruptions > 1 nour feb. hour for Mar   |    |   |
|                                   | No. of Confirmed<br>Interruptions > 1<br>Inour for Feb   | 3  |   |
|                                   | No. of Contirmed No. of Contirmed Interruptions > 1 Interruptions > 1 Interruptions > 1 Interruptions   Inc.   Inc | 8  |   |
|                                   | No. of Continned<br>Interruptions > 1<br>hour for Dec  | 45 |   |
|                                   | No. of Confirmed Interruptions > 1 I | 43 |   |
|                                   | No. of Contrained<br>Interruptions > 1<br>hour for Oct   | 30 |   |
|                                   | No. of Confirmed<br>Interruptions > 1<br>Itour (or Sept  | 5  |   |
| ice interruptions                 | No. of Confirmed No. of Confirmed Interruptions > 1 Interruptions > 1 Nour Incur for July for August   | 5  |   |
| Water Supply Service Injerrupilon | No. of Confirmed No. of Confirmed Interruptions > 1 Interruptions  | 84 |   |

standard F

Connactions 12562

reports for Number of

Pressure and flow T feull reports for re

Pressure and flow Pressure and flow fault reports for fault reports for May

Pressure and flow fault reports for March No. of Confirmed

Pressure and It flow fault reports factor Feb In Inc. No. of Confirmed

No. of Confirmed No. of Confirmed

No. of Confirmed

Total ear

Target: % of customers racelving service

Targel: % of customers receiving service

Connections standard 12562

reports for Number of

Interruptions > 1 hour for Jun

뎚

No. of Confirmed

| Restrictions by operating area, type (severity) duration, start date, number of services attended. |   |
|--|---|
| Water Supply Service Leaks and Bursts  | Transcent Control of the Control of |

Water Supply Services - Drought Response

| Water Supply Ser             | Water Supply Service Leaks and Bursts                 |                              |   |                                  |                                      |                             |                             |  |                               |                             |                |                     |                             |   |           |
|------------------------------|---|------------------------------|---|----------------------------------|--------------------------------------|-----------------------------|-----------------------------|--|-------------------------------|-----------------------------|----------------|---------------------|-----------------------------|---|-----------|
| Leaks and Bursis<br>for July | Leaks and Bursts Leaks and Bursts for for July August | Leaks and Bursts<br>for Sept | Leaks and Bursts Leaks and Bursts<br>for Sept | Leaks and Bursts<br>for November | Leaks and Bursis Leaks ar<br>for Dec | Leaks and Bursts<br>for Jan | Leaks and Bursis<br>for Feb | Total leaks or Bursts Leaks and Bursts Leaks and Bursts Leaks and Bursts Leaks and Bursts feports for Leaks or for June reports for Leaks or Indians km mains km mains | Leaks and Bursts<br>for April | Leaks and Bursts<br>for May | Leaks and Burs | Total<br>ts reports | for Length of<br>mains (km) | c 20  | all no de |
| _                            | 7   | .7                           | ÷   |                                  | 3                                    |                             | _                           | -  | G.                            |                             |                | 9                   | 45 3113                     | C   | 7 F       |
| Telephone answe              | Telephone answering - emergency response              | 0500                         |   |                                  |                                      |                             |                             |  |                               |                             |                |                     |                             |   | 2         |
| Month                        | July  | Augusi                       | Sept  | October                          | November                             | Dec                         | Jan                         | Feb  | March                         | April                       | Max            | 911                 | Totals                      | THE BELL  |           |
| No of ralls                  |   |                              |   |                                  |                                      |                             |                             |  |                               |                             |                | 2                   |                             |   | resuit    |
| requiring a                  |   |                              |   |                                  |                                      |                             |                             |  | ,                             |                             |                |                     |                             | -   |           |
| response within              |   | _                            |   |                                  |                                      |                             |                             |  |                               |                             |                |                     |                             |   |           |
| one hour                     | 114   | 105                          | 133   | 172                              | 150                                  | 109                         | 158                         | 124  | 118                           | 6                           |                |                     | 1460                        |   | •         |
| No, of calls<br>receiving a  |   |                              |   |                                  |                                      |                             |                             |  |                               |                             |                |                     |                             |   |           |
| response within<br>one hour  | ř11   | 4 105                        | 133   | 172                              | 150                                  | 109                         | 158                         | 124  | 118                           |                             |                | -                   | 97                          | 100 c | 2000      |

## Six Monthly Report Licensee: Aqwest

Service: Water Supply

Period:

Number of Connections Total:

Number of Connections Residential:

1 January 2001 to 30 June 2001

**Customer Complaints** 

| Number of written complaints due for resolution in the previous six month period | successfully resolved | Target: 90 % of customers received a the service standard | Result |
|--|-----------------------|---|--------|
| (  | 0                     | >90%  | 100%   |

#### **Customer Complaint Data**

All Complaints

Complaints during the preceding six month period in the following categories

| Water Quality                  | 83 |
|--------------------------------|----|
| Water Continuity interruptions | .0 |
| Pressure or Flow               | 42 |
| Accounts                       | 1  |
| Other                          | 0  |

Complaint Resolution: of those complaints resolved in the preceding six months

| Resolved by simple explanation | 1   |
|--------------------------------|-----|
| Resolved by an apology by the  |     |
| licensee                       | 0   |
| Resolved by mediation or the   |     |
| involvement of an independent  |     |
| third party                    | ol  |
| Resolved by monetary           |     |
| compensation                   | 0   |
| Resolved by routine business   |     |
| processes                      | 124 |
| Resolved by other means        | 1   |

| , <b>x</b>  | 0          |
|-------------|------------|
| <del></del> |            |
|             | 0          |
|             |            |
|             | 0          |
|             | + 1, 5, 5, |

# Annual Report Licensee: Aqwest

Service: Water Supply Period:

1 July 2000 to 30 June 2001

Number of Connections Total: Number of Connections Residential:

Services Provided By Agreement

| Number of services provided 90 per cent of customers  Number of services provided by agreement with agreements agreements Result  0 >90% | * |                             |                          |        |
|--|---|-----------------------------|--------------------------|--------|
| s provided 90 per cent of customers have documented ments agreements 90%   |   |                             |                          | ,      |
| have documented agreements agreements >90%   |   | Number of services provided | 90 per cent of customers |        |
| agreements 50%   |   | by agreement with           | have documented          |        |
| %06< 0   |   |                             | agreements               | Result |
|  |   | 0                           | %06<                     | 100%   |

100.00%

1404 > 90%

20

1404

107

Interruptions > 1 Tr Pressure and flow fault reports for 8 No. of Confirmed No. of Confirmed 89 September September August Most Recent Quarte No. of Confirmed Pressure and flow fault reports for Interruptions > 1 hour for August No. of Confirmed 9 109 흨 No. of Confirmed Pressure and flow No. of Confirmed Interruptions > 1 hour for July Leaks and Bursts 97 fautt reports for for July June Pressure and flow fault reports for No. of Confirmed No, of Confirmed Leaks and Bursts for June Interruptions > 1 hour for June tune Мау No. of Confirmed P Interruptions > 1 Interruptions > 1 Interruptions > 1 Interruptions | Inter Pressure and flow fault reports for May No. of Confirmed Leaks and Bursts for May Aprll No. of Confirmed

N Pressure and flow I (ault reports for If April No. of Confirmed Leaks and Bursts Interruptions > 1 hour for April for April March Note: When non compliant samples or analyses found provide details of non compliance and action taken to recrify the problem Pressure and flow F fault reports for (f March 100.0% 100.0% 100.0% No. of Confirmed No. of Confirmed Leaks and Bursts 124 124 Interruptions > 1 hour for March for March February 888 Interruptions > 1 hour for February 58 158 Pressure and flow fault reports for No. of Confirmed eaks and Bursts No. of Confirmed Compliance for February na Compliance February Target January Result icluded in above results 56 56 na 100% Pressure and flow Pressure and flow fault reports for 1 July 2001 to 30 September 2001 12902 Leaks and Bursts Leaks and Bursts No. of Confirmed No. of Confirmed Samples free of Interruptions > 1 hour for January within guldeline within guideline values coliforms and for January December amoeba January Ē 56 56 142 No. of Confirmed Interruptions > 1 hour for 35 No. of Confirmed No. of samples No. of samples No. of samples P. McCleary ior December December December November 11651 elephone answering - emergency response Non-Health Related Standards water quality Water Supply Services - Drought Response Restrictions (1) Operating area, type (severity) duration, start date, number of Health Standards: Microbiological qualit Water Supply Service pressure and flow 172 Water Supply Service Leaks and Bursts reports for November Interruptions > 1 hour for November Number of Connections Total: Number of Connections Residential: Leaks and Bursis for Health Standards: Chemical quality Pressure and flow Pressure and flow No. of Confirmed fault reports for Pressure and flow Water Supply Service Interruptions No. of Confirmed Themotolerant Coliforms Amoeba (Themophilic Naeplerta) Тометре Licensee: Aqwest forth the place Von-health related quality Service: Water Supply Interruptions > 1 No. of Confirmed No. of Confirmed eaks and Bursts Submitted by: or October October

at Quanta Report

Target: % of

receiving

Slandard servica

Connections 12902

Number of

eports for

Tgal .egi Farget: % of

customers

receiving

큠

Service

reports for Number of Year Connections 549 12902

arpel: < 20

eaks or

bursts per 100 km of

둅 Vear

nains (km) reports for Length of

Totals 11 > 90%

Sent

2nd Quarter Report Licensee: Aqwest

Service: Water Supply Perloa:

**Humber of Connections Residential:** Number of Connections Total: Submitted by:

1 October 2001 to 31 December 2001

Health Standards:

P. McCLEERY

100% 100% માં અને માત્રમીઓએમ**95** વીદ્રસ્થાન વાદી માત્રમ**્ક**95 Samples free of -99 888 Total Conforming Ballaktik Light Mitter Thermotolerari Colformistatish 1455 (in Amoebe (Thermothlic Nagglera) 1944

Jealth Sundards: Chemical quality

No. of samplestiff; guideline values 14.1 Ros 

Schetule 3 (8 samples x 22 parameters) + Schedule 4 (7 samples x 9 parameters)

Schedule 5 (7 samples x 10 parameters)

One sample high in alpha additional testing has buen undertaken and awaiting results Final Radiological results are not available at this finite Vote. When non compliant samples or analyses found provide datails of non compliance and action taken to rectify the problem

Non-Health Refated Standards water quality

fault reports for Pressure and flow No. of Confirmed Pressure and flow No. of Confirmed No. of Confirmed No. of Confirmed '1' Pressure and Ite Pressure and Item Pressure and flow. I fault reports for Ount fault reports for April fault reports for May 50 (\$ LE 1.97) Resul % of analyses within guideline values Included in above Pressure and flow No. of Confirmed fault reports for No. of samples Pressure and flow fault Water Supply Service pressure and flow reports for February Na. of Confirmed Non-health related qualit won bne succerault reports for ... No. of Continued . Duran

100 001

9 60 . ..

Target: % of

No. of Continued 11 Notice Confirmed No. of Confirmed IN No. of Co

Interruptions > 1

Result

Connection (sustances

reports for P Total

No. of Confirmed 1, No. of Confirmed 1 No. of Confi

Pressure and flow No. of Confirmed fault reports for

7,11

No. of Confirmed. No. of Confirmed (1) is a Confirmed (No. of Confirmed (1) No. of Confirmed (2) (1) is a Confirmed (2) is a Confirmed (2) is a Confirmed (3) is a Co

Nater Supply Service Interruptions

ž Water Supply Services - Drought Response Restrictions by operating area, type (severity) duration, start date, number of

Water Supply Service Leaks and Bursts

Control of the Southway of the Looks and Burtish Liste and Burnts for Junio Loaks and guarant Leaks and Burtle Life (Inc. April 1914) Leaks and Burata Control of the contro Leaks and Blimis

|  |   |      | %001 |
|--|---|------|------|
|  |   |      |      |
|  |   | 1332 | 1332 |
|  |   | g    | 99   |
|  | The second second                       | 127  | 127  |
|  |   | 143  | 143  |
|  | 100000000000000000000000000000000000000 | 101  | 107  |
|  |   | OH   | 09   |
|  |   | UDI  | 109  |
|  | Thus will be sure                       | 78   | 20   |
|  | Carried States                          | 110  | 81   |
|  | TANKS WALK                              | 60   |      |
|  | 品的松油湖                                   | 110  | 118  |
|  | MAN NEW THE WAS                         | 124  | 124  |
| - emorgency response                     | 器,物件的基础                                 | 158  | 158  |
| Telephone answering - emergency response | WONTERPORTED COM                        |      |      |

7.

307.34

## Six Monthly Report Licensee: Aqwest

Service: Water Supply

Period:

1 July 2001 to 31 December 2001

Number of Connections Total:

12929

Number of Connections Residential:

11651

**Customer Complaints** 

|                                  | Polatenije it in ber   |        |
|----------------------------------|--|--------|
| Number of written complaints due | প্রেলিটারী দে  |        |
|                                  | होमेरिक्स मार्थित हो हो है के लिए हैं के स्वर्ध के किस है जिए हैं कि स्वर्ध के लिए हैं कि स्वर्ध के लिए हैं कि |        |
| month period                     | भूगोंकिक है देहपूर्व भूगे हैं करा लग्न बहुत पहाल   | State) |
| 3                                | 3 >90%   | 100%   |

#### **Customer Complaint Data**

All Complaints

Complaints during the preceding six month period in the following categories

| Water Quality                  | 104 |
|--------------------------------|-----|
| Water Continuity interruptions |     |
| Pressure or Flow               | 29  |
| Accounts                       | 4   |
| Other                          | 3   |

Complaint Resolution: of those complaints resolved in the preceding six months

| Resolved by simple explanation         | 4   |
|--|-----|
| Resolved by an apology by the          |     |
| Resolved by an apology by the licensee | 1   |
| Resolved by mediation or the           |     |
| involvement of an independent third    |     |
| party                                  |     |
| Resolved by monetary                   |     |
| compensation                           |     |
| Resolved by routine business           |     |
| processes                              | 133 |
| Resolved by other means                | 1   |
|  |     |

| Total number of written complaints                            | 6 |
|---|---|
| Number of written complaints resolved within 21 days          | 6 |
| Number of written complaints resolved in greater than 21 days | * |

No. of Confirmed: J. No. of Confirmed: No. of Confirmed: No. of Confirmed: Pressure and flow; P. Ressure and F. Ressure No. of Confirmed; I intermiptions 5-1 kM in the industrial Decamber in Pressure and flow: Pressure and flow Pressure and flow it fault reports for the fault reports for the flow in the hour for NEW I No: of Confirmed No. of Confirmed No. of Confirmed: No. of Confirmed : Note: When non compilant samples or analyses found provide details of non compilance and action taken to recitly the problem No. of Confirmed 1: [1] No. of Confirmed No. of Confirmed 1: [1] Interruptions > 1] Interrupt 100 % 100 % 100 % No. of Confirmed Pressure and Roy of Persure and Roy of Confirmed Pressure and Roy of Persure R No. of samples 11 guideline values | Result Included in above results 1 January 2002 to 31 March 2002 No. of Confirmed
Pressure and flow No. ž 88 88 200 Peler McCleery 11703 Non-Health Related Standards water quality Water Supply Services - Drought Response Restrictions by operating area 1956: 1 (seventy) duration, sean date, number of Nater Supply Service pressure and flow Number of Connections Total: Number of Connections Residential: Nater Supply Service Interruptions 3rd Quarter Report Licensee: Aqwest Non-health related quality Service: Water Supply No. of Confirmed Internations > 14 to voice for April 19 to voice Submitted by: Perlod اق گ -122 E 25 22 E 5

100 00%

Target: % of

18. g Confirmed No. of 
Display

Tarpel: % of

|                                       | All A Line   | 21.0   | 4                      |       | 3    | K 25 |
|---------------------------------------|--|--|------------------------|-------|------|------|
|                                       | Tarpet: < 20<br>Bekg or in:<br>The fight in  | 19641995/20  |                        |       |      |      |
|                                       |  | 31164  | Land In St.            | 1000  | 5221 | 1664 |
|                                       | Call recording   | EU   | N. Series              |       | 609  | ida. |
|                                       |  |  | The Court of the Court | 90    | 8    | 1    |
|                                       | A February (25)  | <u> </u>   |                        | o     | C    |      |
|                                       |  |  | The state of           | 6     | G.   |      |
|                                       | Mary Burstan   |  | A POSTAGO CANADA       | 127   | 127  |      |
|                                       | oaks and Bursts. Lo  | 1  | TO THE PERSON NAMED IN | .43   |      |      |
|                                       | Leaks and Bursis Ir  | 9  | Sontember Friedrich    | 107   | 107  |      |
|                                       | in sand Bursts Le  | 7  | Jones Person           | 9     | 80   |      |
|                                       | Control of the series of the s |  | Which states with all  | . 00- | 100  |      |
|                                       | aks and Bursts - Le  |  | of physical and an     | 00    | 48   |      |
|                                       | Leaks and Burgis (Cor June /   | <b>3</b>   | 三 多様をいるがん              |       | 6    |      |
| e cears and bursis                    | Published Comments of the Comment of | Paraditary Volumes of Distremental State of Stat | WEARING SALES IN       | äß    | as   |      |
| Water Supply Service Ceaks and Bursts | Leaks and Burks La   | is phone answering   |                        |       |      |      |

44

| Health Standards: Microbiological quality  Microbiological California (Marchaeleria)  Total Collionia error Karviteria  Themodolerant Collionia kirkinia  Amoebe (Themodoliia) Nasolera)   |   | No. oo oo  | A Sempley free of Little Franciscope (Control of Control of Contro | 00 (4) (4) (4) (4) (4) (4) (4) (4) (4) (4)                                | Result 1974  |   | ÷   |  |  |  |  |   |  | •                |
|--|---|--|--|---|--|---|---|--|--|--|--|---|--|------------------|
| Health Standards: Chemical quality  Line (1918) Registration (1919) Chemical Quality Wile Health Ship (1919) Chemical I non health realed Tests of 1919 (Chemical I non health realed Tests of 1919) Redictorical III (1919) Registration (1919) Redictorical III (1919) Registration (1919)   |   | No.tof samples KN. No.tof samples KN. 81 80 90 2 2             | Ye of applyaes within [ 기년] 한 가는 한 한 한 년 등 100% [150%] [1  | Rosult (1977) (1.44) Rosult (1977) (1.44) Co and action taken to          |  | Guidelina Schedulu<br>3 Organic Haallh<br>4 Inorganic Haalth<br>5 Inurganic rext lue<br>6 Rutcholegical | Number of Schedule parameters 22 Health 9 Freatth 9 Freatth 10      | No stos in Portod  0  9  9   | Total of samples 0 81 81 81 82 82 82 82 82 82 82 82 82 82 82 82 82   |  |  |   | ٠  |                  |
| Non-Health Related Star  | Non-Health Related Standards water quality Y Northealth related quality   | to of samples  | % of analyses within<br>guideline values Re<br>included in above results   | Result  |  | · · · · · · · · · · · · · · · · · · ·   |   |  | ÷  | . <del>-</del>   |  |   |  |                  |
|  |   | No. of Confirmed<br>Pressure and flow<br>feut raports for 11   | No. of Continued<br>Preseure and flow<br>fault reports for<br>October  | No. of Confirmed<br>Pressure and flow<br>fault eports for<br>November     | No. of Cortimud Pressure and fluw   fault reports for   Doc  | No. of Confirmed<br>Pressure and flow<br>fault reports for Jan  | No. of Confirmed<br>Pressure and flow<br>fault reports for :<br>Feb | No. of Confirmed > Pressure and flow, Elault reports for the March   | to, of Confirmed<br>Pressure and Row<br>authreports for [7]<br>pril 18, 31,445   | Most Recent Quarte<br>No. of Confirmed<br>Pressure and flow<br>fault reports for   | No. of Confirmed<br>Pressure and flow<br>fault reports for |   | Target<br>custom<br>receiving<br>serving   | of<br>Result     |
| Water Supply Service No. of Contimed - No Internations - International - Inter | Service interruptions  Service interruptions  It is interruptions > I how for the interruptions | No. of Confirmed<br>Interruptions 2,145<br>hour for Sept 1,262 | No. of Confirmed (c) Interruptions > 1 (c) Hour for Oct (c)  | No. lot Confirmed Interruptions 2 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1) | 4o, of Confirmed<br>nemptions > 1  | No. of Confirmed 1: No. information 1: 13, 13, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14                   | io, of Confirmed<br>tleruptions > 1<br>our for Feb 19 19            | No. of Confirmed II. No. in Internations - 1 (1) in In | Control of the contro | to of Confirmed instructions of the confirmed instructions of the confirmed instruction with the confirmed instruction win the confirmed instruction with the confirmed instruction with t | Line Confirmed   | otal (or sur life)                          | Target % of Consolidation of Consolidati | September 1100%. |
| Water Supply Services - Drought Ros<br>Restriction by populity even 'type<br>(seventy) duralton, start daje, number of<br>services affected  | Respo<br>ar of  | ***************************************                        |  |   | The state of the s |   |   |  |  |  |  |   |  | 1                |
| Water Supply Service Leaks and Bursts  Water Supply Service Leaks and Bursts for Iteraks for I | 1 1   | each Tribition or Sept. 1474 West                              | saks and Burals  | able and Burals 4   | able and Burats<br>or Dec  | Leaks and Burston for Jan 21 WKK-19-01  | Loaks and Bursis<br>for Feb 125 Min. And                            | oeke and Burish<br>or March Verbild  | And Street   | Service of  |  | Totali<br>reports for Length<br>year analis | Target < 20 to 10  | 20<br>           |
| Teleptone answering Moon Wild Health No. of Cally Required Resource Resource Resource Resource Resource  | Ing - emergency response<br>Ing The August A Portion - August A Portion - August A Portion - August A Portion - Boo   | August 3) Priffs 1-  | Sept 15th White  | October (1991) Strains  | November 27, 1 1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-  | Dec; 1:121 (155)  | 18 18 18 18 18 18 18 18 18 18 18 18 18 1                            | Fabrural March March 1978  | 102  | <b>以</b><br>第2<br>第2<br>第2<br>第2<br>第2<br>第2<br>第3<br>第4<br>第4<br>第4<br>第4<br>第4<br>第4<br>第4<br>第4<br>第4<br>第4   | May May May  | A Company                                   | TOMIS (1971)   |                  |
|  | 100   |  |  |   |  | 68  |   | 08   | 102  | 11   | 60   | 18  | 1185   | 100%             |

4th Quarter Report
Licensee: Aqwest
Service: Water Supply
Period:
Number of Connections Total:
Number of Connections Residential:
Submitted by: Puter McCherry

## Six Monthly Report Licensee: Aqwest

Service: Water Supply

Period:

Number of Connections Total:

Number of Connections Residential:

1 January 2002 to 30 June 2002

13021

11740

**Customer Complaints** 

| 一、在对一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个   | Numberorwotter   | *  | -  |         |
|--|--|--|--|---------|
| 1. 大学 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.   | STORING FORTHURS   | I a  |  |         |
| Number of written complaints due   | complaints   | The second We sto see  | 14   |         |
|  | COLIDISITIES   | िनाञ्चानः और फेल्का  |  |         |
| for resolution in the previous six   | Supposed will a receive of   | The state of the s | 1  |         |
| LOUIS CONTRACTOR CONTR | Successfully resolved  | বিশেষকার্ড ক্রিটালীবার   | :  |         |
| month norted   | E-CONTROL OF THE CONTROL OF THE CONT | <u>.</u> .   | <u>.                                    </u> |         |
| monut benod  | Within 2 tidays  | विश्वसम्बद्धाः असम्बद्धाः  | Result                                       | ٠,      |
|  |  |  | 40.000.00                                    |         |
| l Ul   | 01   | >90%   |  | 100%    |
|  |  | ,  |  | 100 701 |

#### **Customer Complaint Data**

All Complaints

Complaints during the preceding six month period in the following categories

|   | 141. PO1.00 III STO 10III |
|---|---------------------------|
| Water Quality等等等。                             | 22                        |
| Water Continuity interruptions                | 0                         |
| Pressure or Flow                              | 20                        |
| Accounts                                      | -                         |
| Other And | 65                        |

Complaint Resolution: of those complaints resolved in the preceding six months

| Resolved by simple explanation      | 7   |
|-------------------------------------|-----|
| Resolved by an apology by the       |     |
| licensee                            | 0   |
| Resolved by mediation or the        |     |
| involvement of an independent third |     |
| party                               | o ' |
| Resolved by monetary                |     |
| compensation                        | 0   |
| Resolved by routine business        |     |
| processes                           | 101 |
| Resolved by other means             |     |

| TYTICE COMPLETIES   |   |
|---|---|
| Total number of written complaints                            | 1 |
| Number of written complaints resolved within 21 days          | 0 |
| Number of written complaints resolved in greater than 21 days | 1 |

# Annual Report Licensee: Aqwest

Service: Water Supply Period:

Number of Connections Total: Number of Connections Residential:

Services Provided By Agreement

| River Supply   | 100% |
|--|------|
| ded 90 per cent of customers have documented fauth with the work of the control o | %06< |
| Number of services provided by agreement with services documented agreements with  | 0    |
| berrof services provided<br>jreement was have  | 0    |

3rd Quarter Report

Licensee: Aqwest Service: Water Supply

Number of Connections Total: Number of Connections Residential: Submitted by:

1 January 2002 to 31 March 2002 12878 11703 Peter McCleery

| Health Standards: Microbiological que inferencial de la company de la co |
|--|
|--|

|                                    | Number of  | Guidalina Schadala paramalors  | 3 Organic Hoalills                            | 4 Inorganic Health             | 5 Inorganic non hez                  | 6 Rarhaloppical |
|------------------------------------|--|--|---|--------------------------------|--------------------------------------|-----------------|
|                                    | The substitution of the second of the substitution of the substitu | No. of samples ? Af guideline Values :   Rosuli (1.7) 14-(2.4%)  | 100%  | 74001 OE                       | 7400)                                |                 |
| Health Standards: Chemical quality | 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1   | Chemical Octania and an artist and artist artist and artist and artist artist and artist artist and artist artist artist and artist artist and artist ar | Chemical Phealth helated Study (4 1914, 1915) | Chemical 2noh health rolated 1 | Radiological Problement Transmission |                 |

No siles to Period Total of samples

22 0 22

Note: When non compliant samples or analysus found provide details of non compliance and action taken to reclify the problem

Non-Health Retated Standards water quality

| Samples Guideline values Resutt   | Included in above results  |
|---|----------------------------|
| WATER STATE OF STATE | Non-health related quality |

| _                                      | টু বু  | L            |
|--|--|--------------|
| 2                                      | No. of Confirmed<br>Pressure and flow<br>fault reports for a   |              |
| Most Regard Quarte                     | No. of Confirmed<br>Pressure and flow<br>fault reports for<br>February   | 0            |
|  | No. of Confirmed<br>Pressure and flow<br>fault reports for all<br>lanuary faultherities  | 0            |
|  | No. of Confirmed Pressure and flow Institute Insti | <del>Q</del> |
|  | No, of Confirmed Pressure and flow Flaut reports for   | 0            |
|  | Vo. of Confirmed<br>Pressure and flow<br>ault reports for, P<br>October  | Ü            |
|  | No, of Confirmed Pressure and flow Fault reports for Copiember   | C            |
|  | No. of Confirmed No. of | lo           |
|  | No. of Confirmed: No. of Confirmed Pressure and flow Pr | o            |
|  | No. of Confirmed: Prussure and flow No. of Confir fault roports for the Prussure and June  | ð            |
| Nater Supply Service pressure and flow | No. of Confirmed Pressure and flow Pres | Ď            |
| Water Supply Servi                     | No. of Confirmed . Pressure and flow No. of Confirmed feutil reports for Pressure and flow April . reports for May   | 5            |
|  |  |              |

|                                    | Number o<br>Conhects   |
|------------------------------------|--|
|                                    | Teportal   |
|                                    | 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4  |
|                                    | of Confirm<br>To March   |
|                                    | ned No.  |
|                                    | of Confirm<br>Tipitons >><br>Province  |
|                                    | 200  |
|                                    | O O O O O O O O O O O O O O O O O O O  |
|                                    | Confirmed A N  |
|                                    | 2 B S  |
|                                    | No. of Confirmed No. of Confirmed interruptions > 1 |
|                                    | No. of Co. inlempli  |
|                                    | of Confirmed in for October  |
|                                    | No. of C<br>Interrup<br>Hour for   |
|                                    | Confirmed<br>pllons > 1<br>X 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   |
|                                    | No. of International September 137   |
|                                    | of Confirmed<br>ruptions 2-15  |
|                                    | ed :: No.  |
|                                    | No. of Confirmed () No. of Confirmed (), (1) No. of Confirmed (), (1) of Confirmed (), (1) interruptions (), (1) interruptions (), (2) interruptions (), (3) interruptions (), (3) interruptions (), (4) interruptions (), (4) interruptions (), (4) interruptions (), (4) interruptions (), (5) interruptions (), (6) interruptions (), ( |
|                                    | ons > 1 p  |
|                                    | No. of Corr<br>interruption  |
| 511                                | id Sagar<br>Thour for<br>Hausy Aug<br>18   |
| Water Supply Service Interruptions | o of Confirmed ( No. of Confirmed 15.7.1) No. of Confirmed ( No. of Confirmed ) No. of Confirmed ( No. of Confirmed ) I the of Confirmed ( No. of Confirmed ) I then options 2.1.4 Interruptions 2.1.4 Interru |
| ily Service                        | med No.  |
| Vater Supp                         | lo. of Confi<br>ilemuptions<br>pur for Apri  |
| 2                                  | ZSE  |

Target: % of customers

Tarpel: 14 of

Number of ..

Total reports for year

ž Water Supply Services - Drought Response Restrictions by operating snee, type (seventry) duration, start dato, number of services affected

|                                       | Band Bud Bud William   |   |
|---------------------------------------|--|---|
|                                       | Property of the second of the  | - |
|                                       |  | 0 |
|                                       | ka and Bursts in Lin   | = |
|                                       | Manual Manual Lea  | ~ |
|                                       | wake and Burats (Lear Coctober 1771)   | - |
|                                       | September 10   | _ |
|                                       | Bake and Burets II   |   |
|                                       | eaks and Bursts ). In<br>or July 2011 1911 1911  |   |
|                                       | State of Sta |   |
| Leaks and Bursts                      | A pull the for the and Bursts for the said Bur | 5 |
| Water Supply Service Leaks and Bursts | April 19 19 19 19 19 19 19 19 19 19 19 19 19   | 9 |
| -                                     | اع د   | _ |

|  | 21.11      | 40x10  | ON CANADA        |                             |             | 200      |
|--|------------|--|------------------|-----------------------------|-------------|----------|
| Sapiember (Alegan) Ministration (Movember Alegan) (Movember Alegan | (74) ZD    | <b>15.</b>   | 1                |                             |             |          |
| Sapiember (Metall Ministratification) Sapiember (Metall Ministratification) Sapiember (Metall Ministratification) Sapiember (Metall Metall Met | 311 64 900 |  |                  | 1223                        |             | 00.16661 |
| Sapiember 12 team   Market Market   Market Mar |            | A STATE OF THE PARTY OF THE PAR | TOTAL STREET     | 103                         |             | 102      |
| Sapiember 19 teath Westernber Medical Constitution (1977) 143 127 89   |            | A PARTY  | Mai Ca           | Q                           |             | 8        |
| Sapiember 19 teath Westernber Medical Constitution (1977) 143 127 89   |            | 20.7   | Section 1        | <del>-</del> <del>-</del> - |             | _        |
| Saptember 4 4 4 127  |            |  | ALL AND THE LINE | 16                          |             | 30       |
| Sapiember 19 107 143   | la la      |  |                  | 9                           |             | 68       |
| Sapiember 19 107 143   |            |  |                  | 127                         |             | 127      |
| Septemb  | •          | ALC: LANGE   |                  |                             |             |          |
| Septemb  |            | S. W. S.   |                  | 143                         |             | 143      |
| Septemb  |            | <b>新教</b>  |                  | 107                         |             | 107      |
| Complement of the control of the c   |            | Sentember  |                  | o                           |             | _        |
| Celephone answering - energency response  Working Control  Working Contro  |            | Perfection 22 to a   |                  | 8                           |             | 60       |
| Colphone answering - emergency response  |            | William XIII   |                  | 100                         |             | 100      |
| Telephone answering - emergency response  Working Control  Working Contro  |            | 語のない。  |                  | 07                          |             | 78       |
| Calephone answering - energency responses   New York    |            |  |                  |                             | -           |          |
| Mocon Management (1997)  Mocon Management (1997)  Mocon Management (1997)  Mocon Management (1997)  Mocon Mocon Management (1997)  Mocon Mocon Mocon Management (1997)  Mocon Mocon Mocon Management (1997)  Mocon Mocon Mocon Mocon Management (1997)  Mocon Mocon Mocon Mocon Management (1997)  Mocon Moc |            | "  |                  | 18                          | <del></del> | 181      |
| Respirate answering - emergency re- North February (April 1995) (April |            | Ponts<br>Wiff Lay  |                  | 00                          |             | 88       |
| Month Jernation - Maring - Month Jernation - Mon |            | Margancy ter   |                  |                             |             |          |
| Month Market Month |            | A A A A A A A A A A A A A A A A A A A  |                  | 5<br>5                      |             |          |
|  |            | Telephone a  | Nomittee No      |                             |             |          |

### Six Monthly Report Licensee: Aqwest

Service: Water Supply

Period:

Number of Connections Total:

Number of Connections Residential:

1 January 2002 to 30 June 2002

13021

11740

**Customer Complaints** 

| Number of written complaints due-<br>for resolution in the previous six<br>month period | Numberiolityriften complainis: គោកមាន ១០ % ១០ successfullyriesolyed customers receive within 21:days: libe service stands | di<br>Nesuli |
|---|---|--------------|
| 0   | 0 >90%  | 100%         |

#### **Customer Complaint Data**

All Complaints

Complaints during the preceding six month period in the following categories

| Water Quality                  |      |
|--------------------------------|------|
|                                | . 22 |
| Water Continuity interruptions | 0    |
| Pressure or Flow               | 20   |
| Accounts                       |      |
| Other                          | 65   |

Complaint Resolution: of those complaints resolved in the preceding six months

| Resolved by simple explanation                                   | 7   |
|--|-----|
| Resolved by an apology by the licensee                           | 0   |
| Resolved by mediation or the involvement of an independent third |     |
| party  | 0   |
| Resolved by monetary compensation                                | 0   |
| Resolved by routine business processes                           | 101 |
| Resolved by other means  |     |

| Total number of written complaints                            | 1 |
|---|---|
| Number of written complaints resolved within 21 days          | 0 |
| Number of written complaints resolved in greater than 21 days | 1 |

1st Quarter Report

Licensee: Aqwest Service: Water Supply Perlod:

1 July 2002 to 30 Saptember 2002 13059 P. McClaory 11800 Number of Connections Residential: Number of Connections Total:

Health Standards: Microbiological qualit

Submitted by:

100 0% Market Bright Back Bo Amples free of the solution of THE NO OF SEMPLES IN SINGE 95 95 95 Thermotolegiant Colifornis Methy 15 (1919) Amoebs (Thermophilic) Nebplerial (Pethyl) (1919)

Health Standards: Chemical annuals

|                                      | Result to with  | Compliance                                  | Compliance                                     | Commission   |
|--------------------------------------|---|---|--|--|
|                                      | % of analyses within<br>guideline values 등  | ) eu  | %00t   | ENI  |
|                                      | No. of semples 1.1  | 0   | 134  | 0  |
| income delication of contract ducing | Chemical Outling the Control of the | Chernical Phéalth felated Wight Artifulging | Chemical Vnon health felaled Attaches the fig. | Radiological Market Sandard Market Sandard Sandard |

Note. When non compliant samples or analyses found provide details of non compliance and action taken to rectify the problem

Non-Health Related Standards water quality
Related Standards water quality
Related Standards Sta

| A Merel 1<br>No. of Confirmed<br>Pressure and flow<br>fault reports for | March  |
|---|--|
| No. of Confirmed's Prussure and flow flault reports for                 | - dumber   |
| Pressure and flow<br>fould reports for                                  | עייין אייין  |
| Pressure and flow   |  |
| Pressure and flow fault   |  |
| No. of Confirmed<br>Pressure and flow<br>fault reports for              | 200  |
|   | The state of the s |

No. of Confirmed litterraplicaes > 1 No. of Confirmed Interruptions > 1 hour for May No. of Confirmed futernipillens > 1 hour for April No. of Confirmed No. of Confirmed Interminitions > 1 hour for March liquir for February No. of Confirmed Internations > 1 Internations > 1
Iour for December Took for January No. of Confirmed. No. of Confirmed
Interruptions > 1 hour this Water Supply Service Interruptions No. of Confirmed Interruptions > 1 Nour for October

Rosult 100 (NPS

98.6

slandard

Connections

reports for Number of

ם Ē

Pressure and flow fault reports for No. of Confirmed

fault reports for

fault reports for

fault reports for

fault reports for

May

Pressure and flow Prossure and flow

Prossure and flow

fault reports for

를

No. of Confirmed

No. of Confirmed

No. of Confirmed

Angust

Most Recent Quarte

No. of Confirmed No. of Confirmed Pressure and flow

Saptanibar

rocalving

Target: % of: customers of receiving of

standard SOVICE

Commedions (

177

팋

Seplember

tour for August

hour for July

non for June

274/20

1. C. C. C. E.

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(w. w.)

reports for Number of

Total

No. of Confirmed Interruptions > 1 1 1 hour for

No. of Confirmed Interruptions > 1

No. of Confirmed Interruptions > 1

> Ī Water Supply Services - Drought Response (severty) duration, start date, number of services affected trans-refliction in the line. Restrictions by operating area, type

| Leaks and Bursts   Leaks and Bursts for<br>for October   November | Carlos and Bursts for 1 Leaks and Bursts 1 Leaks and Bursts 1 Leaks and Bursts 1 November for December for January 1 Tor February 1 Or March 1 | Leaks and Bursts<br>for January | Leaks and Bursts for February | Leaks and Bursts<br>for March |
|---|--|---------------------------------|-------------------------------|-------------------------------|
|---|--|---------------------------------|-------------------------------|-------------------------------|

|                          | 1 .            |              |
|--------------------------|----------------|--------------|
|                          | February       |              |
|                          | A-61949        |              |
|                          | January        |              |
|                          | paga - Ji      |              |
|                          | . 11, December |              |
|                          | 11, 11         |              |
| 50                       | November       | ,            |
| cy respon                | Part Apr 184   |              |
| answoring - emorgoncy re | clober !       |              |
| answork                  | 0              | 200          |
| i alaphana               | Month ( )      | No. of Calls |
| ٤                        |                |              |

| October 1   Control   Co | nane enswe          | hans answering - emergency response |               |          |              |          |   |       |     |   |             |       |             |    |     |      |                   |               |
|--|---------------------|-------------------------------------|---------------|----------|--------------|----------|---|-------|-----|---|-------------|-------|-------------|----|-----|------|-------------------|---------------|
| 90 102 777 01 10 1125 1125 1125 1125 1125 1125 112   | के दिन्द्र भूत      | October 1 (** 1 - 1 - 1 - 1 - 1     | November. 11, | December | January (*** | February |   | ∴ And | Wav |   | didient non | Spile | 131.01.46   |    | - T |      | music description | 2.2. A. A. A. |
| 127 69 69 69 69 77 77 HT 67 77 70 77 70 77 70 77 77 77 77 77 77 77   | calls (%)           | 143                                 | 12.           | 4        | 6.           | 56       | 9 | 1     | 22  |   | ž           |       | <del></del> | \$ |     |      |                   |               |
| 127 69 69 69 102 777 811 691 692 789 779 781 777 781 779 781 779 781 779 781 779 781 779 781 781 781 781 781 781 781 781 781 781   | Petition at Literal |                                     |               |          |              |          |   |       |     |   |             |       | ,           | 10 | 1.0 | 1123 | 1000              |               |
|  |                     | 143                                 | [2]           | 8        | 81           | 98       | 8 | . 102 |     | £ | <b>.</b>    | 6     |             | 02 | 78. |      |                   | 200           |

100.00%

Result

100 kin of

Leaks and Bursts Treports for Langth of

100

for Septembar

Leaks and Bursts | Loaks and Bursts

for August

for July

Leaks and Bursis

Leaks and Bursts

Leaks and Bursts

for April

or Mav

for June

Total

mains (km)

bursts per

200

Thursday, 16 January 2003 17:01:37

8

1075 > 00%

96

102

October 2002 to 31 December 2002 P. McCLEERY Number of Connections Total: Number of Connections Residential: Service: Water Bupply Submitted by: Parlod

Licensee: Aqwest ¥ Re

ichadule 7 section 2.1 Health Standards:

|  |                                      | 7       |                       |                    |
|--|--------------------------------------|---------|-----------------------|--------------------|
|  |                                      | .00     | 8                     | 100                |
|  | =                                    |         |                       |                    |
|  | Rosul                                | L       |                       |                    |
|  |                                      | 8       | 90                    | 8                  |
|  |                                      |         |                       |                    |
|  | Target                               |         |                       |                    |
|  |                                      | 6       | 6                     | 20                 |
|  | free c                               |         |                       |                    |
| Ä  | Samples free of coliforms and amoeba |         |                       |                    |
|  | <b>ភេសត</b>                          | 67      | 67                    | 07                 |
|  | mples                                |         |                       |                    |
|  | No. of sam                           |         |                       |                    |
| Ě  | ₽                                    |         |                       | _                  |
|  |                                      |         |                       |                    |
|  |                                      |         |                       | ę                  |
| i  |                                      | ÷       | ٦.                    | 줥                  |
|  |                                      | 3       | 7                     | ž                  |
|  |                                      | 2       | o Louis               | 2000               |
|  | de Original                          |         | rant Colforns         | Termoothillo Na    |
| The state of the s | Manual Control                       | Company | notolerant Colforms 1 | On Chermochillo Ne |

chedule 7 section 2.1 Health Standards: Chemical quality

|  |                | within guideline |        |  |
|--|----------------|------------------|--------|--|
| nemical Quality in this is a second      | No. of samples | values           | Rosult |  |
| lemical - heelth related (echedules 3.4) | 261            | %001             | 7,001  |  |
| (Signature (Schedule 6)                  | 7              | 4001             | 701717 |  |

Note: When non compliant samples or analyses found provide details of non compliance and action taken to rectify the problem

Schedule 7 section 2,1 Non-Yealth Related Standards water quality

8 Result within guideline 8 values No. of samples Non-health related quality (achedule 5,2 & w

No. of Confinned Prosaure and flow No. of Confirmed No. of Continued No. of Continued Pressure and Itow Fressure and Itow Fault reports for March April Schedule 7 section 2.2 Water Supply Service pressure and flow Pressure and flow fault reports for Fobrary No. of Confirmed
Pressure and flow No. of Confirmed
fault reports for Pressure and flow

fault reprints for Pressure and flow fault reports for Schedule 7 section 2.3 Water Supply Service Interruptions

Result 100 00%

standard >00.0

Fargot: % of customors recalving 3.5

Sundard

Connections s

Total for

힐

November 10 66 ADVISED 10 BE ADVISED

Octobar TO BE ADVISE D

JE Q

September October Hovember December

June August 10 BE ADVISED TO BE ADVISED

reports for Number of

Total

No. of Confining

No. of Confirmed Internaptions > 1 Muversbur

hilorophilons > 1 reports for less for

hiteruplians > 1 Interruptions > 1 Ingir (or Octobur

Infernplican > 1 In troor for August 10

hun for July

hour for June 1/1

No. of Confinned Interneptions > 1

No of Confirmed

No. of Confirmed

No of Continued

No of Continued Memphins > 1

Target: % of customers

racelving

Beryke

Number of

reports for

Total

Pressure and flow fault reports for

Prossure and flow fault reports for

Prossure and New fault reports for

fault rayouts for September

lault ropunts for

Pressure and flow No. of Cunfirmed

Angust

October

Opcembar

No. of Confirmed

No of Continued No. of Confirmed

No of Confirmed No. of Confirment Prossure and flow Pressure and flow

Most Recent Own

Hour fur May 310 No. of Confirmed Interneptions > 1 Interruptions > 1 Interruptions | 1 Interruptions | 1 Interruptions | 161 No. of Confirmed No. of Confirment Interruptions > 1 Interruptions > 1 Interruptions > 1 Input for March 14 Schedule 7 section 7.3 Plannad Interruptions No. of Confirmed Inferruptions > 1 hour for February No. of Section 1 tole Indeed for January for No. of Confirmed

May June June 1 July August September 10 DE ADVISED 10 DE April TO BE ADVISED January February March TO BE ADVISED TO BE ADVISED TO BE ADVISED Schedule 7 section 2.3 Unplanned interruptions January February
TO BE ADVISED TO BE ADVISED

March April May 10 BE ADVISED 10 OE ADVISED Schedule 7 section 2.4 Water Supply Services · Drought Response ₹ Restrictions by operating stea, lyps (severity) duration, start date, number of services affected

Schedule 7 section 2.3 Water Supply Service Leaks and Bursts

|       |   |  |  |                              |                              |  |   |                                 |  |                 | I I         |             | Target: < 20<br>leaks or |        |
|-------|---|--|--|------------------------------|------------------------------|--|---|---------------------------------|--|-----------------|-------------|-------------|--------------------------|--------|
| March |   | Leaks and Bursia Leaks and Bursia<br>for March for April | Leaks and Bursts Leaks Leaks and Bursts Leaks and Bursts Leaks Leaks Leaks Leaks and Bursts Leaks Leaks Leak | Leaks and Bursis<br>for June | Looks and Dursts<br>for July | Lonks and Bursts Lonks and Bursts - Loaks and Bunds for Argust | oaks and Busis<br>or Septombor          | t eaks and Bunds<br>for October | Leaks and Bursts Leaks and Bursts reports or Length of 100 km c. for November to Corpushey was and a second for Length of 100 km c. for the first training the contraction of the contra | onks and Burnts | reports for | ongth of 10 |                          | ,      |
|       | 5   |  |  | 4                            | <u></u>                      | 7  | e .                                     | 3                               | 7  | 5               | 19          | 318         | 25                       | 19.2   |
| =     | Schedule 7 section 1 Talephone answering - emergency response | oonse  |  |                              |                              |  |   |                                 |  |                 |             |             |                          |        |
| q     | Febraury  | March  | April  | May                          | Bunt                         | - India  |   |                                 |  |                 | 1           |             | The Land                 |        |
|       |   |  |  |                              |                              |  |   | Supreminour                     | Cepper   | Novernbar       | Dac         | Tolals >-   | *00*                     |        |
|       |   |  |  |                              |                              |  |   |                                 |  |                 |             |             |                          |        |
|       | 06  | 102  | 77   |                              | Ī                            |  | f                                       |                                 |  |                 |             | _           |                          |        |
|       |   |  |  |                              |                              | 5  | 2                                       | 5)                              | Ξ  | 102             | 8           | 1075        | æ                        | Result |
|       | ••  |  |  |                              |                              |  |   |                                 |  |                 | •           | _           | -                        |        |
|       | 5   |  | r  |                              |                              |  |   | _                               |  |                 |             |             | -                        |        |
| :     |   | 701  | //   | =                            | =                            |  | ======================================= |                                 |  |                 | 1           | 1           | _                        |        |

| - | 5005  |
|---|---|
|   | WAGWESTN16 (CompanyOperations)OWR Reports/Anwest Operation Libertal Burnata 2002 2003 |

# Six Monthly Report Licensee: Aqwest

Service: Water Supply

Period:

Number of Connections Total:

Number of Connections Residential:

1 July 2002 to 31 December 2002

13118

11858

**Customer Complaints** 

| Number of written complaints due for resolution in the previous six month period |    | Target: 90 % of | Result |
|--|----|-----------------|--------|
| 1  | 11 | >90%            | 100%   |

#### Schedule 2 section 2 Customer Complaint Data

All Complaints

Complaints during the preceding six month period in the following categories

| Y                              | יונטו טווא אווי שטווטק יייי |
|--------------------------------|-----------------------------|
| Water Quality                  | 20                          |
| Water Continuity interruptions | 0                           |
| Pressure or Flow               | 34                          |
| Accounts                       | 2                           |
| Other                          | 1                           |

Complaint Resolution: of those complaints resolved in the preceding six months

| The state of the s | oraca in the bi                       |
|--|---------------------------------------|
| Resolved by simple explanation   | 3                                     |
| Resolved by an apology by the  |                                       |
| licensee   | 1                                     |
| Resolved by mediation or the   |                                       |
| involvement of an independent third  | •                                     |
| party  | 1                                     |
| Resolved by monetary   |                                       |
| compensation   | 4                                     |
| Resolved by routine business   | · · · · · · · · · · · · · · · · · · · |
| processes  | 46                                    |
| Resolved by other means  | 2                                     |

| Total number of written complaints | 6 |
|------------------------------------|---|
| Number of written complaints       |   |
| resolved within 21 days            | 5 |
| Number of written complaints       |   |
| resolved in greater than 21 days   | 1 |

Turpet, % of customers receiving service Talian Inter fumber of Number of Total reports for <u>10 BE ADVISED | 10 BE AUVISED /u> Total reports for HOBE ARMSON HOBE ADMSON HOBE ADMSON HOBE ADMSON HOBE ARMSON HOBE A Total for year Total for year file of Confirmed Interruptions > 1 New for March March Chest teresed thanks Februery Deplember October Huveninge | December Jenuery No of Confuned Interruptions > 1 Iour for December December No of Codinson Interruptions > 1 Nourter Novembler No. of Continued 1 Preserve and flow 1 fault reports for 1 October No. of Contensed Interruptions > 1 front for October October No. of Conferned Pressure and flow fault reports for Suppensent iterruptions > 1 our for Vo. of Continued September September No of Confirmed Pressure and flow (auth reports for TO BE ADVISED TO BE ADVISED TO BE ADVISED No. of Continued Interruptions > 1 hour for August Avevet AUDUS aut reports for July No of Confirmed Interruptions = 1 hour for July No. of Confirmed Pressure and flow · Alar APP tinguis f satison 2.2 Weter Supply Survice presents and frem Hat, of Continued (2015) (1) The continued Preserve and from His of Continued Preserve and the feath reports for 1) Preserve and thou feath reports for 100 feath feather reports for 100 feather reports for 100 feather feather reports for 100 feather o of Confirmed No. of Confirmed No. of Continued Marchanes 1 Natural Confirmed No. of Continued Santakana 1 No. of Continued ichedule ? rection ? 3 Water Supply Saryles Interruptions. ichedule 7 section 2.3 Planned Intercupitons Schoolule 7 specifier 2.3 Uniterment interportante IO BE ADVISED TO BE ADVISED TO BE ADVISED TO BE ADVISED

ions. When non complesed semples or enalgrass found, provide dutate of non complaints and activitization to ruchly the problem

Schedule 2 section 2.1 Non-Realth Malatad Standards water planting

No of samples

Non-heath related overly

No. of Persons 4:

1 January 2003 to 31 March 2003 13151 11691 Heath Bennett

3rd Quarter Report

Schedule 7 section 2.4 Water Supply Services - Drought Response Verfrüchtig for proprieto merk, type energing for grant deep mander of services afficient for the first termination of

December

September

Shedule Feestion 2.3 Water Supply Service Leaks and Hursts

|  | 17.2  |   | THE PERSON AND ADDRESS. | 100                |    |           |     | 100  |
|--|-------|---|-------------------------|--------------------|----|-----------|-----|--|
| Target: < 20<br>leaks or<br>bursts per<br>100 km of  | 420   |   | PERSONAL PROPERTY.      | BOY THE            | 7  |           |     |  |
| Taylut < 20 leaks or leaks or bursts per Leavyll of 100 km of mains forth  | 31178 |   |                         | Tolela             |    | 1061      |     | The state of the s |
| Fotel reports for  | . 57  |   | 1 77                    | L.                 |    | 111.      |     |  |
| 9  | 2     |   | a Color                 | Maria Anna Carraga |    | RO        | ī   |  |
| teaks and Burish leaks and Burish teaks and Burish teaks and Burish leaks and Burish for Resonder.  To Changes in the Changes in the State of State | 7     |   |                         | 1                  |    | 5         | æ å |  |
| Lusks and Hunts<br>for Jahmery   | 1     | -<br>-<br>-<br>-<br>-   | Person                  | T. C. C.           | ,  | 25        | ž   |  |
| I make good Blooming<br>for Deconition   |       |   | November December       |                    |    | 10.       | 픨   |  |
| Lauks and threats<br>for Parameter   |       |   | October                 |                    |    | 111       | =   |  |
| Lanks and Bursts<br>for October  |       |   | September               |                    | ,  | 2         | 19. |  |
| Leaks and Bornia<br>(or besterning)  |       |   | August 11 - 11          |                    | ;  | 3         | III |  |
|  |       |   | July 1. The state of    |                    | 3  |           | 1   |  |
| teaks and burse I wate and bursts (cash and bursts for Angust  |       | dnse  | June 1-7-13 (           |                    |    |           | 5   |  |
| Leaks and Bersto   |       | 3 - anterpency resp   | Merin                   |                    | •  |           | Ē.  |  |
| Laplace and Shares for<br>Mary 1   |       | Schedule 7 section 1 Telephone answering - emergency response | 1                       |                    | 2. |           | 3   |  |
| Leaks and Buryle<br>for April  |       | Schoolie / section  |                         |                    |    | Major Can |     | •  |

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1016 > 00%

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T.

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4th Quarter Report

Licensee: Aqwest Service: Water Supply

Perledi Mumber af Gennections Total: Mumber af Cennections Residential: Bubmilled by: Health Brimuti

100% 100% 100% Samples free of collisions and collisions and collisions and collisions and collisions are collisions and collisions and collisions are collisions and collisions and collisions are collisions are collisions are collisions are collisions and collisions are colli Microbiological quality To the second se

N of extendence within production of the control of No. of earnches Fair Committee of the No. Remoderates Chemistre question.

Committee of the No. Remodel Committee of the No. Of the State of the No. Of the State of the No. Of the State of the No. Of the hose: When non complest cemples or analyzes found provide defauls of non compleance and actual taken to recidy the problem

Beingdung 7 nagiligen 2.1 Mgm-Health Halatuti Standarda water quality

Resid No. of saintiffies | No. of analyses within | No. of analysis | No Non-health minned oualth

No. of Cariforned No. of Conferned Prossure and flow Pressure and flow fault reports for No. of Confirmed Presente and flow feed reputs for Jun No. of Confurned Pressure and time fault reports for No. of Confirmed Pressure and flow face reports for No. of Confirmed Presents and flow fault reports for Schodude I section 3.2 Water Supply Service pressure and flow No. of Continued Pressure and flow fault reports for No. of Confirmed
Pressure and flow fault fr
Import for Autum
S No. of Confirmed Pirmans and Row last reports for

the of Custimed To the testing the for Jun 2771 No. of Confermed No. of Contrined Schedule J section 2.3 Wains Supply Sarvice interropolium Ho. of Continued Interuptions > 1 hour for

Connecting 1 Number of

Total reports for 1

faul reports for

fare reports for

Protours and flow fault reports for No. of Confirmed

No. of Confirmed Pressure and flow

No. of Continued | Pressure and thore

Tubal repurts for 2

211 127 113

May

Total for

9

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April 1

13.63

Total har

2

from ful May

Total for

ğ

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April

March

February

AMMIN

December

tto, of Confessori fixansustantial statement of Confessorial statement of the confessorial state April Ē No. of Contained Interruptors > 1 fajor for Mar Maich February B. No of Contamed Ventral American Vames Vision But No. of Continued fractigations > 1 lear for Jan No. of Conferred Merruphins > 1 Ign. for Dec December 64 No. of Cuntimied Interuptions > 1 Full for Nev 180kmaray Ch Interruptions > 1 Besternüber 777 October No. of Confirmed Amenuption > 1 face for Sept Schudule 7 section 2.3 Planned Internal ALGUM No. of Confirmed American State Stat

February Anner 3 2 December 82 November October 69 Petrhenther Schools 7 perion 3.3 Undermore treatment of the content of the con

November October interruptions accepting 5 hour layer to the figure

Betreddes 7 ageting 7,4 Water Supply Sarvices - Drought Response
Restricting by Compining tree, type (soverly)
Market, start plant; purples of services
Alarized, start plant; purples of services

ichedule 7 section 2.3 Water Supply Service Leaks and Burst

Terpet: + PON. Reput.... burnts per 100 km of makes 1044 reports for Langth of 100 Toloh June Loaks and Bursts for June ž Loaks and Berals for May All A Leaks and Bushs for April Merch Looks and Burks for March 3 Lauka and Blends for Feb 티 Leaks and Busts for Jun 3 Leaks and Bursta for Leaks and Bursta November Movember October Leaks and Busin for October ğ Schedule 7 section 1 Telephone anawering - emergency response tooms in the factor of Superior Committee of Sup Leaks and Busts for Sept Leaks and Burse for August Lasta and Bursts L. No. May

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Wante

**Jones** Ov

### Six Monthly Report Licensee: Aqwest

Service: Water Supply

Period:

Number of Connections Total:

Number of Connections Residential:

1 January 2003 to 30 June 2003

13225

11929

**Customer Complaints** 

| Number of written complaints due for resolution in the previous six month period | Number of written complaints I arger 90.% of successfully resolved customers received within 21 days the service standard | Result |
|--|---|--------|
| 5  | 5 > 90%   | 100%   |

#### Customer Complaint Data

All Complaints

Complaints during the preceding six month period in the following categories

| Water Quality                  | ·   | 5 |
|--------------------------------|-----|---|
| Water Continuity interruptions | = - | 0 |
| Pressure or Flow               |     |   |
| Accounts                       |     | 0 |
| Other                          |     | 1 |

Complaint Resolution: of those complaints resolved in the preceding six months

|                                     | premier recontrol in and p |
|-------------------------------------|----------------------------|
| Resolved by simple explanation      | 0                          |
| Resolved by an apology by the       |                            |
| licensee                            | 1                          |
| Resolved by mediation or the        |                            |
| involvement of an independent third |                            |
| party                               | · · · o                    |
| Resolved by monetary                |                            |
| compensation                        | 4                          |
| Resolved by routine business        |                            |
| processes                           | 1                          |
| Resolved by other means             | 0                          |

Written complaints

| Total number of written complaints                   | 5 |
|--|---|
| Number of written complaints resolved within 21 days | 5 |
| Number of written complaints                         |   |
| resolved in greater than 21 days                     | 0 |

Number of complaints Outstanding (unrealized)

0 calculated

# **Annual Report**

Licensee: Aqwest

Service: Water Supply

Period:

Number of Connections Total:

Number of Connections Residential:

Services Provided By Agreement

| Number of services provided by agreement with agreement with agreement with documented agreements. |  |        |  |
|--|--|--------|--|
| Number of services previces previces previces provided by agreement with documented agreement      |  |        |  |
| nt documented agreement  | Number of services provided 90 per cent of customers |        |  |
|  | riave documented agreements                          | Result |  |
| 0  | %06< 0   | 100%   |  |

GNOperations/OWR Reports/Aqwest Ops Report 0304.xls

August Com Child Begins Total Color Target 9004 Result AT

Licensee: Aqwest
Service: Wase Bupply
Benice: Penice:
Number of Consections Tost:
11990
Humber of Consections Residentlati
Schoolule 7 section 2.1 Health Standards: Microbiological quality 0.000

|  | ;:- <del>-</del>  | Total controller of see reports for Connections of 13307   | Total a la  | Tutul (u) yeul 22 yeul B3t, | Total for your 70 at 2           |   | Yolal for year |  | Total tenger of 10 Peace 10 Pe | 7.20  | Ł <del>0</del> |   |
|--|---|--|--|-----------------------------|----------------------------------|---|----------------|--|--|---|----------------|---|
|  | :   | No. of Countement<br>Pressure and flow<br>last reposts for<br>Explesible   | No of Conference | September                   | September                        |   | September      |  | Lesks and Busts<br>for Suplectues  | August Control  |                |   |
|  |   | And Iterated Thates  No. of Confered  Pressure and fury fauti reports for  August  | No. of Gothuned<br>Internations > 1<br>Internations > 1  | August 15                   | August 74                        |   | August         |  | Lenks and Busts<br>for Aspest  | J. P. | 分              |   |
|  | _   | No. of Contrined<br>Pressure and flow<br>fault reports for   | No. of Confessor<br>Interspition > 1<br>Iour for July  | ylufy (1)                   | L9 And                           |   | Juty           |  | Leaks and Burts<br>for July  | June  | BC             |   |
| *** .<br>*** .   |   | No. of Conferned<br>Presure and flow<br>fault reports for<br>fants   | No. of Confirmed<br>Internations > 1<br>how for June 270   | 151<br>151                  | Jerre<br>113                     | , | O Armin        |  | Lanks and Busts for June 7   | May Policial  | 17             |   |
|  |   | No. of Confirmed<br>Pressure and flow<br>fault reports for<br>May O  | No. of Contempol<br>bliefupbles > 1<br>frow for May 70   | A A                         | Hay                              | -                                       | May            |  | Leaks and Busts<br>or May  | April : E.  | 67             |   |
|  |   | No. of Confirmed<br>Pressure and fow<br>feut reports for<br>April  | No. of Confirmed<br>Infortaptions > 1<br>hour for April  | April 13                    | April                            |   | April          |  | Leeke and Busis<br>for April   | March   | 501            |   |
| Result 100 DX 10 |   | No. of Confrmed Pressure and Boy fault reports for March   | Nu. of Conferned<br>Interruptions > 1<br>Incur for March   | Merch 14b                   | Merch 1: 3:135(42)               |   | Merch          |  | Leeks and Bursts<br>for March 2  | February State  | , ,            |   |
| 145   145   146    | Resun   | No, of Continued<br>Preserve and flow<br>Preserve and flow<br>February O   | No. of Confirmed<br>Indentation > 1<br>Iour for February   | February 85                 | 7ebruery 6.                      |   | Fabruary 0     |  | Leals and Burts for<br>February  | Viend   | 0.5            |   |
| 145   16   16   16   16   16   16   16   1   | unality % of analyses widtin Suddeline wakes Included in physy reputh   | o. of Confirmed<br>secure and flow<br>ull reports for<br>insury  | No. of Continued<br>Interruptions > 1<br>four for Jacoby<br>55   | Jenuery 84                  | January 25 - 5 515               |   | January        | POUTE-   | naka nyd Burita<br>c January<br>S  | se<br>cember  | 8              |   |
| Chemical yearing 140 Chemical yearing 140 Chemical yearing 150 Chemical  | No. of semples  | -  | .   그 히다!  | nber 90                     | , je                             |   | December       | Ices - Dicuphi Resi  | ce Leaks and Burst Leaks and Bursts for December 5   | November  | 102            |   |
| Colone 1 section 1 stand to the section of the sect | due 7 section 2.4 Non-Hearth Related Standards water quality  1. of souspeer widels  1. of | No. of Confirmed Pressure and flow last reports for November   | idile 7 estilon 2.3 Water Supply Service International Content of Content of the office December Newsman of the office December of the office of the offic | Morramoerr                  | March 1 2 Unpartner Interruption |   |                | duis 7 section 2.4 Water Supply Sarvices - Dicuphi Responding by topicity and 1, 5pt (eventy) (so it duis juntour of services) | duka 7 section 3.3 Water Supply Service Leaks and Burns  s and Burns Leaks and Busts for Leaks and Bursts Leaks and Surves Leaks Leaks  | 1 Telephane answering   |                |   |
| Comment of the commen | realist section 2.1   | If Confirmed to the section of the s | ofule 7 section of Centemed h uplans > 1 lot October   1 let October   1 let of october   1 let october   1 le | C)                          | 25.00                            |   | ALG.           | cuie 7 section<br>rations by spen<br>on, part data,  | edule 7 section  | dut Tection   |                | 1 |

No of Conikined Total Consistency (September 5) | Total Consistency (September 5) | Total Consistency (September 5) | September 5) | Septembe

ğ

Ξ

4th Quarter Report

Licensee: Aqwest Berker Wales Bushy Paide! Mumber of Connection Total: Number of Connections Raidental: Submitted by: Heath Berker!

| Schools 7 section 2.1 Health Standards: Microbiological quality  |                   |                      |  |           |
|--|-------------------|----------------------|--|-----------|
| THE XX   | Particular Supply | N. W. W. W. W. W. W. | 1000年1   | UNITED BY |
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| The second secon | 147               | 147                  | THE PARTY OF THE P | 100       |
| では、これでは、10mm   | 147               | 147                  | ST 478 107 197 187   | 200       |

|                            | Real William    | Compliance | Compliance  |
|----------------------------|-----------------|------------|-------------|
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| The second second          | No. of American | 0 11       | 0           |
|                            |                 |            | SECURITY OF |
|                            |                 | 7          |             |

Note: When non compliant complex or analyses found provide detats of non compliance and action taken to recity the problem

Schedule 7 section 2.9 Non-Health Related Standards water quality

|  | No. of Co<br>Preseura<br>(Bull repo  |
|--|--|
|  | No. of Confirmed<br>Pressure and flow  |
| ·  | No. of Confirmed. Preseure and flow of sulf reports for all flowers.   |
| Rough (1)  | No. of Confirmed<br>Pressure and flow<br>fault reports for   |
| The state of the s | No. of Confimed No. of Confimed No. of Confimed No. of Confimed State St |
| No. of samples   | No. of Confirmed<br>Presents and flow<br>fault reports for<br>Sorie  |
| Schooling   Access    | No. of Confined   No. of Con   |
| Schedule 7 section 2.2 Water   | No. of Confined  |
|  |  |

Mast Renera Dante

|  | T.J    | ı   |  |  |   |                |      |  |     |      |  |
|--|--------|---|--|--|---|----------------|------|--|-----|------|--|
|  | 1005   |   |  |  | 95.6%                                       |                |      |  |     |      |  |
| Target: % of customers received were service standard R  | > 00 B |   | Target: % of customers   | <u> </u>   |   |                |      |  |     |      |  |
| - 4 - 4  | 13225  |   | Target: %<br>customer  | A Service  | 22.8  |                |      |  |     |      |  |
| Targat: 9 Customer Incalving Number of service Connections standard  | 2      |   |  | Number of service<br>Corrections standard  | [2]   |                |      |  |     |      |  |
| No. of Confined Pressure and flow Total said reports for ', reports for Number of June Connection Connection   | ٥      |   | 1 min  | oports for   | 256   | Total for      | 1151 | 1  | 101 | 783  |  |
| infirmed<br>and flow<br>is for   | Ð      |   |  | 1  | 270   | 湯に             | 167  |  |     | =    |  |
| No. of Cor<br>Pressure i<br>fault report   |        |   | No. of Contranod (No. of Confirmed)  | Keompatone > 1. Neumpatone > 1. Semptone > 1. September of Bendon to the April to April to April 10 A  |   |                |      |  |     | 14.5 |  |
| and flow   | ٥      |   | JE WOOD  | Memptons > 1<br>zuerfor May  | 30  | 197            | 3    |  |     | -    |  |
| No. of Cu<br>Prossure<br>fault repo<br>May   |        |   | P. E. C.   | Interruption   |   | Nav.           |      |  |     |      |  |
| orfirmed<br>and flow<br>one for  |        |   | patage   | one v 1  | 2   | - 5            | C    |  |     |      |  |
| No. of C.<br>Pressure<br>fault rep.  |        |   | 20<br>20<br>20<br>20   | Mannatons hour for April   |   | And            |      |  |     |      |  |
| and flow   |        |   | rfimed   | - A - B  |   | 463: 7.1       | 2    |  | 西路  | 8    |  |
| No. of Co<br>Presents<br>fault rapo<br>March   |        |   | No. of   | Interruptions > 1 : hour for Mar   |   | March          |      |  |     |      |  |
| Confirmed<br>a and flow<br>outs for  | ٥      |   | No. of Continued No. of Confirmed  | Intenuptions > 1<br>frog for Feb   | -3  |                | 85   |  | 40  | 25   |  |
| No. of C<br>Preseur<br>(authrep<br>Feb   |        |   | Na. of C   | truenupi<br>Truer for  | 6   | February       | _    |  |     | 2    |  |
| onfirmed<br>and flow<br>itts for Jan   | -      |   | o, of Corfemed   | Interruptions in 11 Interruptions > 1  | d   | 1              | 2    |  |     | 27   |  |
| No. of C<br>Pressur<br>fault mp  |        |   | No. or C   | Interruptions > 1  |   | A STATE        |      |  |     |      |  |
| No. of Confirmed. Section of Present and flow Present and flow Present and Fault inports for its fault inputts.  |        |   | peutuuo<br>1/27  |  |   |                | ð    |  |     | 9    |  |
| No. of C<br>Preseur<br>fault rep<br>Dec  | 5      |   | , S  | _  |   | Decemb         |      |  |     | 74   |  |
| and flow<br>tra for  |        |   | infirmed *   | - A  | •   | 17:5           | 9    |  |     | 9    |  |
| No. of Co<br>Pressure<br>fault repo<br>Novembe   |        |   | , 5<br>2<br>2<br>3   | ndemode<br>Tole for  |   | 4. Novemb      |      |  |     |      |  |
| infirmed<br>and flow<br>to for   |        |   | pomp   |  |   | 福林             | 43   |  |     | 62   |  |
| No. of Co<br>Presents<br>fault repo<br>October   |        |   | 7<br>0<br>0  | haempto<br>how for O   |   | October        | -    |  |     |      |  |
| Mo. of Confirmed   No. of Co | -      | till all s  | High Contined to Contined Na of Contined Na of Contined to Contine | Interpotions > 1 tour for interruptions > 1. I Interruptions > | 9   | e l' il Octobe | 2    |  |     | 99   |  |
| No. of C.<br>Present<br>faut repo  |        | co Interes  | 2<br>2<br>2  | Infortuption<br>Town for S   |   | Servemb        |      | Inn  | 音を表 |      |  |
| Section 1  |        | iply Serv   | - T  | Nor loc  | initation in                                | 7              | 9    | direction                                    |     | S    |  |
| Communication of the second  |        | Water Su  | 0  | 2.5  | January k                                   |                |      | Inglanne                                     |     |      |  |
| 2 16<br>2 16   | -      | c1lon 2.3   | 验  |  | tion 7.3 F                                  | 夏              | 2    | tion 2.3                                     |     | 2    |  |
| 3  |        | Schedule 7 section 2.3 Water Supply Service Interruptions | 0.00   |  | Schadule 7 section 2.3 Planned Interruption |                |      | chedise 7 section 2.3 Unplanned Interruption |     |      |  |
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| experiencing | more than 3 | December 1 | Interespitons | exceeding ! ham |  |

Schwidze 7 sector 2.4 Water Supply Services - Drough Response Report (N. 1971) Water (M. 1972) (No. (sector)) Ordering Services (N. 1971) (Services (N. 1972))

Schedule 7 section 2.3 Water Supply Service Leaks and Bursts (1997) 1957-1958 (1997) 1957-1957

| <u> </u>                                   | 17.5 | ₩.                                    |
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) Licence 5V4qwa? -loudy

1003, 20.

| Licensee: Aqwest<br>Service: Water Bupply<br>Patiod:<br>Number of Connections Total:<br>Number of Connections Besterites | 1 July 2003 to 30<br>13307 | July 2603 to 30 September 2003<br>13367 |   | <del>-</del> |        |
|--|----------------------------|---|---|--------------|--------|
| Submitted by:  | H. Bennett                 |   |   |              |        |
| Section 1 - Schedule 7 section 2.1 Health Standards: Microbiological quality   | 1 Standards: Micro         | shlotogical quality                     |   |              |        |
|  | No. of uamples             | Samples free of coliforms and amoeta.   | POT 1                                   |              |        |
| Total Costonne Metal Ships Mark Lives 1971   | 148                        | 148                                     | 100 A A A A A A A A A A A A A A A A A A | 96           | 100 PK |
| Thermotolerand Colliginal School   | 148                        | 148                                     | 178 C 188                               | 86           | 100 PX |
| Amoeba (Thermophilic Needleria)  | 148                        | 148                                     | 125 C. S. og 12 to 28                   | 8            | ×6 00  |

Section 2 - Schoolub 7 section 21 Health Standards; Chemical quality

- Section 2 - Schoolub 2 Section 21 Health Standards; Chemical quality

Chemical Dealth Misted 21 Section 2 Section

When non compliant samples or analyses found provide details of non compliance and action taken to recisy the problem

|                     | Ŀ              | ŧ  |
|---------------------|----------------|--|
| lands water quality | eujepino ujuje |  |
| th Related Stand    |                | 1  |
| on 2.1 Non-Heat     | 40,743         |  |
| Chadule 7 section   | <b>1995年</b>   | 100 mar 100 ma |
| Bection 3 - 5       |                |  |

No. of Confumed Pressure and flow fault reports for No of samples (yahies) property (solution) Fig. of Confirmed Presente and Now fault reporte for Section 4 - Schedute 7 section 2.2 Water Supply Service pressure and flow Non-health related cuality No of Confirmed
Pressure and flow IN
fault reports for
Pressure

Pressure and Bow fault reports for 1 No of Confirmed No. of Continued
Pressure and flow
Pressure and flow fault feuil reports for
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December

No. of Confirmed Interruptions > 1 hour fur Merch No. of Confirmed Mr tributupitone > 1 in lipur fur Fetavany II No of Contumed No. of Contumed No. of Longing No. o Section 5 - Schedule 7 section 2.3 Water Supply Service Interruptions ection 6 - Schothie 7 section 2.3 Planned Intertritions No. of Confirmed Interruptions > 1 truer for November No. of Confirmed Internstations > 1 Inches of Courses Inches of Courses Inches 
Total reports for Number of series Year Commenters at 13302

No of Confumed led

No of Confirmed 140, of Confirmed 140, of Confirmed 140 of Confirmed 140 of Confirmed 140 of

No. of Continued Interruptions > 1 Indut for April

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Total for

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March College April

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Section 7 - Schedule 7 auction 2.3 Unplanned Interruptions
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Concepting 19 19 3 Auction 2.3 Unplanned Interruptions

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March February Interruptions
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Colober Military
Movember bection 8 - No of

Section B. Schedule T section 2.4 Water Supply Services - Drought Response
Resiridate by operating area, type
(severby darabon; seaf date, number of
services sifuated.

Section 10 - Schedule 7 section 2.3 Water Supply Service Leaks and Burets をおける (数は)

| <del>\}_</del> =   |       | l  | 1                 | Ě                 |              |            |                                       |  |
|--|-------|--|-------------------|-------------------|--------------|------------|---------------------------------------|--|
| Instead<br>Durals per<br>100 km of   | 337.8 |  | MITTER            | * 0-01-14         |              | 465 40 V V | , , , , , , , , , , , , , , , , , , , |  |
| -engili of   | 332.8 |  |                   |                   | •            | 1083       | 1083                                  |  |
| Total<br>reports for I   | gg    |  |                   | Barx Tolk         |              | 5          | 3                                     |  |
| Bursts 14  | ক     |  | $\mid$            |                   |              | 3          | 9                                     |  |
| Leaks and<br>lor Sephen  | 7     |  |                   | Acquist           |              |            |                                       |  |
| Lunka aral Untula<br>Kat Anglasi   |       | 4.   |                   | - Ally            |              | 32         | <b>£</b> I<br>:                       |  |
| sake and Burate<br>or July   | 7     | i.   |                   | au.               |              | CIA C      |                                       |  |
| Leaks and flurets   Leaks and Bursts   Leaks and Bu | 1     | ***  |                   | N                 | F            |            | 1                                     |  |
| Looks and Bursts<br>for May  |       |  | 4                 |                   | ţ.           |            | ĮĮ.                                   |  |
| Leake and Busts<br>for April   |       |  | Hamb              | METVO             | 101          |            | 1                                     |  |
| Lesks and Bunks<br>for March   | 7     |  | February          | 11221             | OØ           |            | 75                                    |  |
| Leaks and Suists<br>for February   |       |  | Jacobson          |                   | C6           |            | (1)                                   |  |
| Leaks and Bunds<br>for Jenuary   |       | MINERSY FEEDOMS  | December          |                   | \$           |            | 3                                     |  |
| Leaks and Bursts<br>for December   |       | one answering - en   | November          |                   | 201          |            | 701                                   |  |
| Leaks and Burse (Leaks and Burse for Leaks and Burse Leaks and Burse for Ceaks and Burse for Codobyr (Marken Leaks and Burse for December )  |       | Section 11 - Schedule 7 section 1 Telephone answaring - emegancy r | Ootober 1:        |                   | 111          |            |                                       |  |
| Leeks and Bures for October  |       | Section 11 - Sched   | Month of the Pub. | No. of Oaks Lary. | The state of | 1000       | To the second                         |  |

Rettil

port 030 15VAqwt O\\$ruops

1 October 2003 to 31 December 2003 13347 --1207 t H. Bennett 2nd Quarter Report Licensee: Aqwest Servica: Wake Supply Period: Number of Connections Total: Number of Connections Residential: Submitted by:

Section 1 - Schedule 7 section 2.1 Health Standards: Microbiological quality

|                   | 1    |                     |      |
|-------------------|------|---------------------|------|
|                   | 100% | 100%                | %00t |
|                   | 8    | State of the second | 56   |
| 情報                | 35   | 150                 | 150  |
| Samples framework | 150  | 150                 | 150  |
|                   |      | 100                 | 1.0  |

| dhán<br>Riganak                        | 100%                                      |   |
|--|---|---|
| % of analyses within<br>Opticine yakes | 100%                                      | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |
| No. of samples                         | 7 264                                     | ,                                       |
| HELDANDAN SEE THE COLUMN               | ical - hyrality (wished factor-dules 3.4) |   |

Note: When non compliant persport or analyses found provide details of non compliance and action taken to recitly the problem

|   | _                             |   | No. of Confirmed<br>Presente and flow<br>fault reports for   |
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| ith Related Stand<br>No. of samples   | 310                           | milit Service pres  | No. of Confirmed<br>Pressure and flow<br>fault reports for<br>March  |
| estion 3 - Expedits 7 section 3.1 Non-teatth Related Standards water quality for the properties of the foreign of the section | Bushy ferhedde 3,2 & wa       | acilun 4 - Schadule ? gacilun 2 2 Wein; Supply Surule prepaire and flum | ₹ .  |
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| Section 6 - Scheu           | tion 6 - Schedule 7 section 2.3 Planned                                | 1 Intersuptions     |                |                        |  |                   | 7000              |                    |                 |  |  | COC       | 17367                | C/4         | ٦ |
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| đ                           | 4  | 148                 | 2              | 3                      | 157                                      |                   | 61                | 22                 | 1               |  | December   |           |                      |             |   |
| Section 7 - Schen           | tion 7 - Schedule 7 section 2.3 Unplanned                              | and interruptions   |                |                        |  |                   |                   |                    |                 |  | 3  | 000       |                      |             |   |
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Begilon B - Schedule 7 section 2.4 Water Supply Services - Drought Response
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| aks and Bursts       |   |
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| Supply Service Le    |   |
| section 2.3 Water    |   |
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|--|---|-------------------|------|--|
| Result   | 2   |                   |      | 7001<br>7001   |
| Yangati < 20<br>leaka or<br>tanala per<br>100 km of<br>melea   | <b>8</b>  | Parish a Boar     |      | ***  |
| .origita af  | 326   | Total             |      | 1102   |
| Total<br>reports for 1   | 05  | ,                 |      | =  |
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| Leaks and Busts<br>(or flowants)   |   | Octobur           | 120  | (2)  |
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| oake and Busta L   |   | 1                 | £    | รูม  |
| take and Busts   | 1   | 608               | Off  | <b>H</b>   |
| Total   Tota | 1   | ,                 | 7.   |  |
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| Leaks and Busts Leaks and Busts Leaks and Busts for Mends  | ency response   | Medi              | 103  | 501  |
| Leaks and Bursta L   | seme - Bujawans e   | Felwaury          | 3    | KIR  |
| Leeks and Bures Leeks and Bures for for January  | 1 - Schedule 7 section 1 Telephone suspening - emergency response | L. Canal          | EB.  | Υά   |
| Leaks and Bures Life for Jenuary   | Section 11 - Schedu   | Moon to Little 1. |      | No. of sale Use of the Control of th |

# Six Monthly Report Licensee: Aqwest

Service: Water Supply

Period:

Number of Connections Total:

Number of Connections Residential:

1 July 2003 to 31 December 2003

13387 12071

**Customer Complaints** 

| Number of written complaints due | successfully resolved within 21 days | Target: 90: % of:<br>customers received:<br>the service standard | Result |
|----------------------------------|--------------------------------------|--|--------|
|                                  | 2                                    | >90%   | 100%   |

# Schedule 2 section 2 Customer Complaint Data All Complaints

Complaints during the preceding six month period in the following categories

|                                | F  |
|--------------------------------|----|
| Water Quality                  | 18 |
| Water Continuity interruptions | 0  |
| Pressure or Flow               | 20 |
| Accounts                       | 0  |
| Other                          | 2  |

Complaint Resolution: of those complaints resolved in the preceding six months

| Resolved by simple explanation | 3  |
|--------------------------------|----|
| Resolved by an apology by the  |    |
| licensee                       | ol |
| Resolved by mediation or the   |    |
| involvement of an independent  |    |
| third party                    | 1  |
| Resolved by monetary           |    |
| compensation                   | 2  |
| Resolved by routine business   |    |
| processes                      | 34 |
| Resolved by other means        | 0  |

Written complaints

| Total number of written complaints | 3   |
|------------------------------------|-----|
| Number of written complaints       |     |
| resolved within 21 days            | . 2 |
| Number of written complaints       |     |
| resolved in greater than 21 days   | 1   |

| Number of complaints outstanding | 0 |
|----------------------------------|---|
| (unresolved)                     |   |

# Six Monthly Report Licensee: Aqwest

Service: Water Supply

Period:

Number of Connections Total:

Number of Connections Residential:

1 January 2003 to 30 June 2003

13225 11929

**Customer Complaints** 

| Number of written complaints due for resolution in the previous six | successfully resolved | Target 90% of customers received the service standard | Result |
|---|-----------------------|---|--------|
| 5   | 5                     | >90%  | 100%   |

#### Customer Complaint Data

All Complaints

Complaints during the preceding six month period in the following categories

| Water Quality                  | 17 |
|--------------------------------|----|
|                                | 1/ |
| Water Continuity interruptions | 0  |
| Pressure or Flow               | 32 |
| Accounts                       | 0  |
| Other                          | 1  |

Complaint Resolution: of those complaints resolved in the preceding six months

| Resolved by simple explanation | O  |
|--------------------------------|----|
| Resolved by an apology by the  |    |
| licensee                       | 1  |
| Resolved by mediation or the   |    |
| involvement of an independent  |    |
| third party                    | 0: |
| Resolved by monetary           |    |
| compensation                   | 4  |
| Resolved by routine business   |    |
| processes                      | 45 |
| Resolved by other means        | 0  |

Written complaints

| Total number of written complaints | 5 |
|------------------------------------|---|
| Number of written complaints       |   |
| resolved within 21 days            | 5 |
| Number of written complaints       |   |
| resolved in greater than 21 days   | 0 |

Number of complaints Outstanding (unreolved)

0 calculated

Reaut Length of meins (km) r 326 St. Imiber of Total for year Total reports for Year Total reports for March 5.9 Ittalfor year Total reports for year March No of Confirmed Prevalue and Row Fault reports for Ito. of Confumed.
Interuptions > 1
hour for March trake and Burals for March Jenuny 14 Cabinary March February Interruptions > 1 Hour for February 1 Na of Cunfirmed December January February 60 Leuks and famels it January No of Confirmed No of Confirmed In Interruptions > 1 Interruptions > 1 Interruptions > 1 Interruptions > 1 Interruptions > 1 Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | Interruptions | I Leubs and finests for January 7) Dievember 81 December 104 No of Confirmed Pressure and flow fault reports for t auks mid Bunts for December No of Conflimed Interruptions > 1 from for Leaks and Burds 1 November 74 October No of Confumed friterreptions > 1 hour for October Leaks and Bursts for October 22 October Beptember 74 September Dolober Note: When non-compliant samples or analyses found, provide details of non-compliance and action Likeri to recitly the problem No of Confirmed Pressure and flow fault reports for No of Confirmed Hiteirupilors > 1 Nour for Laska sod Burele for September 93) August Scidember September No. of Confirmed Presente and flow fault reports for No. of Confirmed Interruptions > 1 hour for August Lasks and Busin for August 100%, compliante August NADWESTNTONCompany/Operations/OWR Reports/Aqwest Dus Report 0104 xls No. of hamples (within guideline, y) Result isection 3 - Schoolub 7 section 2.1 Non-tisath Related Standards water quality

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Ap Leaks and Burnie ! (or July ection 9 - Schedule 7 section 2.4 Water Supply Services - Orought Response ections 1 . Schadule 7 section 1 Talephone answering - emangency response Bection 4 - Schodule 7 section 2.2 Water Supply Beryke pressure and Bow tection 10 - Schedule 7 section 2.3 Water Supply Service Leaks and Burets Section 2 - Exhedule 7 section 2.1 Health Sundards: Chemical quality Section 5 - Schedule 7 section 2.3 Water Supply Service Interruptions Section 6 - Schoolule 7 section 2.3 Planned Interruptions ADM 13 May June 10 June 1659 Aptil | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks | Jacks No of Confirmed how for Interruptions > 1
May how for Interruptions > 1
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Baction 1 · Schodule 7 section 2.1 Health Standards: Microlisiopical qualin

11947 Gary Hallaworth

Period: Number of Connections Total: Number of Connections Residential: Submitted by:

Licensee: Aqwest Denke: Water Buppy

4th Quarter Report Licensee: Aqwest Service: Waise Supply Feited: Number of Commercions Testi: Number of Commercions Residentia: Submitted by: Concen Stocken

1 April 2004 to 30 June 2004 13516 E2165

Section 1 - Achedule 7 section 2.1 Health Standards: Migratiological quality

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|--|--------------------|----------------------------|--------------------------------|
| Target   | 08                 | Çe .                       | ,,,                            |
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|                        |                  | Result              | Compliance  | Compliance   | Complance  |   |
| Allend                 | in analyses with | uideline trakes . 5 | 89          | 83   |  |   |
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Note: When non compliant gamples or analyses hound provide details of non compliance and action taken to recify the problem

Section 3 - Schedule 7 section 2.1 Non-like th Related Standards water quality

No. of verrows Non health related exalter

| No. of Present   |
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| No. of Confirmed Pressure<br>Pressure and flow Teaf ref  |
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| Supply Service pressure and flow<br>No. of Commed. (No. of Coloring)<br>Pressure and Bon! Pressure and Bon!<br>Item reports for 1 leud reports for<br>Sept.  |
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Total Number of System in 135.14

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raer DBC

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Total for

April

| hection 5 - Sche                                      | Begffan 5 - Behedule ? naeilun 2,3 Weier Supply Service interegulune   | buppily Service fitte                                  | • inflittion   |  |                                      |                                      | _                | <b>=</b>   | _                                     | .="<br>                               |                          |         |
|---|--|--|--|--|--------------------------------------|--------------------------------------|------------------|--|---------------------------------------|---------------------------------------|--------------------------|---------|
|   |  |  |  |  |                                      |                                      |                  | !  |                                       |                                       | 1                        |         |
| No. of Confirmed<br>Interruptions > 1<br>hour for Ady | Ho. of Continued. No. of Continued Ma. o | No. of Conferred<br>Interruptions > 1<br>four for Sept | No. of Confirmed .<br>Interruptions > f.   | No. of Conferned<br>Interruption & 1   | No. of Confirmed<br>informations > 1 | No. of Confirmed<br>Interuptions > 1 | No. of Conferred | No of Confined<br>interruptions > 1  | No. of Confirmed<br>Interruptions > t | No. of Confirmed<br>litternutions > 1 | No. of Confirmed         | 78      |
| 5   | 30   | 136  | -  | 100  | TOTAL TOT LINE                       | HOLE TON JAIN                        | hour for Feb     | lians for Mat  | hour for April                        | hour for May                          | Ger for Lan              | 1       |
| Section 6 - Scher                                     | dule? section 2.3 Planned  | i Infastrepilarea                                      |  | 4  | 10                                   | 747                                  |                  | - 501 FO FO FO FO FO FO FO FO FO FO FO FO FO   | 105                                   | 11                                    | J                        | è       |
|   | _  |  |  |  |                                      |                                      |                  |  |                                       |                                       |                          |         |
| dat.  | August   | Bujrleyikbar   | October  | November   | Оесептрег                            | Jennery                              | Tatanaara .      |  |                                       |                                       |                          | ole for |
| bertignt ? - Befredigh ? pretign ?                    | T.Vinden   | ng<br>Punisaryad interresting                          | May 1971 The state of the state | Ē  |                                      | FC                                   | 5                |  |                                       |                                       | Sal Junia fill 1991. Thy | TH. Th. |
| Zerty.  | August   | Sectionship  | 0.56   | The state of the s |                                      |                                      |                  | The state of the s |                                       |                                       |                          |         |
| -   |  | 74 78  | 70 00 CVENTER TALE TALE TO THE COLUMN TO THE PROPERTY MARCINE AND JUNE   | 74   | Percentition of                      | - Xianan                             | Lahinery         | Merch  | April                                 | May                                   | 100                      |         |
|   |  |  |  |  |                                      |                                      | <b>三</b>         | 6  | 2                                     | Š                                     | ě                        | ABC     |

October unplanned interruptions exceeding 1 hour Section & · No of customers

Battlen 8. Sthydule 7 pacifon 3.4 Weter Supply Services - Droughi Response Residence by operating ents, type (evertry) Residence, ben't deep, pumper et syrvess Batterjet, ..., (1), 4. (2), 31;

Section 10 - Schedule Terction 2.3 Water Supply Barylce Leaks and Bursts

|                              |  |                             |  |          |                 |                 |                  |  |                  |                  | -              |       |      | Taupet: < 20       |             |
|------------------------------|--|-----------------------------|--|----------|-----------------|-----------------|------------------|--|------------------|------------------|----------------|-------|------|--------------------|-------------|
| Leaks and Bursts<br>for July | Léaba and Burts for<br>August  | Lesks and Burth<br>for Sept | Leaks and Bursts Leaks and Bultster<br>for Sept. for October | Leaks an | Leaks and Burgs | Leaks and Busts | Loaks and Burals | Durche fon Leaks and Burets Leaks and Bunto Leaks and Burets Leaks and Burets Leaks and Durch Leaks and Burets Income for Income for Income of | Lesks and Bursts | Lesks and Burels | coke and Busta | Total | 100  | bunk per           | <del></del> |
|                              |  |                             |  | _        | 7               | uar an          | ior retu         | for March  | los Azni         | for May          | or June        | Jue   |      | 200                | _           |
|                              |  |                             |  |          |                 |                 | ,                |  | 7                | 2                |                |       |      | ľ                  |             |
| Section 11 - Sche            | Section 11 - Schedule 7 section 1 Telephone anawaring - emergency teaponse   | ine answering - em          | ergency teaponse   |          |                 |                 |                  |  |                  |                  |                |       |      | 177                | 124         |
| Month                        | 4  | Antonia                     | 1,0  |          |                 |                 |                  |  |                  |                  |                | į     |      | i                  |             |
| No of Call                   |  |                             |  | Conpet   | Newmer          | Osc             | Jus              | fri  | Merch            | And              | 14.            |       |      |                    |             |
| security as                  |  |                             |  |          |                 |                 |                  |  |                  |                  |                |       | No.  | Target > BO% Newal | 100         |
| INDOORS WITH                 |  |                             |  |          |                 |                 |                  |  |                  |                  |                |       |      |                    |             |
| one hour                     |  | 2                           | - T  | -        | 5               | •               |                  |  |                  |                  |                |       |      | _                  |             |
| No. of calls                 |  |                             |  |          |                 | ă               | 3                | 20   | Í                | 67               | 12             | EIG.  | 101  | _                  |             |
| 1 a Calvand a                |  |                             |  |          |                 |                 |                  |  |                  |                  |                |       |      | 1                  |             |
| - Little will the            |  |                             |  |          |                 | -               |                  | _  |                  | -                |                |       |      |                    |             |
| Date hour                    | ·c   | 7                           | 7.7  | Ξ        | 201             | -74             |                  |  |                  | _                | -              | _     |      |                    |             |
| Ş                            | G Moeralization Deposite the Company of the Company | OLD Dance Of the            |  |          |                 |                 |                  | 2  | CO1              | 49               | -              | 34    | 9000 | Prof.              | -           |

# Six Monthly Report Licensee: Aqwest

Service: Water Supply

Period:

Number of Connections Total:

Number of Connections Residential:

1 January 2004 to 30 June 2004

13516 12185

**Customer Complaints** 

| -                                  | Number of written     | 1 88 12 8 7         | - with wife, again   |
|------------------------------------|-----------------------|---------------------|--|
| Number of written complaints due   | complaints            | Target 90 % of      |  |
| for resolution in the previous six | successfully resolved | lountomana saastuud | 「「「「「「Adding and Adding and Add |
| month period                       | within 21 days        |                     | Result   |
|                                    |                       | >90%                | 100%   |

**Customer Complaint Data** 

All Complaints

Complaints during the preceding six month period in the following categories

Water Quality

1

| 0 |
|---|
|   |
| 0 |
|   |

Complaint Resolution: of those complaints resolved in the preceding six months

| Resolved by simple explanation | 0                                     |
|--------------------------------|---------------------------------------|
| Resolved by an apology by the  |                                       |
| licensee                       | n                                     |
| Resolved by mediation or the   |                                       |
| involvement of an independent  |                                       |
| third party                    | O                                     |
| Resolved by monetary           |                                       |
| compensation                   | 1                                     |
| Resolved by routine business   | · · · · · · · · · · · · · · · · · · · |
| processes                      | o                                     |
| Resolved by other means        | 0                                     |

Written complaints

| Total number of written complaints | o  |
|------------------------------------|----|
| Number of written complaints       |    |
| resolved within 21 days            | 1  |
| Number of written complaints       |    |
| resolved in greater than 21 days   | ol |

Number of complaints Outstanding (unreolved)

0 calculated

**Annual Report** 

Licensee: Aqwest

Service: Water Supply

Number of Connections Total: Number of Connections Residential:

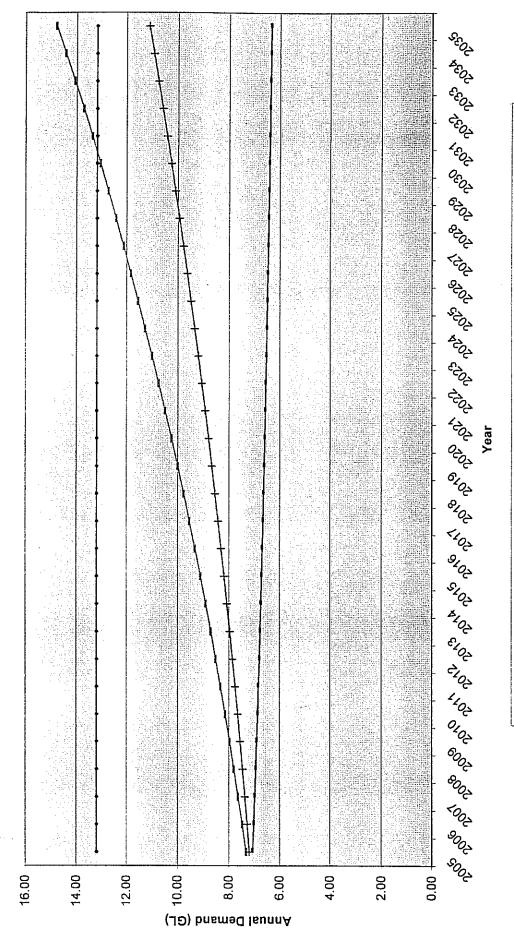
Services Provided By Agreement

| X  |  |                          |        |
|--|--|--------------------------|--------|
| growth of the control |  | • 1                      |        |
|  | Number of services provided 90 per cent of customers | 90 per cent of customers | -      |
| mber of services provided   by agreement with  |  | have documented          |        |
| agreement  | documented agreements                                | agreements               | Result |
| 0  | 0  | %06<                     | 100%   |
|  |  |                          |        |

## AQWEST - BUNBURY WATER BOARD Forecasted Total Services and Demand (kL) period 2005 to 2035

|      |    |       |          |       |         | Average | Min    | Max    |            |         |      |        |
|------|----|-------|----------|-------|---------|---------|--------|--------|------------|---------|------|--------|
|      |    |       | Services |       | KI/     | Demand  | Demand | Demand | Avail.     | Avg PDD |      |        |
| Year | No | Avg   | Min      | Max   | Service | (GL)    | (95 %) | (95 %) | Allocation | (ML)    | (ML) | Max PD |
| 2005 | 28 | 14200 | 13945    | 14455 | 506     | 7.19    | 7.06   | 7.32   | 13.20      | 35.9    | 35.2 | 36.5   |
| 2006 | 29 | 14592 | 14073    | 14987 | 499     | 7.28    | 7.02   | 7.47   | 13.20      | 36.3    | 35.0 | 37.3   |
| 2007 | 30 | 14994 | 14202    | 15538 | 491     | 7.37    | 6.98   | 7.63   | 13.20      | 36.7    | 34.8 | 38.1   |
| 2008 | 31 | 15408 | 14332    | 16110 | 484     | 7.46    | 6.94   | 7.80   | 13.20      | 37.2    | 34.6 | 38.9   |
| 2009 | 32 | 15833 | 14463    | 16703 | 477     | 7.55    | 6.90   | 7.97   | 13.20      | 37.7    | 34.4 | 39.7   |
| 2010 | 33 | 16269 | 14595    | 17317 | 470     | 7.65    | 6.86   | 8.14   | 13.20      | 38.2    | 34.2 | 40.6   |
| 2011 | 34 | 16718 | 14728    | 17955 | 464     | 7.75    | 6.83   | 8.33   | 13.20      | 38.7    | 34.1 | 41.5   |
| 2012 | 35 | 17179 | 14863    | 18615 | 457     | 7.86    | 6.80   | 8.51   | 13.20      | 39.2    | 33.9 | 42.5   |
| 2013 | 36 | 17653 | 14999    | 19300 | 451     | 7.96    | 6.77   | 8.71   | 13.20      | 39.7    | 33.7 | 43.4   |
| 2014 | 37 | 18140 | 15136    | 20010 | 445     | 8.07    | 6.74   | 8.91   | 13.20      | 40.3    | 33.6 | 44.4   |
| 2015 | 38 | 18640 | 15275    | 20747 | 439     | 8.19    | 6.71   | 9.11   | 13.20      | 40.8    | 33.5 | 45.4   |
| 2016 | 39 | 19154 | 15415    | 21510 | 434     | 8.30    | 6.68   | 9.33   | 13.20      | 41.4    | 33.3 | 46.5   |
| 2017 | 40 | 19683 | 15556    | 22302 | 428     | 8.42    | 6.66   | 9.54   | 13.20      | 42.0    | 33.2 |        |
| 2018 | 41 | 20225 | 15698    | 23122 | 423     | 8.55    | 6.63   | 9.77   | 13.20      | 42.6    | 33.1 | 48.7   |
| 2019 | 42 | 20783 | 15841    | 23973 | 417     | 8.67    | 6.61   | 10.00  | 13.20      | 43.2    | 33.0 | 49.9   |
| 2020 | 43 | 21356 | 15986    | 24855 | 412     | 8.80    | 6.59   | 10.24  | 13.20      | 43.9    | 32.8 | 51.1   |
| 2021 | 44 | 21945 | 16133    | 25770 | 407     | 8.93    | 6.57   | 10.49  | 13.20      | 44.5    | 32.7 | 52.3   |
| 2022 | 45 | 22551 | 16280    | 26718 | 402     | 9.07    | 6.55   | 10.74  | 13.20      | 45.2    | 32.6 | 53.6   |
| 2023 | 46 | 23173 | 16429    | 27701 | 397     | 9.20    | 6.53   | 11.00  | 13.20      | 45.9    | 32.5 | 54.9   |
| 2024 | 47 | 23812 | 16579    | 28721 | 392     | 9.35    | 6.51   | 11.27  | 13.20      | 46.6    | 32.4 | 56.2   |
| 2025 | 48 | 24469 | 16731    | 29778 | 388     | 9.49    | 6.49   | 11.55  | 13.20      | 47.3    | 32.4 | 57.6   |
| 2026 | 49 | 25143 | 16884    | 30873 | 383     | 9.64    | 6.47   | 11.83  | 13.20      | 48.1    | 32.3 | 59.0   |
| 2027 | 50 | 25837 | 17038    | 32009 | 379     | 9.79    | 6.46   | 12.13  | 13.20      | 48.8    | 32.2 | 60.5   |
| 2028 | 51 | 26549 | 17194    | 33187 | 375     | 9.94    | 6.44   | 12.43  | 13.20      | 49.6    | 32.1 | 62.0   |
| 2029 | 52 | 27282 | 17352    | 34408 | 370     | 10.10   | 6.42   | 12.74  | 13.20      | 50.4    | 32.0 | 63.5   |
| 2030 | 53 | 28034 | 17510    | 35674 | 366     | 10.26   | 6.41   | 13.06  | 13.20      | 51.2    | 32.0 | 65.1   |
| 2031 | 54 | 28807 | 17670    | 36987 | 362     | 10.43   | 6.40   | 13.39  | 13.20      | 52.0    | 31.9 | 66.7   |
| 2032 | 55 | 29602 | 17832    | 38348 | 358     | 10.59   | 6.38   | 13.72  | 13.20      | 52.8    | 31.8 | 68.4   |
| 2033 | 56 | 30418 | 17995    | 39759 | 354     | 10.77   | 6.37   | 14.07  | 13.20      | 53.7    | 31.8 | 70.2   |
| 2034 | 57 | 31257 | 18160    | 41222 | 350     | 10.94   | 6.36   | 14.43  | 13.20      | 54.6    | 31.7 | 71.9   |
| 2035 | 58 | 32119 | 18326    | 42739 | 346     | 11.12   | 6.34   | 14.80  | 13.20      | 55.4    | 31.6 | 73.8   |
| 2036 | 59 | 33005 | 18494    | 44312 | 342     | 11.30   | 6.33   | 15.17  | 13.20      | 56.4    | 31.6 | 75.7   |
| 2037 | 60 | 33915 | 18663    | 45942 | 339     | 11.49   | 6.32   | 15.56  | 13.20      | 57.3    | 31.5 | 77.6   |
| 2038 | 61 | 34851 | 18833    | 47633 | 335     | 11.68   | 6.31   | 15.96  | 13.20      | 58.2    | 31.5 | 79.6   |
| 2039 | 62 | 35812 | 19006    | 49386 | 332     | 11.87   | 6.30   | 16.37  | 13.20      | 59.2    | 31.4 | 81.6   |
| 2040 | 63 | 36800 | 19180    | 51203 | 328     | 12.07   | 6.29   | 16.79  | 13.20      | 60.2    | 31.4 | 83.7   |
| 2041 | 64 | 37815 | 19355    | 53087 | 325     | 12.27   | 6.28   | 17.23  | 13.20      | 61.2    | 31.3 | 85.9   |
| 2042 | 65 | 38858 | 19532    | 55040 | 321     | 12.48   | 6.27   | 17.67  | 13.20      | 62.2    | 31.3 | 88.1   |
| 2043 | 66 | 39929 | 19711    | 57066 | 318     | 12.69   | 6.26   | 18.13  | 13.20      | 63.3    | 31.2 | 90.4   |
| 2044 | 67 | 41031 | 19891    | 59166 | 314     | 12.90   | 6.25   | 18.61  | 13.20      | 64.3    | 31.2 | 92.8   |
| 2045 | 68 | 42162 | 20073    | 61343 | 311     | 13.12   | 6.25   | 19.09  | 13.20      | 65.4    | 31.1 | 95.2   |
| 2046 | 69 | 43325 | 20257    | 63600 | 308     | 13.34   | 6.24   | 19.59  | 13.20      | 66.5    | 31.1 | 97.7   |
| 2047 | 70 | 44520 | 20442    | 65940 | 305     | 13.57   | 6.23   | 20.10  | 13.20      | 67.7    | 31.1 | 100.2  |
| 2048 | 71 | 45748 | 20629    | 68367 | 302     | 13.80   | 6.22   | 20.63  | 13.20      | 68.8    | 31.0 | 102.8  |
| 2049 | 72 | 47010 | 20817    | 70882 | 299     | 14.04   | 6.22   | 21.17  | 13.20      | 70.0    | 31.0 | 105.5  |
| 2050 | 73 | 48306 | 21008    | 73491 | 296     | 14.28   | 6.21   | 21.72  | 13.20      | 71.2    | 31.0 | 108.3  |

**Forcasted Annual Demand** 

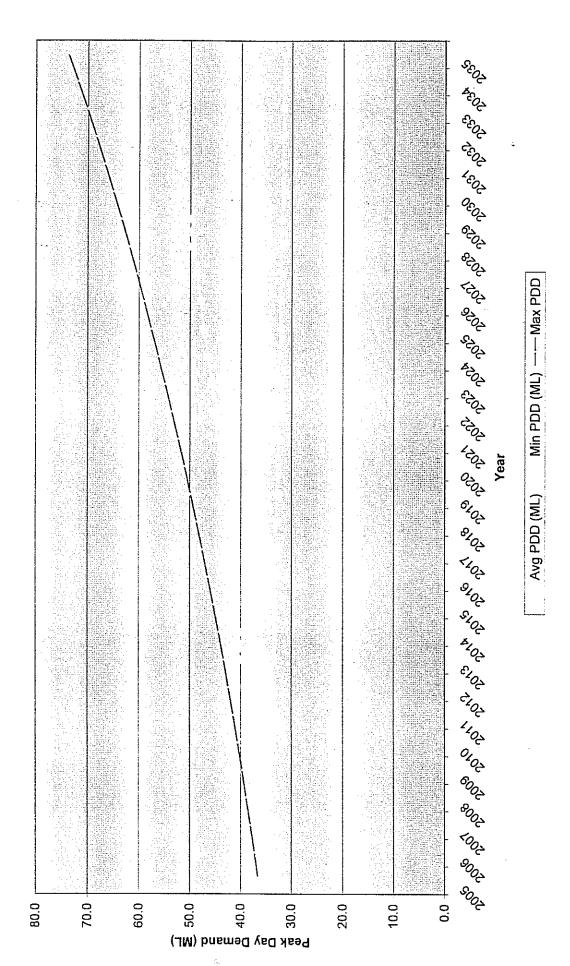


---- Avail. Allocation ---- Max Demand (95 %) ---- Min Demand (95 %) -+-Average Demand (GL)

AQWEST - BUNBURY WATER BOARD Total Services and Demand (kL) Table - period 1974/1975 to 2003/2004

|                            |                      |    |          |         | Demand/ |         |          |          |          |
|----------------------------|----------------------|----|----------|---------|---------|---------|----------|----------|----------|
|                            |                      |    | Total    | Demand  | Service | Growth  | Peak Day | Avg Day  |          |
| Year No New Services       |                      |    | Services | (KL)    | (kl)    | Sevices | Demand   | Demand   | PDD/ADD  |
| 1974/75 219                | 219                  |    | 6285     |         |         |         |          |          |          |
| 1975/76 335                | 335                  |    | 6620     |         |         | 5.33%   |          |          |          |
| 1976/77 226                | 226                  |    | 6846     |         |         | 3.41%   |          |          |          |
| 1977/78 199                | 199                  |    | 7045     | 6559549 | 931     | 2.91%   |          |          |          |
| 1978/79 223                | 223                  |    | 7268     | 6528859 | 868     | 3.17%   | 2.5      |          |          |
| 1979/80 228                | 228                  |    | 7496     | 5402187 | 721     | 3.14%   |          |          |          |
| 1980/81 369                | 369                  |    | 7865     | 6452111 | 820     | 4.92%   |          |          |          |
| 1981/82 219                | 219                  |    | 8084     | 6259236 | 774     | 2.78%   |          |          |          |
| 1982/83 182                | 182                  |    | 8266     | 6618981 | 801     | 2.25%   |          |          |          |
| 1983/84 259                | 259                  |    | 8525     | 6981214 | 819     | 3.13%   |          |          |          |
| 984/85 277                 | 277                  |    | 8802     | 6919235 | 786     | 3.25%   |          |          |          |
| 1985/86 217                | 217                  |    | 9019     | 6324555 | 701     | 2.47%   |          |          |          |
| 1986/87 137                | 137                  |    | 9156     | 6448025 | 704     | 1.52%   |          |          |          |
| 1987/88 183                | . 183                |    | 9339     | 5495870 | 588     | 2.00%   | ·        |          |          |
| 1988/89 284                | 284                  |    | 9623     | 6644139 | 069     | 3.04%   |          |          |          |
| 1989/90 249                | 249                  |    | 9872     | 5856504 | 593     | 2.59%   |          |          |          |
| 1990/91 384                | 384                  |    | 10256    | 6517255 | 635     | 3.89%   |          |          |          |
| 1991/92 235                | 235                  |    | 10491    | 5928870 | 565     | 2.29%   |          |          |          |
| 1992/93 275                | 275                  |    | 10766    | 6142456 | 571     | 2.62%   |          |          |          |
| 1993/94 371                | 37.1                 |    | 11137    | 6122312 | 550     | 3.45%   |          |          |          |
| 1994/95 189                | 189                  |    | 11326    | 6947610 | 613     | 1.70%   |          |          |          |
| 995/96 216                 | 216                  |    | 11542    | 6066883 | 526     | 1.91%   |          |          |          |
| 996/97 273                 | 273                  |    | 11815    | 6071013 | 514     | 2.37%   |          |          |          |
| 1997/98 273                | 273                  |    | 12088    | 6733705 | 227     | 2.31%   | 35824    | 18448.51 | 1.941837 |
| 1998/99 406                | 406                  |    | 12494    | 6606032 | 529     | 3.36%   | 33265    | 18098.72 | 1.837976 |
| 1999/00 370                | 370                  |    | 12864    | 6892804 | 536     | 2.96%   | 34277    | 18884.39 | 1.815097 |
| 2000/01 277                | 277                  |    | 13141    | 7318762 | 557     | 2.15%   | 32200    | 20051.4  | 1.605873 |
| 2001/02 165                | 165                  |    | 13306    | 6482580 | 487     | 1.26%   | 29271    | 17760.49 | 1.648096 |
| 2002/03 222                | 222                  |    | 13528    | 6407652 | 474     | 1.67%   | 35049    | 17555.21 | 1.996501 |
| 2003/04 291                | 291                  |    | 13819    | 6846789 | 495     | 2.15%   | 35731    | 18758.33 | 1.904807 |
| Average Growth in Services | Average Growth in Se | O) | rvices   |         | •       | 2.76%   |          |          | 1.821455 |
| Standard Deviation         | Standard Deviation   |    |          |         |         | 0.92%   |          |          |          |

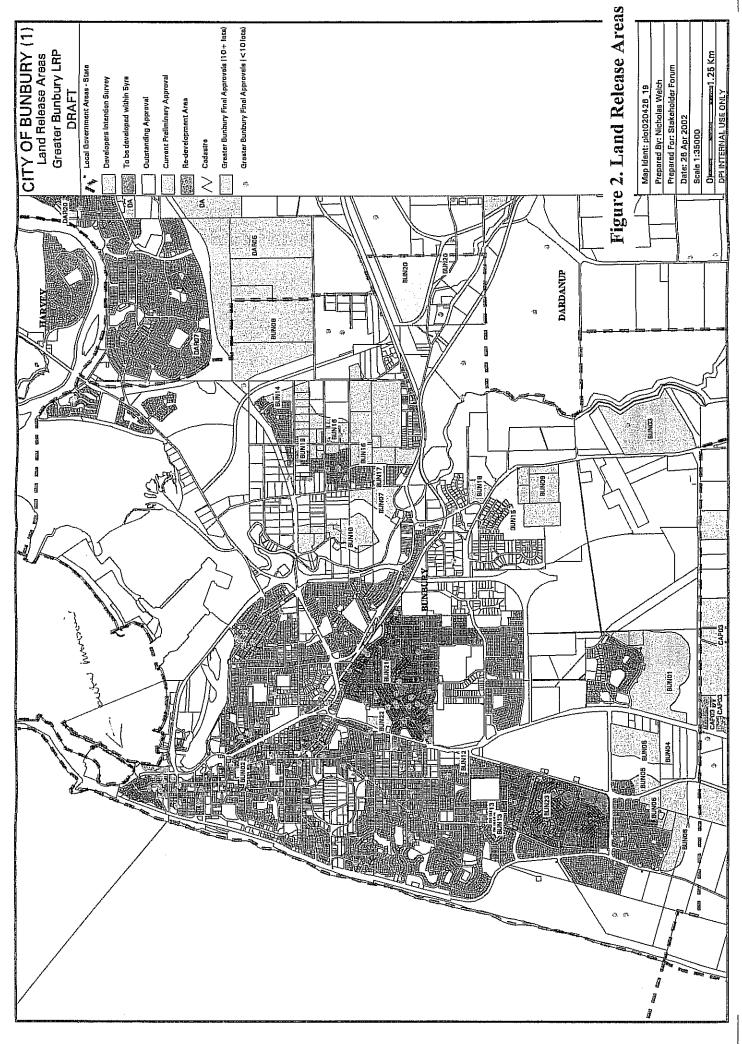
Peak Day Demand



#### AQWEST - BUNBURY WATER BOARD 5 YEAR FINANCE PLAN 2004/05 TO 2008/09

|       |  | 2003-2004<br>BUDGET | 2004-2005<br>PROJECTION | 2005-2006<br>PROJECTION | 2006-2007<br>PROJECTION | 2007-2008<br>PROJECTION                          | 2008-2009<br>PROJECTION                 |
|-------|--|---------------------|-------------------------|-------------------------|-------------------------|--|---|
| 000 F | APITAL EXPENDITURE URNITURE AND EQUIPMENT JETERING OF UNMETERED PROPERTIES/NON RESIDENTIAL METERING                    | 42,445<br>9,000     | 14,000<br>6,000         | 10,000<br>6,000         | 10,500<br>6,000         | 10,500   | 10,5<br>6,0                             |
| L     | LANT PURCHASES   | 214,000             | 144,000                 | 220,000                 | 144,000                 | 220,000  | 144,0                                   |
| 030 M | ETER REPLACEMENT   | 280,000             | 155,000                 | 90,000                  | 100,000                 | 110,000  | 110,0                                   |
| 060 E | DP EQUIPMENT   | 20,050<br>7,000     | 37,500<br>7,000         | 20,000<br>7,500         | 21,000<br>7,500         | 21,000<br>7,500                                  | 21,0<br>7,5                             |
|       | AINS EXTENSION   | 5,500               | 5,500                   | 5,800                   | 5,800                   | 5,800  | 5,0                                     |
| ·     | IAINS REPLACEMENT IAINS SUBDIVISION  | 50,000<br>150,000   | 80,000<br>150,000       | 80,000<br>155,000       | 90,000<br>155,000       | 120,000<br>155,000                               | 150,0<br>155,0                          |
| 437 U | PDATE NETWORK MODEL  | 20,000              | 80,000                  | 20,000                  | 20,000                  | 80,000   | 25,0                                    |
| N     | PGRADE - INCREASE PRODUCTION AT TECH SCHOOL CAPACITY TO 14<br>LUDAY  | 750,000             |                         |                         |                         |  | 1 1 1                                   |
| 7 E   | XTEND BOOSTER AREA - COLLEGE GROVE<br>NERGY MANAGEMENT   | 28,000<br>5,000     | 5,000                   | 5,000                   | 5,000                   | 5,000  | 5,0                                     |
| 449 N | INACCOUNTED FOR WATER - MAGFLOWS/CALIBRATION<br>IIGHT FLOW ANALYSIS.   | 30,000<br>30,000    | 55,000                  | 20,000                  | 25,000                  | 25,000   | 25,0                                    |
|       | LL SITES - INSTALL INTRUSION SECURITY SYSTEM ONSTRUCT ADWEST WATER SERVICES CENTRE                                     | 25,000<br>103,000   |                         |                         |                         |  |   |
| 7 R   | EPLACE BUSSELL BORE (INCLUDES CAPPING OF EXISTING BORE)  | 15,000<br>60,000    |                         |                         |                         |  |   |
|       | IANGLES RESERVOIR - REPLACE LINER - CONTINGENCY VSPECT AND REVIEW TECH 4 BORE PUMP WATER QUALITY                       | 20,000              |                         |                         |                         |  |   |
| 75    | NSTALL TORQUE ANCHOR TO TECH 4 BORE  | 15,000              |                         |                         |                         | i  |   |
| 5     | IOBERTSON WTP - REDRILL BORE AND REPLACE PUMPS AND IMTCHBOARDS   | 406,000             | 45.222                  |                         |                         | į  |   |
|       | NSTALL CHLORINE MONITORING DEVICES AT ALL RESERVOIRS OBERTS RESERVOIR - UPGRADE INLET PIPEWORK                         | 15,000<br>40,000    | 45,000                  | 30,000                  |                         |  |   |
| 92 1  | NSTALL 250MM LINK MAIN EAST BUNBURY TO VITTORIA HEIGHTS  | 347,000             |                         |                         |                         |  |   |
|       | ROUNDWATER ANALYSIS LL SITES - REPLACE AIR COMPRESSORS WITH STANDARD SYSTEM  | 14,000<br>27,500    | 14,000<br>56,000        | 14,000                  | 14,000                  | 14,000 .   | 14,0                                    |
|       | UN TO FAIL REPLACEMENT PROGRAM   | 30,000              | 30,000                  | 30,000                  | 30,000                  | 30,000   | 30,0                                    |
|       | LI SITES - LIGHTNING PROTECTION  | 60,000<br>10,000    | 120,000                 | 500,000                 | 500,000                 | 520,000  | 1,000.0                                 |
|       | VSTALL 500MM TRUNK MAIN FROM TECH WTP TO PARADE ROAD VSTALL 375 TRUNK MAIN FROM PARADE ROAD TO ROBERTS CRES.           | 10,000              | 120,000                 | 300,000                 | 300,000                 | 320,000  | 1,000,1                                 |
| 70 G  | CEN IRIS DISTRIBUTION UPGRADE 200MM MAIN - JUBILEE ROAD  | 5,000               | 50,000                  |                         |                         | :  |   |
|       | NSTALL 300 MM / 375 MM DIAMETER MAIN ALONG ORCHID DRIVE AND INCE<br>LOAD, GLEN IRIS                                    | 97,000              | 55,000                  |                         |                         |  |   |
|       | IPGRADE SERVICE - BUNBURY HEALTH CAMPUS  | 12,500              |                         |                         |                         |  |   |
|       | ASTIE BOOSTER - UPGRADE VSD<br>NSTALL CUL-DE-SAC TO IRWIN ST   | 30,000<br>15,400    |                         |                         |                         |  |   |
| 15 A  | ILL RESERVOIRS - VERMIN PROOF  | 10,000              |                         |                         |                         |  |   |
|       | IOBERTS RESERVOIR - UPGRADE FENCING IPGRADE ROBERTSON WTP  | 11,000<br>140,000   | 112,000                 |                         |                         |  | *************************************** |
|       | KEWES WTP - REPLACE FILTER SANDS   | 55,000              |                         |                         |                         |  |   |
|       | KEWES WTP - REDRILL NORTH BORE AND REPLACE ELECTRICS   | 10,000              | 300,000                 |                         |                         |  |   |
|       | KEWES WTP - REPAINT SEDIMENTATION TANK INTERNALS SPENCER WTP - REPLACE BORE HEADWORKS                                  | 24,000              |                         |                         |                         |  |   |
| 12 5  | PENCER WTP - REPLACE ELECTRICAL CUBICLE FOR BOTH BORES   | 20,000              | 50.000                  | 50,000                  | 55,000                  | 55,000   | 55,                                     |
|       | IRE SERVICE CONTROL SYSTEM HYDRAULICS / WATER QUALITY MODELLING  | 50,000<br>19,000    | 50,000                  | 30,000                  | 23,000                  | 33,000   | 33,                                     |
| 15    | NVESTIGATE AND TRIAL WATER QUALITY LOGGERS   | 10,000              |                         |                         |                         |  |   |
|       | DECOMMISSION TECH 2 BORE AND ESTABLISH AS MONITORING BORE REPLACE ELECTRICAL POWER POLES AT BOTH TECH 1 & 2 BORE SITES | 9,000<br>7,000      |                         |                         |                         |  |   |
| 10 17 | ECH WTP - UPGRADE NO 1 BORE CUBICLE  | 13,000              |                         |                         |                         | -  |   |
|       | CONSTRUCT JARRAH BENCHIRAMP IN STORES  | 15,000              |                         |                         |                         |  |   |
|       | ALL PLANTS - AUTOMATION R&D<br>ALL PLANTS - COMPLETE ELECTRICAL PICKUP - BOOSTERS AND                                  |                     | 25,000<br>25,000        |                         |                         |  |   |
|       | RESERVOIRS   |                     | ì                       | i<br>i                  |                         |  |   |
|       | ALL PLANTS - RESERVE MANAGEMENT PLAN<br>ALL RESERVOIRS - LEAK JOINT SEALING  |                     | 20,000<br>25,000        |                         | ·<br>·                  | <u> </u>   |   |
|       | ALL SITES - COMPILE OPERATIONS / ASSET MANAGEMENT PLANS FOR  |                     | 40,000                  |                         | -                       |  |   |
|       | NOIVIDUAL TREATMENT PLANTS   |                     | 64,000                  | i<br>I                  |                         |  |   |
|       | ALL SITES - COMPLETE BORE CAPPING / MONITORING PROGRAM<br>ALL SITES - INSTALL CHLORINE CONTAINMENT BUNDS               |                     | 50,000                  |                         |                         |  |   |
| 1     | ALL SITES - INSTALL DYNASAND FILTER SAFETY PLATFORMS   |                     | 50,000<br>60,000        |                         |                         |  |   |
| 1     | ALL SITES - TO INSTALL CABLE CORE MARKING FOR ELECTRICAL WIRING AT<br>FREATMENT PLANTS / BOOSTER STATIONS              |                     |                         |                         |                         |  |   |
|       | HASTIE WTP - LEAK REPAIR TO WASHWATER RECOVERY TANK  JPGRADE HASTIE WATER TREATMENT PLANT                              |                     | 20,000<br>450,000       |                         |                         |  |   |
|       | JPGRADE HASTIE WATER TREATMENT PLANT<br>JPGRADE IRWIN WTP  |                     | 320,000                 | !                       |                         |  | :                                       |
| F     | TOBERTS RESERVOIR - REPLACE ROOF VENTS   |                     | 12,000                  |                         |                         |  |   |
|       | EKEWES WTP - INSTALL VAPOUR PROOF WALL  SYSTEM - DEVELOP GIS PROTOTYPE   | <u> </u>            | 25,000                  | ·                       | •                       |  |   |
| į     | JPGRADE TECH RESERVOIR   |                     | 25,000                  |                         |                         | <u> </u>   |   |
|       | FECH WTP - CHLORINE SYSTEM ADDITIONS (IF REQUIRED) FECH WTP - INSTALL CLARIFIER  |                     | 30,000<br>50,000        |                         |                         | <b>\$</b>  |   |
| 7     | TECH WTP - RELOCATE NO 4 AND NO 5 BORE PUMPS AND COLUMNS   |                     | 55,000                  |                         |                         |  |   |
| 1     | WATER SERVICES CENTRE - INSTALL FIRE DETECTION / ALARM SYSTEM  |                     | 25,000                  |                         |                         |  |   |
|       | RESERVOIRS - STRUCTURAL INTEGRITY ANALYSIS   |                     | 50,000                  |                         |                         |  | :                                       |
| 1     | WATER SERVICES CENTRE - ROLLER DOORS ELECTRIC MOTORS STORE   |                     | 7,500                   |                         |                         |  |   |
|       | WATER SERVICES CENTRE - AUTOMATIC DOORS FOR RECEPTION<br>ENTRANCE  |                     | 7,500                   |                         |                         |  | :                                       |
| i     | HASTIE RESERVOIR - LEAK REPAIRS<br>CARRY OUT INVESTIGATIONS FOR SUITABLE GROUNDWATER SUPPLIES                          |                     |                         | 15,000<br>5,000         | 250,000                 | 250,000  |   |
| - !   | PRESTON AREA   | <u> </u>            | 45.475                  |                         |                         | <u> </u>   | !                                       |
|       | UPGRADE ROBERTS RESERVOIR<br>UPGRADE SKEWES WTP  |                     | 30,000                  | 230,000                 |                         |  | į                                       |
|       | SPENCER WTP - DELIVERY PUMP UPGRADE  |                     |                         | 20,000                  |                         |  |   |
|       | REPLACE TECH 1 BORE UPGRADE MANGLES RESERVOIR  | [                   |                         | 15,000                  | 440,000<br>50,000       |  | ;                                       |
|       | UPGRADE SPENCER WTP  |                     |                         |                         | 340,000                 |  |   |
|       | UPGRADE HASTIE RESERVOIR   |                     | ļ                       |                         |                         | 15,000<br>200,000                                |   |
|       | UPGRADE COMPUTER SYSTEM  KEN CANTWELL WTP - DESIGN AND CONSTRUCTION  | 1                   | <u> </u>                |                         |                         | 300,000  |   |
|       | KEN CANTWELL WTP - DESIGN AND CONSTRUCTION<br>TOTAL CAPITAL EXPENDITURE  | 3,438,395           | 3,037,000               | 1,848,300               | 2,268,800               | <del>                                     </del> |   |

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## AQWEST – BUNBURY WATER BOARD

#### UNACCOUNTED FOR WATER / NIGHT FLOW ANALYSIS REPORT

**NOVEMBER 2002** 

#### By Heath Bennett

Aqwest Technical Officer (1994 - 2002)
Technical Assistant - Bristol Water Leakage Services Dept, U.K (1992 - 1994)
Member of the U.K Water Industry National Leakage Initiative (1992 - 1994)
Chairman - WSA U.K, Leakage Metering Group (1994)

#### AQWEST – BUNBURY WATER BOARD

#### UNACCOUNTED FOR WATER PROJECT

#### 1. INTRODUCTION

The ongoing review of levels of unaccounted for water (UFW) was triggered by a review of the key performance indicators in the 1999/2000 Annual Report which highlighted a UFW figure of 19.6%.

Water industry data for distribution system losses indicates levels of loss of between 5% and 25% (Source: UK Environmental Agency). The lowest figure reported is that of Singapore which employs pro active leakage detection and pressure reduction programs, and reports a UFW figure of 4.9% (1999).

Suggestions for the Aqwest figure of 19.6% were as follows:

- 1) Inaccurate data (delivery vs consumption) due to inaccurate meters.
- 2) Unrecorded consumption eg fire brigade use, hydrant standpipe use, theft of water.
- 3) System losses leaks from trunk and distribution mains, and water services; water used for system maintenance (eg flushing, scouring, link in's).

It was expected that all three factors were contributing to Aqwest's UFW figure.

In March 2001, a report was completed to determine the cost of the 19.6% UFW figure, and to determine methods of reducing the figure.

The report determined that the 19.6% figure was derived as follows:

Total metered consumption (from Authority system) = 5,540,615 kilolitres

Total metered delivery (from WTP and reservoir meters) = 6,892,804 kilolitres

Variance = 6.892,804 - 5,540,615 = 1,352,189 kilolitres = 19.6%

It was also determined that this was the equivalent of the average domestic consumption of 4,265 residential properties, and based on a unit cost of 34c / kilolitre, equates to a value of S459,744, enough to justify research into the cause of the loss.

The report recommended the following actions be undertaken to establish the accuracy of the UFW data, and to reduce the figure if it were found to be accurate:

- 1) Review consumption metering
- Are all properties metered?
- Is all consumption recorded?
- Effect of out of commission meters?
- How accurate are consumption meters?
- 2) Review delivery metering
- Review accuracy of WTP and reservoir meters
- Review calibration procedures for delivery meters
- 3) Review other sources of Unaccounted for Water
- Fire brigade / fire service use
- Hydrant standpipe use
- Theft of water
- 4) Review system losses
- · Review mains leakage
- Review reservoir leakage
- Review service leakage
- Review burst mains and services
- Review system maintenance use eg flushing
- 5) Conduct system audit (water balance)

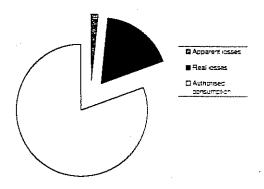
It was determined that the key performance indicator for UFW should be determined by conducting a system audit, an example of which is shown on Page 3. An important aspect of conducting the audit is to improve the quality of information used in the audit by ensuring that as much data is proven (eg metered), so that accurate UFW data is obtained.

#### BENCHMARKING OF WATER LOSSES IN AUSTRALIA: CALCULATED WATER BALANCE COMPONENTS

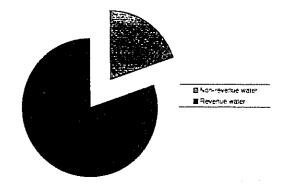
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|                   | Aqwest                | - Bunbur                        | y Water Boa                                | ırd                                 | 1-Jal-99 | to                          | 30-Jen-00                         | WSAA - 1a 0026  | 3                    |
|-------------------|-----------------------|---------------------------------|--|-------------------------------------|----------|-----------------------------|-----------------------------------|---|----------------------|
| N1. ANI           | NUAL W                | ATER BA                         | ANCE DATA                                  | A                                   | •        |                             |                                   | Ail system  |                      |
| Own<br>Sources    |                       | Water<br>Exported<br>0.0<br>Mil |  |                                     |          |                             |                                   | Elifed Water Exported   | O.O MI               |
| 6892.0<br>MI      | System                |                                 | Authorised<br>Consumption<br>5552.B<br>Mil | Billed<br>Authorised<br>Consumption | 5540.0   | Mi                          | Revanue<br>Water<br>5540.0<br>Mil | Billed Malared Consumption  | 5540.0 MI            |
|                   | Input<br>6892.0<br>Mi | Supplied<br>Water               |  |                                     |          |                             |                                   | Billed Uncetared Consumption  | 0.6 MI               |
| Water<br>Imported |                       | 6892.0<br>MI                    |  |                                     |          | Unbified Beared Community ( |                                   |   |                      |
| O.O.              |                       | ·                               |  |                                     |          |                             |                                   |   | (72.0 M)<br>(42.0 M) |
|                   |                       |                                 |  |                                     | 0-7/200  | 擧                           |                                   | THE VICTOR OF THE PARTY OF THE |                      |

# Basic Components of System Input in MI/year



#### Revenue Water and Non-Revenue Water in Mi/year



The report was reviewed by staff, and the following recommendations were determined for action:

- 1. Confirm accuracy of delivery meters
- 2. Replace inaccurate delivery meters
- 3. Confirm that all properties are metered
- 4. Confirm accuracy of consumption meters
- 5. Focus on identification and replacement of out of commission consumption meters
- 6. Obtain and regularly analyse night flow data for supply system (night flow analysis / leakage metering)
- 7. Record system maintenance use where possible.
- 8. Rectify leakage at reservoirs
- 9. Calculate future UFW data using system audit (water balance) information

In summary the report highlighted that the following matters must be considered with regard to Unaccounted for Water:

- Unaccounted for water causes significant loss of revenue
- Economic savings from reduction in lost water eg treatment and distribution costs
- There will always be a certain volume of water that cannot be accounted for
- Long term deferment of capital expenditure due to reduction in UFW
- Improvements to customer services due to less interruptions to supply from burst mains / poor pressure / dirty water
- Effects of maintenance programs (short term increase in works, but should reduce in the long term as leaks are located and repaired)

#### 2. ACTIONS TO DATE

Since the initial report was published, the following actions have been completed:

#### a) Confirm delivery meter accuracy

In September 2001, following a review of WTP / reservoir delivery meters, it was determined that the following meters were inaccurate and would require replacement:

- Tech Reservoir Underwood Avenue (600mm)
- Tech Reservoir Washington Ave (450mm)
- Hastie Reservoir (450mm)
- Mangles Reservoir (300mm)
- Roberts Reservoir (300mm)
- Skewes WTP (250mm)

#### b) Replace inaccurate delivery meters

In January 2002, reservoir delivery meters identified as being inaccurate were replaced with Danfoss magflow meters in a Capital Works plan funded program. The Skewes WTP delivery meter was replaced in October 2002, again utilising Capital Works Plan funds.

#### c) Confirm that all properties are metered

A review of the Authority database and discussion with Finance and Rates staff determined that all known services were metered (all unmetered services were corrected during the 1999 Metering of Non Residential services program).

#### d) Confirm accuracy of consumption meters

All water meters are subject to wear, and with this a decrease in accuracy will occur due to wear in the metering chamber. As a result, meters will under record, small flows may not register, and high flows could result in meter slippage.

A review and bench test of meter accuracy carried out in September 2001 provided the following data:

| Reading range | No of meters | Average error at | Average error   | Average error   |
|---------------|--------------|------------------|-----------------|-----------------|
| (kl)          | tested       | 1.6 l/min (%)    | at 10 1/min (%) | at 25 1/min (%) |
| 3001 – 4000   | 5            | -57.4            | -7.3            | -4.8            |
| 4001 - 5000   | 6            | -58.7            | -3.5            | -4.1            |
| 5001 - 6000   | 3            | -69.95           | -7.8            | -3.2            |
| 6001 – 7000   | 7            | -73.6            | -13.6           | -11.7           |
| 7001 – 8000   | 2            | -47.8            | -9.8            | -11.1           |
| 8001 – 9000   | 1            | -33.1            | -1.5            | -3.1            |
| 9001 - 10000  | 6            | -81.1            | -38.3           | -6.5            |

It can therefore be seen that meter accuracy at normal operating flows is between 1.5 and 38% (under recording). While this may indicate that the unaccounted for water is not as high at it seems, it is difficult to adjust the total metered consumption by an accurate figure to counter for this meter inaccuracy.

If a figure of 5% was chosen, then a revised UFW figure would be as follows:

Delivery = 6,892,804 kl Consumption = 5,835,000 kl

Variance (UFW) = 15.4 %

However, this overlooks the fact that if the delivery meters are under recording, then the UFW figure could be higher.

#### e) Obtain night flow data for supply system (leakage metering)

Night flow analysis is used as a means of quantifying leakage levels in water mains networks.

Since 1986, no dedicated leak detection work has been carried out since a leak noise survey was carried out in small, selected areas of the mains network.

The assessment of leakage can assist in a number of important areas:

- Assists in planning leakage monitoring, control and repair programs
- Management of system operating pressures at optimum levels
- Allows the completion of water audits and assessment of economic levels of unaccounted for water
- Assists in the planning and development of mains rehabilitation and replacement programs, and planning for future headworks

The assessment of leakage can be undertaken in the following system areas:

- Reservoirs (drop tests and reservoir inspections)
- ♦ Trunk mains
- Distribution / reticulation mains
- Aqwest's services (main to meter)
- ◆ Customers services (meter to internal) customers responsibility, although leakage assessment may identify leaks which could lead to a reduction in the number / size of ex gratia claims.

The majority of programs used to assess leakage in mains systems catagorise losses as follows:

- ◆ Bursts- reported and unreported individual events with a rate of losses greater than 0.5m³/hr at 50m pressure.
- ◆ Background leaks individual events with a rate of losses less than 0.5m³/hr at 50m pressure.

Commercial software such as BABE (Bursts And Background Estimates) – Water Research Council, UK, and SANFLOW (South African Night Flow Analysis) also assess bursts as follows:

- Reported bursts are those which are identified by the public or by operational staff, usually as a result of water rising to the surface.
- Unreported bursts are those which are located by active leakage detection methods, and which would normally go undetected with passive leakage control.
- ♦ Hidden losses are those small bursts and leaks that remain undetected for extended periods of time, even with some forms of active leakage control.

It should be noted that passive leakage control consists of responding to leaks and bursts as they arise by notification of bursts by the public or staff as water is visible at the surface. Active leakage control is the process of using leak detection techniques such as night flow analysis, leak noise correlation, step testing, sounding etc, to proactively identify leaks.

With reported bursts (and accidental damage eg contractors damaging main) the effect on unaccounted for water data is usually established by determining the time taken to repair the burst after notification.

With unreported bursts, the effects are usually greater, as the following has to be established:

- ◆ Awareness time taken from leak first occurring until the time that Aqwest becomes aware that the leak exists.
- Location time taken from awareness to the time taken to physically locate the leak
- Repair time from location to repair of the leak

From the above it is easy to see that usually, reported bursts have shorter combined awareness, location and repair times, and thus water loss may be lower, while unreported bursts can run for much longer periods of time, and thus water losses may be extremely high. For example if sounding were employed as the only method of leak location, and this is carried out once a year, then the average duration that an unreported burst will run for is approx 6 months. If no active leak detection is carried out, leaks and bursts may run for years without any indication at the surface.

Thus the identification of unreported bursts can have a great effect on levels of unaccounted for water.

An important consideration when considering the effort expended to identify these leaks is economic ie what will it cost to monitor / locate the leak verses what will be saved (both directly and indirectly). The point is made so that economically justifiable decisions can be made in this area, in line with Aqwest's Asset Management principles.

A number of methods can be employed to identify unreported bursts, as follows:

- ♦ Night flow analysis
- Sounding
- ♦ Step testing
- Leak noise correlation
- Leak noise loggers

Sounding is a popular technique using simple and inexpensive equipment, but is wholly dependant on operator skill, and can be time consuming. Even with small supply systems or zones, the cost of sounding the entire system may not be justified in terms of overall savings from identified leaks. Large areas may have no leaks occurring, or leak noise levels may be low due to ground conditions, mains materials, surrounding noise etc. Sounding also has the disadvantages that it is sometimes difficult to determine the precise position of the loudest sound, and the position of the highest sound intensity does not always coincide with the position of the leak.

Step testing methodology is described in Appendix 1.

Leak noise correlation has been employed by Aqwest in 1986, and while it is an accurate method of determining leaks, it can suffer from the same disadvantage as steptesting in that large areas may have no leaks occurring at all, and thus time spent in these areas is unproductive (although confirmation that no leaks are occurring is also a positive). Details are included in Appendix 3.

Leak noise loggers are a recently introduced device which are placed at strategic locations in the mains system and are used to identify the characteristic noise of leakage.

The most economic method of leakage management is to identify areas which show the potential for leaks to be occurring, and then check those areas with more detailed leak detection techniques (refer to Appendix 4 for an industry example).

This can be established by the analysis of night flow data which can be gathered by dividing the supply system into individual temporary or permanent zones, with a flow meter installed at the inlet to each zone (a system known as leakage metering). Once each zone is isolated by closing zone valves, minimum flows are recorded (ie at night). Any zones where night flows indicate leakage, can be further examined by step testing (closing of branches of the zone back towards the meter) or leak noise correlation.

The recommendation from the leakage report carried out in 1986 was that no further leakage work be carried out until minimum flows (night flows) are recorded in each area. As stated in the report (and as supported by industry sources), the minimum night flow in a system with no leaks should be zero, but is generally acceptable up to 4 litres / hour /service (this can account for significant volume over time). The establishment of night flows is important as a first step in determining if leakage is a) occurring in other parts of the system and b) if leakage levels have risen since the 1986 review. As stated in the review, the analysis of night flow data can highlight the general deterioration of the mains system, and leak detection surveys can be used to pinpoint leaks in areas that show evidence of deterioration. The first step in analysing night flows is the establishment of a leakage metering system.

In August 2002, valving operations were completed to allow isolation of the system into two zones based on a Tech Reservoir zone, and the remainder of the system (refer Figure 1).

Based on leakage industry standards, it was determined that the following acceptable background leakage level would be determined:

Acceptable leakage level = 4 litres / property / hour

- Tech zone approx 5,500 properties x 4  $l/p/h = 22,000 l/p/h = 22 m^3/h$
- Remainder of system approx 7,500 properties x  $4 \frac{1}{p/h} = 30,000 \frac{1}{p/h} = 30 \text{ m}^3/h$

During the isolation period, the SCADA system was used to accurately monitor nightflow data from the two zones. Minimum night flows in the zones were recorded as follows:

- Tech =  $87m^3/h$
- Remainder =  $106m^3/h$
- Total system =  $193 \text{ m}^3/\text{h}$

It had been noted even prior to the test, that total system nightflows were in the region of  $200\text{m}^3/\text{h}$ . Based on the number of properties served (13,042), an acceptable background level would be  $52\text{m}^3/\text{h}$ . It would seem from this data alone, that further investigation is warranted.

#### f) Record system maintenance use

Since 2001, all water used for flushing and scouring has been recorded through metered standpipes.

#### g) Rectify reservoir leakage

In 2002, repairs were made to the leaking liners at Tech and Roberts Reservoirs.



#### 3. FUTURE ACTIONS

The proposed future actions for UFW are as follows:

#### 1) On going night flow analysis (leakage metering system)

Design works to establish a leakage metering system is currently in progress, with assistance being provided by Gugich and Associates. It is proposed to set up approximately 10 - 12 metering zones of 1000 to 1500 properties each, as well as using the existing high level (booster) areas as metering zones (these zones are particularly attractive, as isolation valves are already in place and should be well maintained, and the savings associated with any identified leaks are greater as water supplied in a booster zone has a greater production cost than in non boosted areas due to the additional costs associated with the booster pumps ie electricity, pump maintenance etc). It is also proposed to conduct leakage tests on trunk mains by isolating all branches and recording the flow into the trunk mains (flow should be nil with no leakage present).

Night flow analysis could be carried out in these zones using one portable magflow meter installed in spool pieces cut into existing mains at predetermined locations. Another alternative is to use existing reservoir outlet magflow meters and zone off smaller areas using a combination of valving and back feeding.

The advantage of the first alternative is that the magflow meter could be used as a step test device for the location of leaks in zones identified as having high nightflows.

It is expected that the zone design work will help to ascertain which option is more suitable and most cost effective.

The factor which must be considered with setting up the zones is the requirement to check and test valves for tightness. This is essential for night flow testing, but is surely a requirement for daily operations anyway (a valve that does not shut off is no use when repairing a burst main!). Thus it must be made clear that valve maintenance is a key component of the program, and will be one of the major costs of night flow analysis. However the benefit of this is that these valves will be inspected regularly to ensure that they are in good operational order.

The zones are being designed on the assumption that night flow analysis will be an ongoing exercise, completed annually. Even if no leaks are found now (unlikely), it is obvious that leakage levels will increase in the future if no active leakage detection program takes place. Passive leakage control (ie waiting for leaks to occur and then fixing them) will eventually lead to an increase in the number of leaks and bursts as reported to the Office of Water Regulation, increases the inconvenience to customers when a leak or burst occurs, and increases overall operational costs, as well as the obvious problem, that of the loss of water.

If the current figures are correct, annual losses of approx \$450,000 of production water revenue (\$205,000 production costs) justifies an ongoing investment in active leakage / unaccounted for water control measures.

It should also be noted that in other countries, the ongoing issue of abstraction and operating licences is conditional on water service providers demonstrating efficient management of leakage and unaccounted for water. In light of the present situation regarding water resources in Western Australia it is important for utilities like AQWEST to demonstrate a proactive approach to UFW.

It is estimated that if the Board wishes to commit to ongoing leakage management, then a full leakage metering system could be set up within 1-4 years, as follows:

- Confirm zone designs
- □ Check / test valves
- ☐ Install portable meter spool pieces
- □ Test zones annually for 1-2 nights per year
- Review zonal nightlines and report
- □ Steptest zones with high nightlines using portable meter.
- Locate leaks and repair as required

The following are estimates of costs to setup a complete leakage metering program:

- □ Check and test valves (est 200) \$ 75,000 (based on cost of \$15,000 to check 41 valves for August 2002 test)
- ☐ Install spool pieces / test sites \$10,000

#### Total set up costs = \$85.000

- ☐ Annual testing costs valving off zones / monitoring \$7,000 (assumes 2 staff x 6 hours (night valving) x 10 days 1 day / zone)
- □ Analysis by staff location planning (eg potential step test / leak location sites) \$3,000 (1 week x 2 supervisory / technical staff)

#### Annual night flow analysis = \$10,000

□ Conduct a step test on 1000 -1500 properties = \$3,800 (includes valve checks @ \$300. valve)

#### Step test leak location costs = \$38,000 (10 zones / annum)

□ Locate leaks using leak noise correlator or alternative = quotation required

# <u>Leak location costs</u> = to be determined (dependant on the number of leaks identified

These figures will be confirmed once zone design is complete and accurate valve numbers are known.

#### 2) Night flow testing June 2003

It is proposed to complete analysis of trunk main leakage in April / May 2003, dependant on system operation, and to conduct night flow analysis of booster zones (x 7) in May / June 2003.

It is then proposed to test the Roberts, Mangles and Hastie Reservoir zones in isolation in June 2003. This will require the checking of approximately 9 valves in April / May 2003 (to be funded from existing project funds GL 3449).

In early July 2003, the Unaccounted for Water calculation can be completed for 2002/03, with the confidence that both production and consumption data is accurate (ie the first full year since the reservoir magflow meters were replaced). A water balance should also be underaken to incorporate other UFW factors and this incorporated in the UFW calculation.

This data, combined with the night flow analysis undertaken in June, should provide the necessary guidance on what level of unaccounted for water program is required for the next twelve months (ie if the UFW calculation is 4 - 8% then it may be uneconomical to undertake analysis of the smaller zones, and it may be more appropriate to just test the three reservoir zones).

#### 3) Ongoing analysis

As stated earlier, the economic level of leakage must be determined in order to estimate what UFW measures should be undertaken. As a minimum though, the three existing reservoir zones (Tech, Mangles and Roberts Reservoirs) should be tested annually, with analysis of smaller zones / step testing incorporated as required (ie where high night flows are recorded).

Once the leakage metering zones have been designed, there is no additional cost associated with them, save for regular checking of valves.

#### 4) Other Unaccounted for Water Initiatives

In order to achieve more accurate unaccounted for water data, the following matters may be addressed:

- ☐ Metering of fire services report in progress
- Recording of other system maintenance use

#### 5) Reservoir Leakage Tests

Drop tests should be conducted annually at all reservoir to monitor leakage.

#### 4. RECOMMENDATIONS

If further night flow analysis / UFW calculations confirm the suspected high UFW levels it may be appropriate to setup a full system commencing with zones showing high nightlines (from night flow analysis completed upto June 2003) first, and moving to all zones by 2004 - 2006.

A guide program is as follows:

- Conduct trunk main analysis April / May 2003
- □ Conduct high level zone night flow analysis May / June 2003
- □ Conduct Roberts / Hastie night flow analysis June 2003 (check valves in May 2003)
- □ Confirm UFW calculation July 2003
- □ Conduct system audit (water balance)

If UFW calculation confirms suspected UFW levels:

- □ Check and test reduced size zone valves (identified / historic leakage zones) July 2003
- □ Install flow meter spool pieces / test sites (identified / historic leakage zones) July 2003
- □ Conduct night flow analysis (identified / historic leakage zones) and step tests / leakage detection as required August 2003
- □ Conduct night flow analysis Tech / Hastie / Roberts zones annually commencing July 2004
- □ Check and test reduced size zone valves (remainder of zones) July 2004 onwards
- ☐ Install flow meter spool pieces / test sites (remainder of zones) July 2004
- □ Conduct night flow analysis (identified / historic leakage zones) and step tests / leakage detection as required August 2004 ongoing

#### 5. AREAS FOR LONG TERM CONSIDERATION

The following longer term ideas should also be considered:

- Review of consumer leaks a proactive approach to assisting customers to reduce leakage in their plumbing systems (eg leak repair notices, incentives to repair leaks) - these are broad, industry based ideas, and link to Water Conservation ideals.
- Review of production vs delivery (ie WTP losses).

#### Proposed funding for leakage metering program

| Item  | 2002/03  | 2003/04     | 2004/05     | 2005/06     |
|---|----------|-------------|-------------|-------------|
| 5 year plan funds   | \$60,000 | \$20,000    | \$20,000    | \$20,000    |
|   |          |             |             |             |
| Conduct initial night flow tests (complete)                 | \$17,000 |             |             |             |
| Design night flow zones                                     | \$6,000  |             |             |             |
| Check and confirm<br>trunk main / high level<br>zone valves | \$28,000 |             |             |             |
| Conduct trunk main flow tests                               | \$2,000  |             |             |             |
| Conduct high level zone night flow tests                    | \$0      | \$500       | \$500       | \$500       |
| Conduct reservoir zone night flow tests                     | \$1,000  |             | -           |             |
| Check and confirm reduced size zone valves                  |          | \$10,000    | \$10,000    | \$10,000    |
| Install flow meter test sites                               | \$6,000  | \$5,000     | \$5,000     |             |
| Conduct reduced size zone night flow tests                  |          | \$4,500     | \$4,500     | \$9,500     |
| Step testing (if / as required) *                           |          | \$38,000    | \$38,000    | \$38,000    |
| Leakage location *  | <u>.</u> | As required | As required | As required |

<sup>\*</sup> Subject to confirmation of the UFW figure and the detection of high night flow, 5 Year Plan funds from 2003/2004 onwards may need to be increased to cover step testing and leak location activities.

#### 6. SUMMARY

- Strenuous efforts need to be made to confirm / reduce the unaccounted for water figure.
- ☐ The replacement of delivery meters project that was completed in 2002 will enable an accurate UFW figure to be determined on 1/7/2003.
- It is apparent from initial night flow data, and current system maintenance data that leaks are occurring in the mains system.
- Searching for leaks in a mains system is akin to looking for a needle in a haystack!
- The most efficient and effective method of leak detection is to measure system flow at night in small isolated zones.
- □ Zones identified as exhibiting higher than expected night flows can then be checked using conventional leak location methods.

# APPENDIX 1

#### ESTABLISHMENT OF A LEAKAGE METERING SYSTEM

Leakage metering involves the zoning of a supply system into small areas ie typically between 500 and 3000 properties, by closing appropriate isolation valves and feeding each zone by a single metered main. Data loggers are attached to each meter to record flow into the zone for analysis.

Zones can be set up to be permanent isolated zones, or temporary, where the zone is isolated only for the purposes of leak detection. Flow meters can be left in the feed mains permanently, or temporary metering positions can be established where the flow meter is replaced by a spool piece after each waste metering test has been completed. In this way, only a small number of meters (or even one) need to be purchased to conduct waste metering.

An extension of leakage metering involving a permanently isolated system is known as 'continual night flow monitoring' where permanently stationed loggers linked by PSTN or a telemetry system is used to analyse data from zone flow meters continuously. A typical zone is then divided into a number of waste meter zones for more isolated testing. A typical continual monitoring zone may contain from 1000 – 5000 properties.

Once leakage meter zones have been established, they can be tested to verify if flow rates are greater than prescribed limits. If the minimum flow at night, when water usage is usually at its lowest (eg 11.00pm – 4.00am) is greater than the limits, then this is an indication that leakage may be occurring in the zone, and thus further leak detection work can be carried out eg step testing, sounding, leak noise correlation etc.

The advantage of leakage metering is that all sizes of leaks from small to large can be identified in a specific area, and thus the further detection work can be narrowed down to a small area of the mains system. The disadvantage is that work completed in areas where there are no leaks is unproductive if carried out too frequently. However this must be analysed in comparison to the cost of water saved overall.

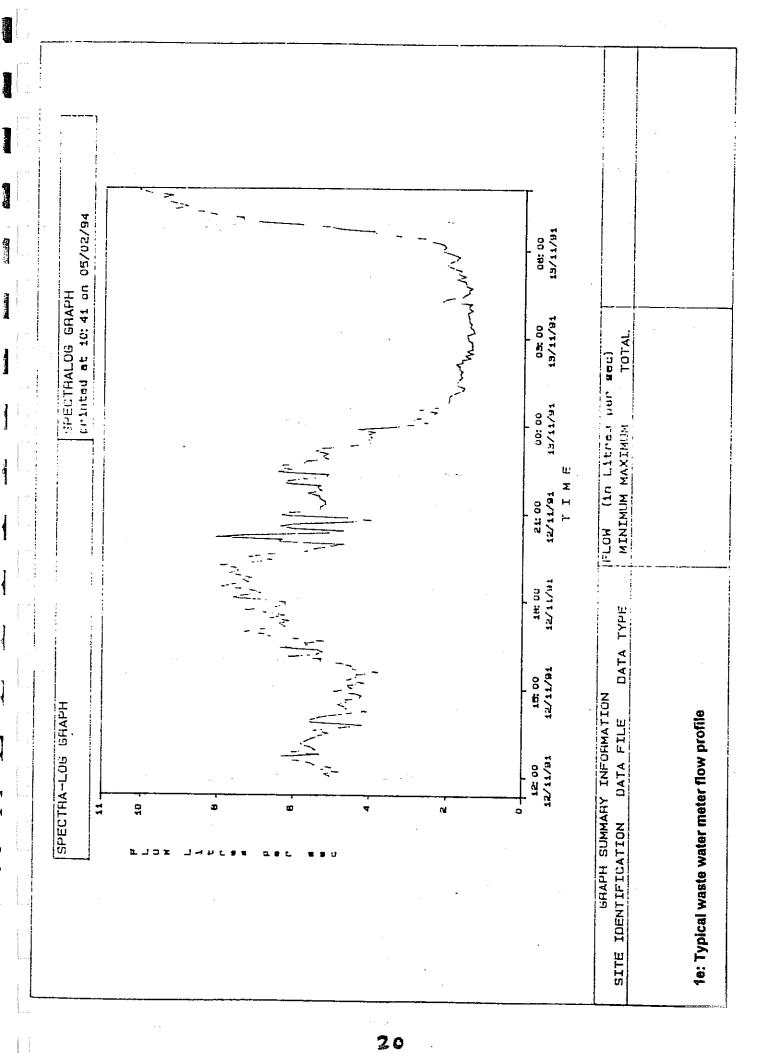
Figure 2 shows the flow graph obtained from a typical leakage meter zone for an eighteen hour period. It can be seen that the flow into the zone decreases at night (approx between 10.30pm and 4.00am) and this is when a great deal of leakage detection work can be carried out. Sounding or leak noise correlation is easier due to the lower level of background noise, and leak noise is amplified due to greater system pressures. Disruption to consumers is also minimised as most are asleep.

If a zone is identified as having potential leakage, a technique known as step testing can be used to isolate the leak to a particular section of the waste zone. Step testing is a method of closing specified valves in a leakage zone in a predetermined order, so as to gradually reduce the effective size of the zone fed by the leakage zone meter. As each valve is closed there should be a reduction in the flow recorded on the leakage zone meter, as any legitimate night consumption and leakage is cut off from supply. If the flow rate falls by a larger amount than expected for the amount of properties on a particular area of the zone, then this is indicative of leakage occurring in that particular area that has been shut off. It is then possible to isolate the leak to a particular section or main in that area.

Depending on the type of logging / recording device used, flows can be recorded on a data logger which is returned to the office and analysed against the valve closing sequence (the time that each valve is shut is recorded during the test), or the logger screen (if fitted ) can be analysed at the meter during the test, or permanently fitted loggers connected to PSTN or telemetry can be analysed on line from a remote location. Specialised step test devices can also be used which can link to PSTN lines or radio receivers to transmit data to a central location.

The advantages of steptesting are that it can isolate a leak to a small area of the waste zone, and can quantify the size of the leak by the analysis of the reduction in flow rate as the leak is shut off. The disadvantages are that a) the supply to properties is shut off, so testing can only be completed at night, and b) dirty water can be caused due to the closing / opening of valves. However these problems can be overcome by a) shutting a valve for only a few minutes at time before opening, or opening a zone isolation valve behind the shut valve to create an alternate feed, and b) flushing / maintenance of supply systems.

It is an important factor for leakage metering and step testing techniques that all isolation valves close tightly and do not let water by. An example of a step test is shown in Figure 3, with the subsequent flow chart shown in Figure 4.



ACRES T

# APPENDIX 2

# ASSESSMENT OF COST SAVINGS

The following items are identified as possible savings resulting from a reduction in leakage identified by the analysis of night flows:

- Operating costs reduction in lost water ie production costs, chemical costs, pumping costs etc
- Maintenance costs costs associated with repair of reported bursts
- Capital costs deferred capital costs of additional treatment plants / storage etc

The overall assessment of the level of leakage management must also be considered with the following areas:

- Speed and quality of repairs what is the current standards for levels of location and repair of bursts?
- ◆ Mains renewal / upgrade / rehabilitation programs it may be uneconomical to conduct active leakage control in an areas that is scheduled for mains upgrade / rehabilitation / replacement in the near future
- Pressure controls pressure control as a direct effect on leakage levels

The costs of physically locating potential unreported bursts identified by night flow analysis must also be considered eg costs of sounding, step testing, leak noise correlation once areas have been monitored, as well as the cost of any flushing / rectification of dirty water.

# APPENDIX 3

#### 1.2.2 LEAK NOISE CORRELATION

As previously discussed, water leaking from a main creates a characteristic 'noise' which travels along the main in both directions at the same velocity. A leak noise correlator is a device which uses sensative transducers to detect the sound from the main on either side of the leak. The correlator consists of a transmitter and an analyser, and two sensors. The sensors are placed either side of the suspected leak position, usually on valves, and the characteristics of the main such as diameter, material, velocity of water, and distance between the sensors, is entered into the correlator. A typical correlator is shown in Figure 1.o.

The principle of leak noise correlation is as follows and reference can be made to Fig 1.p. If the leak was midway between the two sensors then the noise pattern at each sensor would be identical at any moment in time. If the leak is nearer to one sensor than the other, then the noise generated by the leak will reach that sensor first. The transmitter initially sends a signal to sensor B. This signal is automatically amplified and transmitted by radio telemetry or internal connections to the correlator unit. The correlator analyser measures the time delay between the leak noise reaching the two sensors A and B by matching the pattern of leak noise detected at each sensor. By using the values of time delay, leak noise velocity (from tables or measurement) and the pipe length between the sensors, the correlator can compute the leak position using the following equation

L= D - <u>(V x td)</u> 2

where

L = leak position

D = distance between sensors

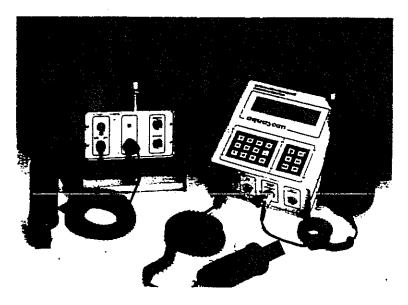
V = velocity of sound for pipe under investigation

td = time delay

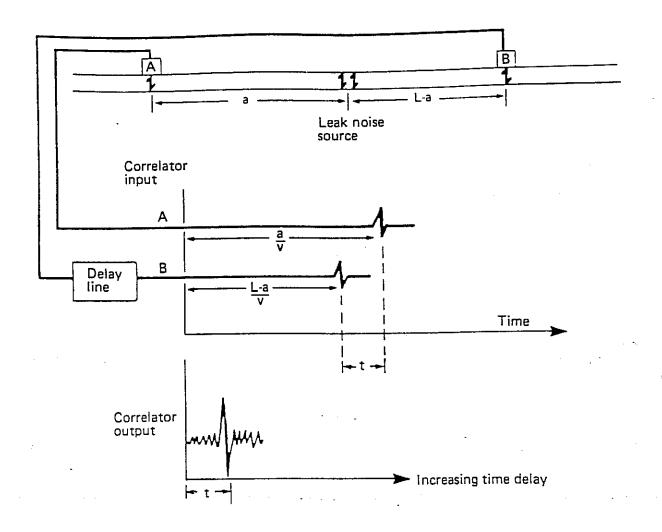
The position of the leak is then shown on the correlator screen and a typical output is shown in Figure 1.q. Once the leak location has been computed, the exact position can be measured out on the ground using a measuring wheel. Figure 1.r shows the use of a correlator in the field.

The advantage of leak noise correlation are the technique is cost effective, can be used to isolate leak noise from background noise, it is a quick method of location, is useful for locating difficult leaks, and is well suited to urban areas with a large number of fittings.

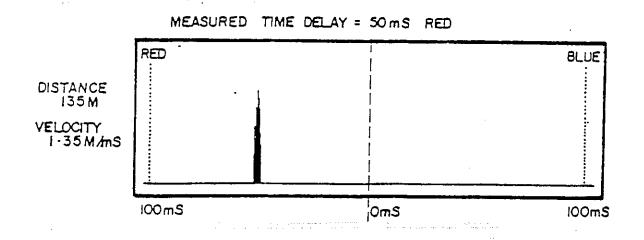
The disadvantage of this method is that it is not suitable for use in rural areas where there are large lengths of mains with relatively few fittings.



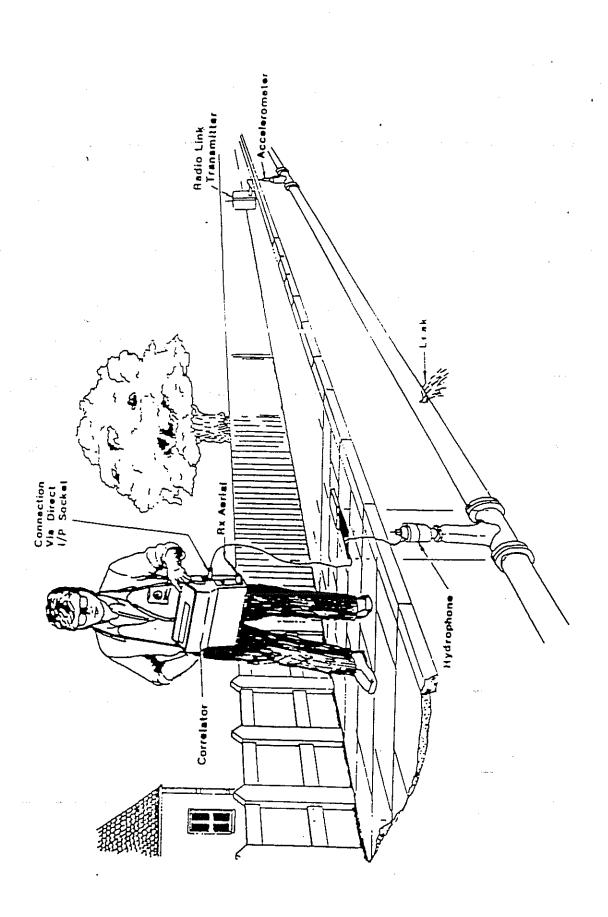
1o: Leak noise correlator



1p: Principle of leak noise correlation



1q: Leak noise correlator output



# **APPENDIX 4**

Reproduced from the Website of Tauranga Water, New Zealand.

# The Leak Detection Unit

Council has a leak detection programme that is working to reduce the number of leaks in the system. The entire district has been divided into 22 areas for investigation. Only 6 of these remain to be completed. It is a continual process that takes 3 years to be completed each time.

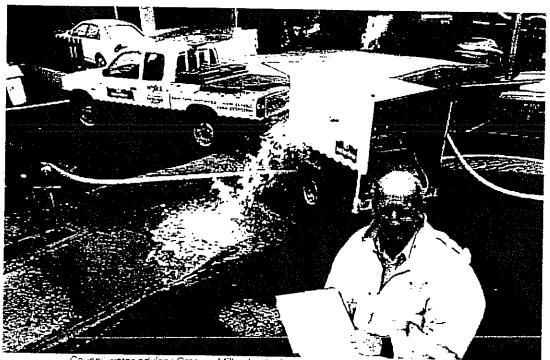
The program involves isolating sections of reticulation at night to find areas where water use is higher than normal. Unaccounted for water just means water that is above normal usage. This may be due to people irrigating, hoses left on, leaking toilets or even leaking taps. The investigations are only completed in winter - when no one needs to be watering their garden, and at night - when there is very little water use in the house. This way if water use is high, there may be a leak in the supply system.

To determine if there is unaccounted for water the supply to an area is forced to go through a very accurate water meter. If a high level of unaccounted for water is found then the investigation steps up a gear. Smaller areas may be isolated to focus in on where the problem might be and very sensitive listening equipment may used to locate the exact location of the leak so that it can be repaired.

Below is an article on the leak detection work being done.

# Finding Leaks in the Dark

From City Views, Issue 30, October/November 2000



Council water advisor Graeme Mills checks hydrants in central Tauranga prior to nightflow lesting.

Have you heard noises in the night? Have you heard someone pull up in a car in your street, fiddle around with the water valve or hydrant, then jump in the car and drive off, only to return again later and do the same.

Well never fear – it's just the council's night owl commercial water advisor Graeme Mills checking for leaks in the water pipes.

Graeme is in charge of a new three-year-long project which will find leaks in the city water pipes. The only thing is, this work must be done in the dead of night because that's when the water demand is at its lowest.

Before he heads into the dark, Graeme spends a couple of days researching plans and sectioning off an area to check.

For instance, one area he did included all the western side of Otumoetai Road from the Brookfield roundabout to the Ngatai Road roundabout. Graeme spent two days working out where the hydrants and water valves were and selected a spot where he could feed that area's water supply through a water flow trailer.

Then at 11pm he started work. The leak detection trailer was parked between two hydrants along the water main. A hose ran from one hydrant into the trailer and another hose ran out the other side and into the other hydrant. This meant all the water in that whole area had to pass through the trailer.

Once he is confident the area is completely closed off and the flow has stabilised (this usually happens about 1am) Graeme goes off to the furthest point in his planned area and starts shutting off valves.

A colleague, sits by the trailer and records the flow fluctuations as Graeme turns off the valves one by one – this takes about two hours.

"As we turn off the smaller areas we can identify any drop off in flow by looking at the meter on the flow trailer," Graeme says.

"If we switch off an area and the flow drops by 25 litres we know that we need to find out where that 25 litres has been going to. To the other extreme if someone gets up and flushes the loo the water flow will go up by 10 litres."

As well as checking for leaks, this project means the council can identify valves that won't turn off, faulty hydrants, broken equipment, leaking valves and update reticulation plans.

Once Graeme has been around the whole city checking the flows, he will then start investigating the areas of drop in flow to identify actual leaks - again in the dead of the night.

Using a highly sensitive ``sonic leak detector" he will walk along the water mains paths. A stethoscope on the detector will pick up the distinctive sound of water squirting out a hole.

Graeme says the leak detector is so accurate that he was able to find a leak in a 450 metre long pipe, almost to the exact spot.

``I love this job, even if it means working in the middle of the night, " Graeme says.

"The hardest part is when it is raining because my glasses fog up when I'm reading the plans. People must wonder about this ute parked in the street in the early hours of the morning, with the windows all fogged up."

Every now and then he will get a feeling that he is being watched and has often found people peering out from behind the curtains wondering what he is doing.

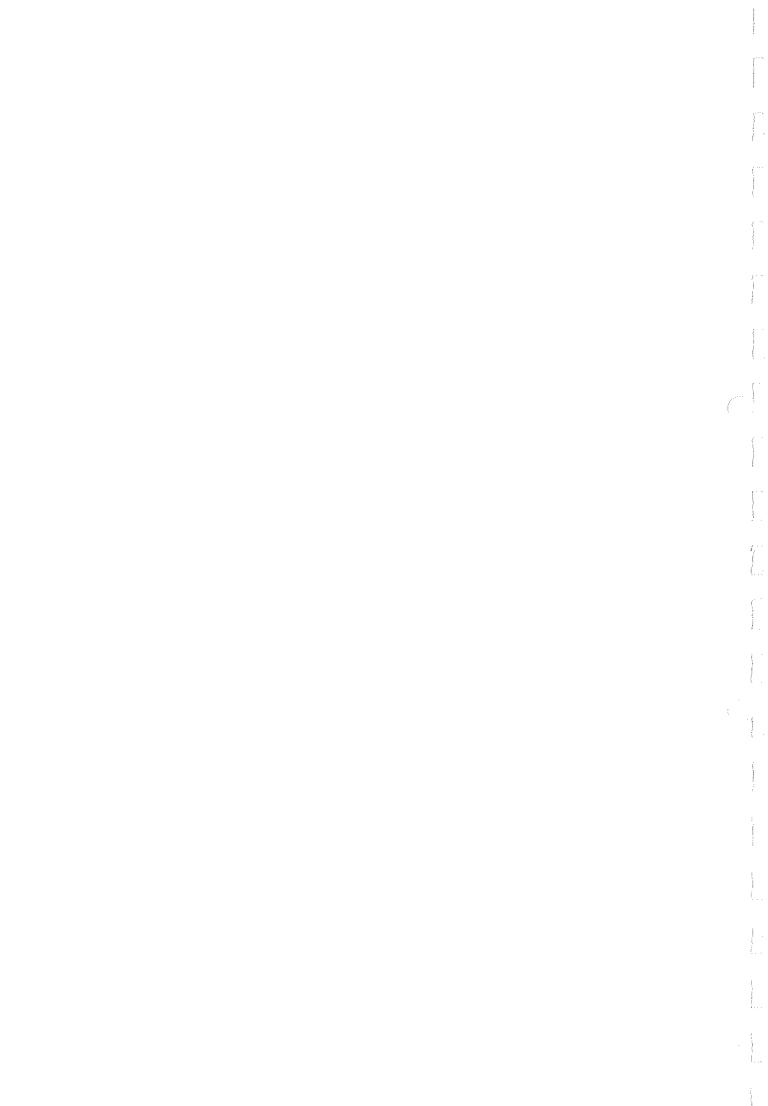
"Once I saw a man in his underpants standing under a tree in his garden, he had heard us

in the street and come out to make sure we weren't up to no good."

Graeme always contacts the police, the fire service and the councils' after hours service to let them know where he will be and what he is doing, just in case someone is concerned and phones up.

Return to Top

waterline | waterworks | watermeter | waterbill | waterlinks | home



| ü    |  | 2003-2004  | 2004-2005                                    | 2005-2006                               | 2006-2007  | 2007-2008  | 2008-2009  |
|------|--|------------|--|---|------------|------------|--|
|      | MOONE                                    | BUDGET     | PROJECTION                                   | PROJECTION                              | PROJECTION | PROJECTION | PROJECTION   |
|      | WATER SAI ES                             | ¥          | <i>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</i> | e                                       | e          | 6          |  |
| 1005 | S(IDD) V FFE.RESIDENTIAL                 | 1 052 285  | 4 084 200                                    | 4 406 000                               | 4 400      | 4 450 700  | 0000   |
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| 2701 | Ť  | 158,/8c,1  | \$1,650,000                                  | 1,423,864                               | 1,244,639  | 1,065,414  | 886, 189   |
| 1026 | 7  | 113,469    | \$116,000                                    | 154,632                                 | 198,917    | 243,203    | 287,488  |
| 1028 | 一  | 127,042    | \$155,000                                    | 110,462                                 | 93,882     | 77,301     | 60,721   |
| 1035 | CONSUMPTION-NON RESIDENTIAL              | 603,500    | \$603,500                                    | 644,285                                 | 837,570    | 966,427    | 1.095.284  |
| 2268 |  | (30,000)   | (30,000)                                     | (30,000)                                | (30,000)   | (30,000)   | (30,000)   |
| 2273 | GOVERNMENT REBATE - PENSIONERS           | (109,000)  | (113,200)                                    | (115,500)                               | (117,800)  | (120,200)  | (122 600)  |
| 2275 |  | 1          | 1  | 1                                       | -          |            | The state of the s |
| 2280 | CONSUMPTION REBATE-PENSIONER             | (114,200)  | (116,500)                                    | (118,800)                               | (121,200)  | (123,600)  | (126.100)  |
| 2285 | PENSIONERS TENANT REBATE                 | (4,200)    | (6,100)                                      | (6,200)                                 | (6,300)    | (6,400)    | (6.500)  |
| 2290 | AQWEST REBATE-SENIORS                    | (7,100)    | (7,200)                                      | (7,300)                                 | (2,400)    | (7,500)    | (7.700)  |
| 2297 | SENIOR TENANT REBATE                     | (009)      | (009)  | (009)                                   | (009)      | (009)      | (900)  |
|      |  | 5,539,819  | 5,763,400                                    | 5,627,443                               | 5,735,708  | 5.780.945  | 5.827.382  |
|      |  |            |  | *************************************** |            |            |  |
|      | DEVELOPERS CONTRIBUTIONS                 |            |  |   |            |            |  |
| 1070 | MAINS SUBDIVISION                        | 150,000    | 150,000                                      | 155,000                                 | 155,000    | 155,000    | 155,000  |
| 1075 | HEADWORKS                                | 400,000    | 400,000                                      | 400,000                                 | 400,000    | 400,000    | 400.000  |
|      |  | 250,000    | 250,000                                      | 555,000                                 | 555,000    | 555,000    | 555,000  |
|      |  |            |  |   |            |            |  |
|      | INTEREST RECEIVED                        |            | -  |   |            |            |  |
| 1090 | AQWEST MAIN A/C INTEREST EARNED          | 71,250     | 75,000                                       | 75,000                                  | 75,000     | 75,000     | 75.000   |
| 1095 | HEADWORKS RES.INTEREST EARNED            | 174,300    | 227,400                                      | 217,000                                 | 223,000    | 194,000    | 171,000  |
| 1100 | EDP UPGRADE INTEREST EARNED              | 13,000     | 14,300                                       | 17,000                                  | 21,000     | 14,000     | 17,000   |
| 1105 | SUBDIVISION RES.INTEREST EARNED          | 49,000     | 68,200                                       | 71,000                                  | 75,000     | 000'62     | 84.000   |
| 1110 | ASSET REPLACE.RES.INTEREST EARNED        | 315,000    | 456,200                                      | 553,000                                 | 615.000    | 738.000    | 870 000  |
| 1114 | BUSINESS DEVELOPMENT INTEREST EARNED     | 6,600      | 10,300                                       | 13,000                                  | 15,000     | 12,000     | 15,000   |
|      |  | 629,150    | 851,400                                      | 946,000                                 | 1,024,000  | 1,112,000  | 1,232,000  |
|      |  |            |  |   |            |            |  |
|      | PROFIL ON SALE OF ASSETS                 |            | ,      |   |            |            | Þ  |
| 1222 | PROFIT/LOSS ON SALE - BUILDINGS          | (43,969)   | 1  | l<br>avi                                | 1          | 1          | ۱F   |
| 1223 | PROFITILOSS ON SALE - RESERVOIRS         | (96,535)   | 1  | 1                                       | 1          | •          | Ė  |
| 1224 | PROFIT/LOSS ON SALE - TREATMENT PLANTS   | 1          | 1  | ı                                       |            |            | Ė  |
| 1227 | PROFIT/LOSS ON SALE - BORES & PUMPS      | 1          |  | 1                                       |            | ı          | <u> </u>   |
| 1228 | PROFIT/LOSS ON SALE - PLANT & EQUIPMENT  | 1          | •  |   |            |            | JĹ   |
| 1229 | PROFIT/LOSS ON SALE - MOTOR VEHICLES     | (6,714)    | (2,000)                                      | (2,000)                                 | (9000)     | (5,000)    | (5.00)   |
| 1231 | PROFIT/LOSS ON SALE - TOOLS              | •          | •  | 1                                       |            | 1          | X  |
|      | 5 year finance plan 2004_5 to 2008_9.xls |            |  |   |            |            | a  |
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|  | #002-2004 | ZU04-ZU05  | 2002-2002  | 2006-2007  | 2007-2008  | 2008-2009  |
| 1232 PROFIT/LOSS ON SALE - OFFICE EQUIP          | 125050    | PROJECTION | PROJECTION | PROJECTION | PROJECTION | PROJECTION   |
| Ť  | 1070 2777 | 1 000      | 1 60       |            | 1          |  |
|  | (147,218) | (000'6)    | (000,4)    | (2,000)    | (2,000)    | (2,000)  |
| ALL OTHER REVENUE                                |           |            |            |            |            |  |
| 1006 WAWA SENIOR RATE RECOUP                     | 008'9     | 9,100      | 9,300      | 009'6      | 9.700      | 006.6  |
|  | 3,000     | 3,000      | 3,000      | 3,000      | 3,000      | 3.000  |
|  | 100,000   | 100,000    | 100,000    | 100,000    | 100,000    | 100,000  |
| <del>- i</del>                                   | 3,000     | 4,000      | 4,000      | 4,000      | 4,000      | 4,000  |
| _  | 21,600    | 32,000     | 32,700     | 25,050     |            | 1  |
| 1  | 32,600    | 33,300     | 34,000     | 34,700     | 35,400     | 36,200   |
|  | 13,000    | 10,000     | 10,000     | 10,000     | 10,000     | 10,000   |
|  | 25,750    | 34,200     | 34,900     | 35,600     | 36,300     | 37,000   |
|  | 40,000    | 40,000     | 40,000     | 40,000     | 40,000     | 40,000   |
| 1150 FINANCIAL ENQUIRIES RATE                    | 20,000    | 30,000     | 30,000     | 30,000     | 30.000     | 30,000   |
| 1030 INTEREST PENALTIES                          | 25,000    | 21,000     | 21,900     | 22,800     | 23.800     | 24.800   |
| 1  | 105       | 105        | 105        | 105        | 105        | 105  |
| 1156 METER READING CHARGES                       | 5,000     | 7,000      | 7,000      | 7.000      | 7.000      | 7 000  |
| 1160 METERED SERVICE REPAIRS-DEBTORS             | 15,000    | 10,000     | 10,000     | 10 00      | 10 000     | 000 01   |
| 1164 UNIFORM REIMBURSEMENT                       |           | · ·        | 1          | ,          | 7          | ממחים:   |
| 1165 CHARGEABLE WORKS DEBTORS                    | 35 000    | 15 000     | 15,000     | 15,000     | 15 000     | 7 000  |
| 1166 SUNDRY DEBTORS                              |           |            |            |            | 200,0      | ממחיבי   |
|  | 339,055   | 339,605    | 342,605    | 337.255    | 314.605    | 317 105  |
| TOTAL REVENUE                                    | 6.910,806 | 7.499.405  | 7.466.048  | 7.646.963  | 7 757 550  | 7 926 487  |
|  |           |            |            | Paral I    | 200.11     | 107011   |
| ONGOING WORKS                                    |           |            |            |            |            | The state of the s |
|  | 48,700    | 000'06     | 91,800     | 93,700     | 95.600     | 97,600   |
|  | 43,600    | 20'000     | 51,000     | 52,100     | 53,200     | 54,300   |
| $\neg$   | 10,700    | 2,000      | 2,000      | 5,000      | 5,000      | 5,000  |
|  | 178,000   | 203,000    | 207,100    | 211,300    | 215,600    | 220,000  |
| <u>-</u>   | 180,300   | 224,000    | 228,500    | 233,100    | 237,800    | 242,600  |
|  | 235,800   | 329,900    | 336,500    | 343,300    | 350,200    | 357,300  |
| Ti.  | 154,000   | 157,100    | 160,300    | 163,600    | 166,900    | 170,300  |
|  | 5,400     | 5,600      | 5,800      | 000'9      | 6,200      | 6.400  |
| T  | 43,600    | 44,500     | 45,400     | 46,400     | 47,400     | 48,400   |
| T)   | 324,300   | 250,000    | 237,000    | 241,800    | 246,700    | 251,700  |
|  | 148,900   | 151,900    | 155,000    | 158,100    | 161,300    | 164.600  |
|  | 6,400     | 009'9      | 008'9      | 2,000      | 7,200      | 7.400  |
|  | 1,000     |            |            |            | ŀ          |  |
| 2076 METER READING                               | 52,100    | 53,200     | 54,300     | 55,400     | 56.600     | 57 800   |
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|------|---|---|-------------|---|--|--|-------------|
|      |   | 2003-2004                               | 2004-2005   | 2005-2006                               | 2006-2007  | 2007-2008  | 2008-2009   |
|      | T   | BUDGET                                  | PROJECTION  | PROJECTION                              | PROJECTION   | PROJECTION   | PROJECTION  |
| 2300 | T   | 81,953                                  | 83,600      | 85,300                                  | 87,100   | 88,900   | 90,700      |
| 2330 |   | 37,500                                  | 41,432      | 43,100                                  | 44,900   | 46,700   | 48,600      |
| 2332 | i   | 9,874                                   | 10,300      | 10,800                                  | 11,300   | 11,800   | 12,300      |
| 2333 | T   | 37,961                                  | 42,345      | 44,100                                  | 45,900   | 47,800   | 49,800      |
| 2335 | T   | 19,985                                  | 16,616      | 17,300                                  | 18,000   | 18,800   | 19,600      |
| 2340 | T i   | 19,000                                  | 21,381      | 22,300                                  | 23,200   | 24,200   | 25,200      |
| 2345 | SICK LEAVE  | 13,000                                  | 13,600      | 14,200                                  | 14,800   | 15,400   | 16,100      |
| 2350 | STAFF SAFETY TRAINING                                   | 009'9                                   | 006'9       | 7,200                                   | 7,500  | 7,800  | 8,200       |
| 2355 |   | 25,900                                  | 27,000      | 28,100                                  | 29,300   | 30,500   | 31,800      |
| 2360 | - (   | 34,000                                  | 34,700      | 35,400                                  | 36,200   | 37,000   | 37,800      |
| 2373 |   | 53,100                                  | 000'99      | 57,700                                  | 58,900   | 60,100   | 61,400      |
| 2501 | PRIVATE WORKS   | 35,000                                  | 35,000      | 35,000                                  | 35,000   | 35,000   | 35.000      |
| 2380 | [   | (336,509)                               | (348,274)   | (349,600)                               | (360,900)  | (372,500)  | (384 800)   |
| 2400 | GROSS SALARIES & WAGES                                  | 1,475,549                               | 1,549,200   | 1,584,400                               | 1.646.700  | 1.711.500  | 1 779 000   |
| 2405 | LESS ALLOCATED TO WORKS                                 | (1,475,549)                             | (1,549,200) | (1,584,400)                             | (1.646.700)  | (1.711.500)  | (1,779,000) |
|      |   | 1,470,164                               | 1,621,400   | 1,635,400                               | 1,668,000  | 1,701,200  | 1,735,100   |
|      |   |   |             |   |  |  |             |
|      | ELECTRICITY   |   |             |   |  |  |             |
| 2010 |   | 358,000                                 | 310,400     | 307,300                                 | 304,300  | 301,300  | 298,300     |
|      |   | 358,000                                 | 310,400     | 307,300                                 | 304,300  | 301,300  | 298,300     |
|      | OTUED SEDVICE EVDENISES                                 |   |             |   | man and a second |  |             |
| 2005 | Ť   |   | 000         |   |  |  |             |
| 2000 | _ ~   |   | 000,21      | -                                       | 12,800   | •  | 13,500      |
| 207  |   | 10,000                                  | 30,000      | 30,000                                  | 20,000   | 20,000   | 20,000      |
| 2080 | T   | 10,000                                  | 10,500      | 11,100                                  | 11,700   | 12,300   | 13,000      |
| 2084 | ENGINEERING ANALYSIS                                    | 2,000                                   | 7,000       | 8,000                                   | 8,000  | 000'6  | 000'6       |
|      |   | 27,000                                  | 005'69      | 49,100                                  | 52,500   | 41,300   | 55,500      |
|      | BAD DEBTS   |   |             | *************************************** |  |  |             |
| 186  | BAD DEBTS   | 2.000                                   | 2.000       | 2 000                                   | 2 000  | 0000   | 000 6       |
|      |   | 2.000                                   | 2.000       | 000 6                                   | 000 0  | 000 6  | 000,4       |
|      |   |   |             |   | 2017   | 200.4  | 7,000       |
|      |   |   |             |   |  | The state of the s |             |
| 2160 |   | 6,400                                   | 2,000       | 7,200                                   | 7,400  | 7,600  | 7.800       |
| 2165 |   | 50,300                                  | 113,600     | 80,000                                  | 81,600   | 83,300   | 85.000      |
| 2167 | EDP MTCE CONTRACT                                       | 57,700                                  | 109,150     | 80,000                                  | 81,600   | 83,300   | 85,000      |
|      |   | 114,400                                 | 229,750     | 167,200                                 | 170,600  | 174,200  | 177.800     |
| .    |   |   |             |   |  |  |             |
|      | E vent former plan 2004 E to 2000 0 Jls applied and Att |   |             |   |  | 3 1100-1   |             |

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|  |                                |  |            |  |            |  | THE PERSON NAMED AND PERSON NAMED IN THE PERSO |
|--|--------------------------------|--|------------|--|------------|--|--|
|  |                                | 2003-2004                              | 2004-2005  | 2005-2006  | 2006-2007  | 2007-2008  | 2008-2009  |
|  |                                | BUDGET                                 | PROJECTION | PROJECTION   | PROJECTION | PROJECTION   | PROJECTION   |
|  | _                              |  |            |  |            |  |  |
| 2452   | DEPN-BUILDINGS AT COST         | 35,170                                 | 47,130     | 46,927   | 45,530     | 44,175   | 42,860   |
| 2453   |                                | 172,606                                | 287,082    | 311,174  | 325,248    | 370.097  | 372.220  |
| 2454   |                                | 360,253                                | 373,636    | 512,406  | 536,508    | 540,484  | 540,216  |
| 2455   | 1                              | 44,997                                 | 48,152     | 55,566   | 65,850     | 76,240   | 91,974   |
| 2456   |                                | 277,255                                | 277,255    | 277,255  | 277,255    | 277,255  | 277,255  |
| 2457   | T                              | 133,122                                | 305,363    | 371,963  | 374,213    | 440,213  | 440,213  |
| 2458   |                                | 4,496                                  | 6,452      | 4,565  | 3,460      | 2,652  | 2,054  |
| 2459   |                                | 73,202                                 | 52,571     | 73,056   | 75,178     | 90,620   | 74,888   |
| 2460   | <b>—</b> †                     | 93,574                                 | 48,920     | 56,970   | 61,770     | 020'29   | 72,870   |
| 2461   |                                | 5,806                                  | 14,387     | 10,048   | 10,203     | 10,042   | 9,877  |
| 2462   | DEPN-OFFICE EQUIPMENT AT COST  | 35,294                                 | 90,572     | 65,929   | 33,127     | 45,051   | 194,839  |
|  |                                | 1,235,775                              | 1,551,519  | 1,785,858  | 1,808,341  | 1,963,899  | 2,119,266  |
|  |                                |  |            |  |            |  |  |
|  | INSURANCES                     |  |            |  |            |  | and the state of t |
| 2118   | INSURANCE-W/COMP (ADMIN)       | 23,100                                 | 21,500     | 22,000   | 22,500     | 23,000   | 23,500   |
| 2185   |                                | 16,210                                 | 16,000     | 16,400   | 16,800     | 17,200   | 17,600   |
| 2186   |                                | 72,031                                 | 000'09     | 61,200   | 62,500     | 63,800   | 65,100   |
| 2187   | INSURANCE-P/LIAB, ENG.WORKS    | 40,641                                 | 35,000     | 35,700   | 36,500     | 37,300   | 38,100   |
| 2365   | INSURANCE-W/COMP (FIELD STAFF) | 43,389                                 | 20,000     | 20,400   | 20,900     | 21,400   | 21,900   |
|  |                                | 195,371                                | 152,500    | 155,700  | 159,200    | 162,700  | 166,200  |
|  | T                              | . :                                    |            | \$   |            |  |  |
| 2270   | LOAN INTEREST                  | ·                                      | 1          | ı  | t          | 1  |  |
|  |                                | ** ** ** ** ** ** ** ** ** ** ** ** ** | -          | The state of the s | 1          | 1  |  |
|  | LEGAL EXPENSES                 |  |            |  |            | - The state of the |  |
| 2195   | LEGAL EXPENSES                 | 000'09                                 | 60,000     | 25,000   | 25,000     | 25,000   | 25,000   |
|  |                                | 000'09                                 | 000'09     | 25,000   | 25,000     | 25,000   | 25,000   |
| With the same of t | RENT                           |  |            |  |            |  |  |
| 2000   | $\neg$                         | 37,000                                 | 38,200     | 39,400   | 40,600     | 41,900   | 43,200   |
| 2122   | OFFICE RENT                    | 32,300                                 | 33,300     | 34,300   | 26,500     | 1  |  |
|  |                                | 008'69                                 | 71,500     | 73,700   | 67,100     | 41,900   | 43,200   |
|  |                                |  |            |  |            |  |  |

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|      |  | 2003-2004                                | 2004-2005  | 2005-2006  | 2006-2007  | 2007-2008  | 2008-2009  |
|------|--|--|------------|------------|------------|------------|--|
|      |  | BUDGET                                   | PROJECTION | PROJECTION | PROJECTION | PROJECTION | PROJECTION   |
|      | SALARIES & WAGES   |  |            |            |            |            |  |
| 2100 |  | 537,727                                  | 584,000    | 581,600    | 604,900    | 629,100    | 654,300  |
| 2310 | SALARIES & WAGES-ENGINEER.ADMIN  | 222,748                                  | 221,300    | 230,200    | 239,400    | 249,000    | 259,000  |
|      |  | 760,475                                  | 805,300    | 811,800    | 844,300    | 878,100    | 913,300  |
|      |  |  |            |            |            |            |  |
|      | $\neg$   |  |            |            | -          |            |  |
| 2104 |  | 47,578                                   | 49,500     | 51,500     | 53,600     | 55,700     | 006,73   |
| 2105 | OCCUPATIONAL SUPER-ADMIN   | 45,795                                   | 52,800     | 54,900     | 57,100     | 59,400     | 61,800   |
| 2312 | SUPERANNUATION-ENGINEER.ADMIN  |  | 1          | 1          |            |            | - 1 to A Andre - 1 to - |
| 2314 | OCCUPATIONAL SUPER-ENG.ADMIN   | 18,075                                   | 15,700     | 16,300     | 17,000     | 17,700     | 18,400   |
| -    |  | 111,448                                  | 118,000    | 122,700    | 127,700    | 132,800    | 138,100  |
|      | The state of the s |  |            |            |            |            |  |
|      | ALL OTHER EXPENSES   |  |            |            |            |            |  |
| 2151 |  |  | •          | 1          | 1          | 120,000    | 1  |
| 2106 | T  | 2,000                                    | 2,000      | 2,000      | 2,000      | 2,000      | 2,000  |
| 2107 | CORPORATE UNIFORMS   | 20,064                                   | 12,000     | 12,000     | 12,000     | 12,000     | 12,000   |
| 2109 | FBT-VEHICLES   | 10,000                                   | 10,000     | 10,000     | 10,000     | 10,000     | 10,000   |
| 2110 | ADMIN.STAFF TRAINING   | 6,100                                    | 9 9        | 6,500      | 6.700      | 0.900      | 7,100  |
| 2111 | EMPLOYEES ASSISTANCE PROGRAM   | 1,200                                    | 700        | 800        | 006        | 1,000      | 1.100  |
| 2115 | PRIVATE VEHICLE ALLOWANCES   |  |            | 1          | •          |            |  |
| 2120 | $\vdash$   | 39,600                                   | 34,000     | 34,000     | 34,000     | 30,000     | 31 000   |
| 2124 | TELEPHONE  | 42,500                                   | 43,400     | 44,300     | 45,200     | 46.200     | 47.200   |
| 2125 | WATER SERVICE CENTRE MAINTENANCE   | 41 774 744 744 744 744 744 744 744 744 7 | 25,000     | 25,500     | 26,100     | 26.700     | 27.300   |
| 2126 | TRAVELLING & ACCOM.EXPENSES  | 5,000                                    | 10,000     | 15,000     | 10,000     | 10,000     | 10,000   |
| 2136 | ADVERTISING  | 15,000                                   | 20,400     | 20,900     | 21,400     | 21,900     | 22.400   |
| 2138 | $\neg$   | 7,500                                    | 7,900      | 10,000     | 10,000     | 10,000     | 10,000   |
| 2140 | PUBLIC RELATIONS   | 33,800                                   | 115,000    | 36,000     | 36,800     | 37,600     | 38,400   |
| 2142 | WATER CONSERVATION PUBLICITY   | 24,500                                   | 18,400     | 18,800     | 19,200     | 19.600     | 20.000   |
| 2150 |  | 19,000                                   | 19,400     | 19,800     | 20,200     | 20,700     | 21.200   |
| 2155 |  | 8,600                                    | 11,300     | 11,600     | 11,900     | 12,200     | 12,500   |
| 2170 | 一  | 20,500                                   | 19,600     | 19,600     | 19,600     | 19,600     | 19,600   |
| 2175 |  | 1,600                                    | 1,700      | 1,800      | 1,900      | 2,000      | 2,100  |
| 2180 |  | 5,300                                    | 4,000      | 4,100      | 4,200      | 4,300      | 4,400  |
| 2200 | OFFICE EXPENSES  | 8,600                                    | 8,800      | 000'6      | 9,200      | 9,400      | 009'6  |
| 2202 |  | 2,200                                    | 3,300      | 3,400      | 3,500      | 3,600      | 3,700  |
| 2205 |  | 20,500                                   | 21,000     | 21,500     | 22,000     | 22,500     | 23,000   |
| 2210 | PRINTING & STATIONERY  | 25,600                                   | 28,100     | 28,700     | 29,300     | 29,900     | 30,500   |
| 2215 | RECORDS MANAGEMENT   | 0000'9                                   | 000'9      | 000'9      | 6,000      | 000'9      | 6.000  |
|      | 5 year finance plan 2004 5 to 2008 9.xls 26/11/2004 9:16 AM  |  |            |            |            |            |  |

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AQWEST - BUNBURY WATER BOARD 5 YEAR FINANCE PLAN 2004/05 TO 2008/09

|      |   | 2003-2004 | 2004-2005  | 2005-2006  | 2006-2007  | 2007-2008  | 2008-2009  |
|------|---|-----------|------------|------------|------------|------------|------------|
|      | A COLUMN TO THE TOTAL THE | BUDGET    | PROJECTION | PROJECTION | PROJECTION | PROJECTION | PROJECTION |
| 2217 | RELOCATION EXPENSES   | 11,540    | P          | 1          |            |            |            |
| 2235 | TAX EQUIVALENT PLANNING   | 7,600     | 000'9      | 8,000      | 6,400      | 009'9      | 6.800      |
| 2240 | VALUATION EXPENSES  | 10,000    | 35,000     | 10,000     | 10,000     | 10,000     | 40,000     |
|      | ASSET REVALUATION (CONTINGENCY)   |           | 15,000     |            |            |            |            |
| 2153 | _   | 2,000     | 30,000     | 10,000     | 10,000     | 10.000     | 10.000     |
|      | WATER RESOURCE LICENCE ADMINISTRATION FEES  |           |            | •          | 1          |            |            |
| 2250 | BOARD MEMBERS FEES  | 41,600    | 30,600     | 31,300     | 32,000     | 32,700     | 33.400     |
| 2255 | CONFERENCE EXPENSES   | 4,400     | 4,500      | 4,600      | 4,700      | 4,800      | 4,900      |
| 2260 | MEETING EXPENSES  | 5,400     | 5,600      | 5,800      | 9'000      | 6,200      | 6.400      |
| 2265 |   | 4,400     | 4,500      | 4,600      | 4,700      | 4,800      | 4,900      |
| 2316 |   | 2,000     | 4,600      | 4,700      | 4,800      | 4,900      | 5,000      |
| 2370 | PAYROLL TAX   | 36,200    | 48,000     | 49,000     | 20,000     | 51,000     | 52,100     |
|      |   | 455,304   | 612,100    | 489,300    | 490,700    | 615,100    | 534,600    |
|      | TOTAL EXPENSES  | 4,859,237 | 5,593,969  | 5,625,058  | 5,719,741  | 6,039,499  | 6,208,366  |
|      |   |           |            |            |            |            |            |
|      | OPERATING PROFIT  | 2,051,569 | 1,905,436  | 1,840,990  | 1,927,222  | 1,718,051  | 1.718.121  |
|      |   |           |            |            |            |            |            |
| 2177 | INCOME TAX  | 617,500   | 571,600    | 552,300    | 578,200    | 515,400    | 515,400    |
|      |   | 617,500   | 571,600    | 552,300    | 578,200    | 515,400    | 515,400    |
|      | OPERATING PROFIT AFTER TAX  | 1,434,069 | 1,333,836  | 1,288,690  | 1,349,022  | 1,202,651  | 1,202,721  |
|      |   |           |            |            |            |            |            |

| Total Capex<br>Total Opex<br>Total Depreciation<br>Total Expenditure |      | 03-2004<br>IDGET<br>3,436,395<br>3,624,662<br>2,210,043<br>9,271,100 |     | 004-2005<br>ROJECTION<br>3,037,000<br>4,055,450<br>2,210,043<br>9,302,493 |           | 05-2006<br>ROJECTION<br>1,848,300<br>3,853,200<br>2,210,043<br>7,911,543 |     | 06-2007<br>ROJECTION<br>2,268,800<br>3,926,400<br>2,210,043<br>8,405,243 |     | 07-2008<br>ROJECTION<br>2,149,800<br>4,091,600<br>2,210,043<br>8,451,443 |     | 08-2009<br>COJECTION<br>1,764,000<br>4,106,200<br>2,210,043<br>8,080,243 |
|--|------|--|-----|---|-----------|--|-----|--|-----|--|-----|--|
|  | 2001 | 3-2004   | 20  | 04-2005   | 200       | 5-2006   | 700 | 6-2007   | 200 | 17-2008  | 200 | 8-2009   |
|  |      | OGET   |     | OJECTION  |           | DJECTION   |     | OJECTION   |     | OJECTION   |     | OJECTION   |
| SUPPLY FEE-NON RATEABLE  |      | 113469   |     | 116000  | • • • • • | 154632   |     | 198917   |     | 243203   |     | 287488   |
| RATES-RESIDENTIAL VACANT LAND  |      | 127042   |     | 155000  |           | 110462   |     | 93882  |     | 77301  |     | 60721  |
| Net transfers from Asset Replacement Reserves                        | \$   | 1,456,264  | \$  | 1,750,000   | S         | 500,000  | S   | 1,325,000  | S   | 300,000  | \$  | 315,000  |
| Interest Received  | 5    | 629,150  | \$  | 851,400   | \$        | 946,000  | 5   | 1,024,000  | S   | 1,112,000  | S   | 1,232,000  |
| Developers Contributions   | S    | 550,000  | S   | 550,000   | \$        | 555,000  | S   | 555,000  | \$  | 555,000  | \$  | 555,000  |
| Profit(Loss) On Asset Disposal                                       | -\$  | ,  | -S  | .,  | -\$       | 5,000  | -\$ | 5,000  | -\$ | 5,000  | -5  | 5,000  |
| All Other Revenue  | S    | 339,055  | Ş   | 339,605   | S         | 342,605  | S   | 337,255  | Ş   | 314,605  | \$  | 317,105  |
| TOTAL Adjustments  | \$   | 3,067,762  | S   | 3,757,005   | S         | 2,603,699  | 2   | 3,529,054  | S   | 2,597,109  | 5   | 2,762,314  |
| Adjusted Total Capex   | s    | 368,633  | -\$ | 720,005   | -\$       | 755,399  | -S  | 1,260,254  | -5  | 447,309  | -S  | 998,314  |
| Total Opex   | S    | 3,624,662  | S   | 4,055,450   | S         | 3,853,200  | \$  | 3,926,400  | S   | 4,091,600  | S   | 4,106,200  |
| Total Depreciation   | S    | 2,210,043  | \$  | 2,210,043   | \$        | 2,210,043  | S   | 2,210,043  | \$  | 2,210,043  | \$  | 2,210,043  |
| Adjusted Total Expenditure   | S    | 6,203,338  | S   | 5,545.488   | 5         | 5,307,844  | \$  | 4,876,189  | S   | 5,854,334  | S   | 5,317,929  |
| Total Demand   |      | 6,846,789  |     | 7,190,000   |           | 7,280,000  |     | 7,370,000  |     | 7,460,000  |     | 7,550,000  |
| Res Demand   |      | 4,884,027  |     | 5,128,850   |           | 5,193,050  |     | 5,257,249  |     | 5,321,449  |     | 5,385,649  |
| Nonres Demand  |      | 1,962,762  |     | 2,061,150   |           | 2,086,950  |     | 2.112.751  |     | 2.138.551  |     | 2,164,351  |
| Number Connections   |      | 13186  |     | 14200   |           | 14592  |     | 14994  |     | 15408  |     | 15833  |
| Res Connections  |      | 11332  |     | 12204   |           | 12540  |     | 12886  |     | 13242  |     | 13607  |
| Nonres Connections   |      | 1854   |     | 1996  |           | 2052   |     | 2108   |     | 2166   |     | 2226   |
| Demand Per Connection  |      | 519  |     | 506   |           | 499  |     | 492  |     | 484  |     | 477  |
| Res  |      | 431  |     | 420   |           | 414  |     | 408  |     | 402  |     | 396  |
| Nonres   |      | 1059   |     | 1032  |           | 1017   |     | 1002   |     | 987  |     | 972  |

|                                 | 2003- | วกถา     | 700 | 1-2005     | 'n | 05-2006        | 200   | 6-2007  | 700  | 7-2008   | land | 08-2009  | 1 4 17 | ERAGE    |
|---------------------------------|-------|----------|-----|------------|----|----------------|-------|---------|------|----------|------|----------|--------|----------|
|                                 | BUD   |          | _   |            | -  |                |       |         |      | DIECTION |      | OJECTION | IA V   | ERAGE    |
| 17                              |       | J        | 1   | /1LC 11Q.1 | 1  | All Cons       | •     |         | 1100 | JILC HON | FK   | OTECTION | -      |          |
| Average Fixed Costs             | S     | 192.77   | S   | 110.00     | S  | 104.86         |       |         | S    | 117.31   | S    | 82.84    | s      | 121.47   |
| Average SRMC                    | S     | 0,53     | 5   | 0.55       | 5  | 0,52           | S     | 0.52    | Š    | 0.54     | s    | 0.53     | s      | 0.53     |
| Average LRMC                    | S     | 0,91     | Ŝ   | 0,77       | S  |                | S     |         | S    | 0.78     | S    | 0.70     | 5      | 0,77     |
|                                 | 1     |          |     |            |    | Residential (  | Susti | omers   |      |          |      |          | Ť      |          |
| Fixed Costs                     | S     | 169.02   | S   | 95.57      | S  | 92,76          | S     | 64,78   | S    | 103,26   | 5    | 73.79    | 5      | 107.06   |
| SRMC                            | 5     | 0.57     | S   | 0.59       | S  | 0.55           | S     | 0,54    | ŝ    | 0.57     | S    | 0,56     | s      | 0.56     |
| LRMC                            | S     | 0.94     | S   | 18.0       | S  | 0.76           | S     | 0.69    | S    | 0,82     | S    | 0.73     | \$     | 0.80     |
| Total Fee to Consumer of 350kl  | S     | 275.00   | S   | 275.00     | \$ | 275.00         | S     | 275.00  | S    | 275.00   | S    | 275,00   | 5.     | 275.00   |
| Fixed Fee                       | S     | 88.00    | S   | 88.00      | S  | 88.00          | S     | 88.00   | S    | 88.00    | S    | 88.00    | \$     | 88.00    |
| Variable Fee                    | 5     | 0.53     | \$  | 0.53       | S  | 0.53           | S     | 0.53    | S    | 0.53     | S    | 0.53     | S      | 0.53     |
| Average Total Fee               | 5     | 0.79     | S   | 0.79       | \$ | 0.79           | 5     | 0.79    | S    | 0,79     | S    | 0.79     | 5      | 0.79     |
|                                 |       |          |     |            |    | Non Residentia | ıl Cu | stomers |      |          |      |          |        |          |
| Fixed Costs                     | S     | 366,56   | S   | 179.11     | S  | 198.56         | S     | 139.30  | S    | 221.71   | S    | 155.29   | 5      | 226.47   |
| SRMC                            | S     | 0.45     | S   | 0.48       | \$ | 0.45           | S     | 0.44    | 5    | 0.47     | S    | 0.46     | S      | 0.45     |
| LRMC                            | S     | 0.81     | S   | 0.66       | S  | 0.66           | S     | 0.60    | S    | 0.71     | S    | 0.63     | S      | 0.69     |
| Total Fee to Consumer of 1000kl | S     | 1,182.01 | S   | 1,133.75   | 5  | 1,008.07       | S     | 17.789  | S    | 937,92   | S    | 890.12   | S      | 1,051.50 |
| Fixed Fee                       | S     | 856,48   | \$  | 831.47     | Ş  | 694.03         | S     | 590,4 t | \$   | 491.81   | \$   | 398.10   | S      | 679,67   |
| Variable Fee                    | 5     |          | S   |            | S  | 0.04           | 5     | 0.13    | S    | 0.22     | S    | 0.31     | S      | 0.10     |
| Average Total Fee               | 5     | 1.12     | \$  | 1.10       | S  | 0.99           | S     | 0,99    | S    | 0.95     | S    | 0.92     | S      | 1.03     |

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## Methods used to allocate revenue and expenses between residential and non-residential - applied to 2003/2004 results

|     |   | Residential    | Non-Residential | % Residential | % Non-Residentia |
|-----|---|----------------|-----------------|---------------|------------------|
| 1   | Revenue - Split between residential and non residential revenue         | \$3,381,071.01 | \$2,586,470.34  | 56,66%        | 43.34%           |
| 2   | Connections - Split between residential and non-residential connections | 12384          | 2026            | 85.94%        | 14.06%           |
| 3   | Consumption - Split between residential and non-residential consumption | 4217648        | 1694962         | 71.33%        | 28.67%           |
| Act | Actual - Split between residential and non-residential acutal costs     |                |                 |               |                  |

|  | Estimated - Split between residential and non-residential  |        |  |   |  |  | -  |
|--|--|--------|--|---|--|--|--|
| Account  | <b>Description</b>   | Method | Residential %  | Non-Residential                               | Total Residential  | Total Non-<br>Residential  | Grand Total  |
| 1005   | Supply Fee - Residential   | Act    | 100%   | 0%  | - 1,069,491  |  | - 1,069,491  |
|  | Consumption - Residential  | Act    | 100%   | 0%  | - 2,559,327  | -  | - 2,559,327  |
| 1025   | i Rates - Non Residential  | Act    | 0%   | 100%  | •  | - 1,704,629  | - 1,704,529  |
| 1026   | Supply Fee - Non Rateable  | Act    | 0%   | 100%  | ٠  | - 113,950  | - 113,950  |
| 1026   | Rates - Residential Vacant Land  | Act    | 100%   | 0%  | - 153,398  | •  | - 153,398  |
| 1030   | Rates - Interest Income  | Est    | 80%  | 20%   | - 5,374  | - 1,343  | 6,717  |
| 1031   | Consumption - Interest Income  | Est    | 80%  | 20%   | - 14,358   | - 3,589  | - 17,947   |
| 1035   | i Consumption - Non Residential  | Act    | 0%   | 100%  | •  | - 578,540  | - 578,540  |
| 1144   | Fire Services  | Est    | 50%  | 50%   | - 17,977   | - 17,977   | - 35,954   |
| 2268   | Ex-Gratia Water Allowances   | Est    | 80%  | 20%   | 16,738   | 4,185  | 20,923   |
| 2273   | Government Rebate - Pensioners   | Act    | 100%   | 0%  | 111,329  | •  | 111,329  |
| 2275   | Aqwest Rebate - Pensioners   | Act    | 100%   | 0%  | - 444  | •  | 444  |
| 2280   | Consumption Rebate - Pensioner   | Act    | 100%   | 0%  | 134,700  | •  | 134,700  |
| 2285   | Pensioners Tenant Rebate   | Act    | 100%   | 0%  | 5,904  | • 1  | 5,904  |
| 2290   | ) Aqwest Rebate - Seniors  | Act    | 100%   | 0%  | •  | -  | •  |
| 2297   | 7 Senior Tenant Rebate   | Act    | 100%   | 0%  | •  | -  |  |
|  |  |        |  |   | - 3,551,698  | - 2,415,844  | - 5,967,541  |
| 1032   | Interest Received  2 Accounts Receivable - Interest Income   | Est    | 80%  | 20%   | 1,152  | 288  | 1,440  |
|  | Interest Income - Headworks - Fund 4   | Est    | 80%  | 20%   | - 683  | - 171  | - 854  |
|  | Interest Income - Subdivision - Fund 5   | Est    | 100%   | 0%  | 29   |  | - 29   |
|  | AQWEST Main Account Interest Earned  |        | 57%  | 43%   | 40,194   | - 30,748   | 70,941   |
|  | AQWEST Main Account Interest Accrued   |        | 57%  | 43%   | 1,386  | - 1,060  | 2,446  |
|  | Headworks Reserve Interest Earned  |        | 57%  | 43%   | - 137,635  | 105,289  | - 242,923  |
|  | Headworks Reserve Interest Accrued   | ~      | 57%  | 43%   | 79   | 60   | 139  |
|  | DEDP Upgrade Interest Earned   |        | 57%  | 43%   | - 7,601  | - 5,815  | - 13,417   |
|  | EDP Upgrade Interest Carned  |        | 1 57%  | 43%   |  | - 328  | - 757  |
|  | 5 Subdivision Reserve Interest Earned  |        | 57%  | 43%   | - 39,339   | - 30,094   | - 69,433   |
|  | Subdivision Reserve Interest Accrued   |        | 1 57%  | 43%   | 6,498  | 4,971  | 11,469   |
|  | ) Asset Replacement Reserve Interest Earned  |        | 57%  | 43%   | - 226,435  | - 173,219  | - 399,654  |
|  | •  |        | 57%  | 43%   | 2,394  | 1,832  | 4,225  |
|  | Asset Replacement Reserve Interest Accrued   |        | 1 57%  | 43%   |  | - 2,313  | - 5,338  |
|  | 4 Business Development Rsv-Interest Earned<br>5 Business Develop.Res.Int.Accrued   |        | 1 57%  | 43%   |  | - 736  | - 1,699  |
|  | Developers Contributions<br>3 Mains Subdivision Headworks<br>5 Headworks   |        | 1 57%<br>1 57%   |   | - 237,035  | - 63,226<br>- 181,329  | - 145,877<br>- 415,364   |
|  | Loss on sale   |        |  |   | - 319,686  | - 244,555  | - 564,241  |
| 1222   | 2 Surplus On Sale - Buildings At Cost  |        | 3 71%  | 29%   | 22,763   | 9,148  | 31,911   |
|  | 3 Surplus On Sale - Reservoirs At Cost   |        | 3 71%  | 29%   | 74,653   | 30,001   | 104,554  |
|  | 4 Surplus On Sale - Treatment Plants At Cost   |        | 3 71%  | 29%   | 7,468  | 3,000  | 10,467   |
|  | 8 Sumlus On Sale - Plant and Equipment At Cost   |        | 3 71%  | 29%   | 1,470  | 591  | 2,060  |
| 1229   | 9 Surplus on Sale - Motor Vehicles At Cost   |        | 3 71%  | 29%   | - 5,625  | - 2,261  | - 7,886  |
| 1230   | D Surplus On Sale - Meters At Cost   |        | 3 71%  | 29%   | 6,169  | 2,479  | 8,648  |
| 1231   | 1 Surplus on Sale - Tools At Cost  |        | 3 71%  | 29%   | 15,241   | 6,125  | 21,366   |
| 1237   | 2 Surplus On Sale - Office Equipment At Cost   |        | 3 71%  |   |  | 592  | 2,064  |
| 4010   | 0 Sale/Trade Plant & Vehicles  |        | 3 71%  | 29%   |  | -  |  |
|  |  |        |  |   | 123,609  | 49,675   | 173,284  |
| 2033   | Ongoing Works<br>3 Bore Operations & Mtce  |        | 3 71%  | 29%   | 54,083   | 21,734   | 75,817   |
|  | 7 Reservoir Mice   | ,      | 3 71%  |   | 52,417   | 21,065   | 73,481   |
|  | 9 Res.Leak Repair Contingency  |        | 3 71%  | 29%   |  | 4,609  | 16,077   |
|  | 1 Filler Mice  |        | 3 71%  | 1   |  | 77,375   | 269,911  |
|  | 3 Mains Maintenance  |        | 3 71%  |   | 198,617  | 79,819   | 273,435  |
|  | 7 Service Maintenance  |        | 3 71%  | 29%   | 189,228  | 76,046   | 265,274  |
|  |  |        | 2 86%  | 14%   | 144,549  | 23,648   | 168,197  |
|  | 1 New Services   |        |  | 14%   | 7,686  | 1,257  | 8,943  |
| 2051   | 1 New Services<br>2 Meter Maintenance  |        | 2 86%  |   |  | 1,201  |  |
| 2051<br>2052   |  |        | 3 71%  | 29%   | 21,874   | 8,791  | 30,565   |
| 2051<br>2052<br>2054   | 2 Meter Maintenance  |        | 3 71%<br>3 71%   | 29%   | 21,874   |  | 30,565   |
| 2051<br>2052<br>2054<br>2061   | Meter Maintenance     Booster - Pump Operations Mtce   |        | 3 71%<br>3 71%<br>3 71%  | 29%   | 21,874<br>175,025  | 8,791  | 30,565<br>245,363  |
| 2051<br>2052<br>2054<br>2061<br>2065   | 2 Meter Maintenance<br>4 Booster - Pump Operations Mtce<br>1 Filter Operations   |        | 3 71%<br>3 71%<br>3 71%<br>3 71%                                     | 29%<br>29%<br>29%                             | 21,874<br>176,025<br>95,710  | 8,791<br>70,338  | 30,565<br>245,363<br>134,173   |
| 2051<br>2052<br>2054<br>2061<br>2065<br>2066   | 2 Meter Maintenance<br>4 Booster - Pump Operations Mtce<br>1 Filter Operations<br>5 Chemical Treatment   |        | 3 71%<br>3 71%<br>3 71%<br>3 71%<br>3 71%                            | 29%<br>29%<br>29%<br>29%                      | 21,874<br>176,025<br>95,710<br>4,844                                       | 8,791<br>70,338<br>38,463  | 30,565<br>245,363<br>134,173<br>5,791  |
| 2051<br>2052<br>2054<br>2061<br>2065<br>2066<br>2072                                 | 2 Meter Maintenance<br>4 Booster - Pump Operations Mice<br>1 Filter Operations<br>5 Chemical Treatment<br>8 Tools Repairs & Replacements   |        | 3 71%<br>3 71%<br>3 71%<br>3 71%<br>3 71%<br>2 86%                   | 29%<br>29%<br>29%<br>29%<br>29%               | 21,874<br>175,025<br>95,710<br>4,844<br>4,580                              | 8,791<br>70,338<br>38,463<br>1,947   | 30,565<br>245,363<br>134,173<br>5,791<br>6,421                                       |
| 2051<br>2052<br>2054<br>2061<br>2065<br>2066<br>2072<br>2076                         | 2 Meter Maintenance<br>4 Booster - Pump Operations Mtce<br>1 Filter Operations<br>5 Chemical Treatment<br>B Tools Repairs & Replacements<br>2 Operations Centre  |        | 3 71%<br>3 71%<br>3 71%<br>3 71%<br>3 71%<br>2 86%<br>3 71%          | 29%<br>29%<br>29%<br>29%<br>29%<br>14%        | 21,874<br>176,026<br>95,710<br>4,844<br>4,580<br>49,483                    | 8,791<br>70,338<br>38,463<br>1,947<br>1,841                                      | 30,665<br>245,363<br>134,173<br>6,791<br>6,421<br>57,578                             |
| 2051<br>2052<br>2054<br>2061<br>2065<br>2066<br>2072<br>2076<br>2300                 | 2 Meter Maintenance 4 Booster - Pump Operations Mtce 1 Filter Operations 5 Chemical Treatment B Tools Repairs & Replacements 2 Operations Centre 6 Meter Reading 0 Salaries & Wages-Asset Management             |        | 3 71%<br>3 71%<br>3 71%<br>3 71%<br>3 71%<br>2 86%                   | 29%<br>29%<br>29%<br>29%<br>29%<br>14%<br>29% | 21,874<br>176,026<br>95,710<br>4,844<br>4,580<br>49,483<br>41,380          | 8,791<br>70,338<br>38,463<br>1,947<br>1,841<br>8,095                             | 30,665<br>245,363<br>134,173<br>5,791<br>5,421<br>57,578<br>58,009                   |
| 2051<br>2052<br>2054<br>2061<br>2065<br>2066<br>2072<br>2076<br>2300<br>2302         | Meter Maintenance     Hooster - Pump Operations Mtce     Filter Operations     Chemical Treatment     Tools Repairs & Replacements     Operations Centre     Meter Reading     Salaries & Wages-Asset Management |        | 3 71%<br>3 71%<br>3 71%<br>3 71%<br>3 71%<br>2 86%<br>3 71%          | 29%<br>29%<br>29%<br>29%<br>29%<br>14%<br>29% | 21,874<br>175,026<br>95,710<br>4,844<br>4,580<br>49,483<br>41,380<br>5,131 | 8,791<br>70,338<br>38,463<br>1,947<br>1,841<br>8,095                             | 30,665<br>245,363<br>134,173<br>6,791<br>5,421<br>57,578<br>58,009<br>7,193          |
| 2051<br>2052<br>2054<br>2061<br>2065<br>2066<br>2072<br>2076<br>2300<br>2302<br>2304 | 2 Meter Maintenance 4 Booster - Pump Operations Mtce 1 Filter Operations 5 Chemical Treatment B Tools Repairs & Replacements 2 Operations Centre 6 Meter Reading 0 Salaries & Wages-Asset Management             |        | 3 71%<br>3 71%<br>3 71%<br>3 71%<br>3 71%<br>2 86%<br>3 71%<br>3 71% | 29%<br>29%<br>29%<br>29%<br>29%<br>29%<br>29% | 21,874<br>175,026<br>95,710<br>4,844<br>4,580<br>49,483<br>41,380<br>5,131 | 8,791<br>70,338<br>38,463<br>1,947<br>1,841<br>8,095<br>16,629<br>2,062<br>1,577 | 30,865<br>245,363<br>134,173<br>5,791<br>6,421<br>57,578<br>58,009<br>7,193<br>5,500 |

### Methods used to allocate revenue and expenses between residential and non-residential - applied to 2003/2004 results

| 1   | Revenue - Split between residential and non residential revenue Connections - Split between residential and non-residential connections Consumption - Split between residential and non-residential consumption Actual - Split between residential and non-residential acutal costs | Residentlai    | Non-Realdential | % Residential | % Non-Residential |
|-----|---|----------------|-----------------|---------------|-------------------|
| 2   |   | \$3,381,071.01 | \$2,586,470.34  | 56.66%        | . 43.34%          |
| 3   |   | 12384          | 2026            | 85.94%        | 14.06%            |
| Act |   | 4217648        | 1694962         | 71.33%        | 28.67%            |
| Est | Estimated - Split between residential and non-residential estimated costs   |                |                 |               |                   |

|         |   |          |                |                 | · · · · · · · · · · · · · · · · · · · |                 |            |
|---------|---|----------|----------------|-----------------|---------------------------------------|-----------------|------------|
| Account | Description   | 10-05-4  | Manida - Nat W | Non-Residential | Tatal Basida atal                     | Total Non-      |            |
|         | Description Miscellaneous-Asset Management                                      | Method   | Residential %  | % 200           | Total Residential                     | Residential     | Grand Tota |
|         | Annual Leave  | 3        | 71%<br>71%     | 29%<br>29%      | 379                                   | 152             |            |
|         | Superannuation  | 3        |                | 29%             | 25,848<br>7,452                       | 10,388          | 36,        |
|         | Occupational Super-PWO  | 3        | 71%            | 29%<br>29%      | 7,452<br>28,352                       | 2,995           | 10,        |
|         | Long Service Leave  | 3        | 71%            | 29%             | 10,919                                | 11,394          | 39,        |
|         | Public Holidays   | 3        | 71%            | 29%             | 16,142                                | 4,388<br>6,487  | 15         |
|         | Rostered Days Off   | 3        | 71%            | 29%             | - 729                                 | - 293           | 22         |
|         | Sick Leave  | 3        | 71%            | 29%<br>29%      | 6.049                                 | 2,431           | - 1,<br>8  |
|         | Staff Safety Training   | 3        | 71%            | 29%             | 5,189                                 | 2,085           | 7.         |
|         | Staff Training  | 3.       | 71%            | 29%             | 6,410                                 | 2,576           | 8          |
|         | Safety & Loss Control   | 3        | 71%            | 29%             | 25,399                                | 10,207          | 35         |
|         | Plant & Vehicle Operation   | 3        | 71%            | 29%             | 35,319                                | 14,194          | 49         |
|         | Less Allocated to Works (Total Overheads Expensed)                              | 3        | 71%            | 29%             | - 216,058                             | - 86,828        |            |
|         | Gross Salaries & Wages  | 3        | 71%            | 29%             | 210,000                               | . 00,020        | - 302      |
|         | Less Allocated to Works   | 3        | 71%            | 29%             | •                                     | - 1             |            |
|         | Private Works   | Est      | 20%            | 80%             | 1,630                                 | 6,520           |            |
|         | -   |          | 2570           | 05,2            | 1,211,895                             | 444,829         | 1,656      |
|         |   |          | l              |                 | . •                                   |                 |            |
|         | Electricity   |          |                |                 |                                       |                 |            |
| 2010    | Electricity   | 3        | 71%            | 29%             | 213,612                               | 85,845          | 299,       |
|         |   |          |                |                 | 213,612                               | 85,845          | 299,       |
|         | Other Service Expenses System Quality Improvement                               | 3        | 71%            | 29%             | . 4414                                |                 |            |
|         | Forward Planning Best Practice  | 3        |                |                 | 1,242                                 | 499             | 1,         |
|         | Engineering Analysis  | 3        | 71%            | 29%             | 25,136                                | 10,101          | 35,        |
|         | SCADA Non-Capital   | 3        | 71%            | 29%             | 1,908                                 | 767             | 2          |
| 2054    | SCADA Null-Capital  |          | 71%            | 29%             | 563<br>28,849                         | 226<br>11,594   | 40         |
|         | Contai Panissa  |          |                |                 |                                       | ,               |            |
|         | Cost of Services Bad Debts  |          |                |                 |                                       |                 |            |
| 186     | Write Off Account   | 3        | 71%            | 29%             | 438                                   | 176             |            |
|         |   |          |                |                 | 438                                   | 176             |            |
|         | Computer Maintenance  |          |                |                 |                                       |                 |            |
| 2160    | Computer Consumables  | 3        | 71%            | 29%             | 4,854                                 | 1,951           | 5,         |
| 2165    | Computer Licences & Mtce  | 3        | 71%            | 29%             | 43,687                                | 17,557          | 61,        |
| 2167    | EDP Maintenance Contract  | 3        | 71%            | 29%             | 28,289                                | 11,369          | 19,        |
|         |   |          |                |                 | 76,831                                | 30,876          | 107        |
|         | Depreciation  |          |                |                 |                                       |                 |            |
|         | Depreciation - Buildings At Cost  | 3        | 71%            | 29%             | 54,628                                | 21,953          | 75,        |
| 2453    | Depreciation - Reservoirs at Valuation  | 3        | 71%            | 29%             | 191,932                               | 77,132          | 259        |
| 2454    | Depreciation - Treatment Plants At Cost   | 3        | 71%            | 29%             | 224,275                               | 90,130          | 314,       |
| 2455    | Depreciation - Mains and Replacement At Cost                                    | 3        | 71%            | 29%             | 26,679                                | 10,722          | 37,        |
| 2456    | Depreciation - Mains and Replacement At Valuation                               | 3        | 71%            | 29%             | 197,774                               | 79,480          | 277        |
|         | Depreciation - Bores & Pumps at Valuation                                       | 3        | 71%            | 29%             | 83,347                                | 33,495          | 116,       |
|         | Depreciation - Plant and Equipment At Cost                                      | 3        | 71%            | 29%             | 5,505                                 | 2,212           | 7,         |
|         | Depreciation - Motor Vehicles At Cost   | 2        | 86%            | 14%             | 47,518                                | 7,774           | 55,        |
|         | Depreciation - Meters at Valuation  | 2        | 86%            | 14%             | 31,944                                | 5,226           | 37,        |
|         | Depreciation - Tools At Cost  | 3        | 71%            | . 29%           | 5,525                                 | 2,220           | 7,         |
|         | Depreciation - Office Equipment At Cost   | 3        | 71%            | 29%             | 36,622                                | 14.717          | 51,        |
|         |   |          |                |                 | 905,748                               | 345,062         | 1,250,     |
|         | Insurances  | <u> </u> |                |                 |                                       |                 |            |
| 2118    | Workers Compensation-Admin  | 3        | 71%            | 29%             | 9,764                                 | 3,924           | 13,        |
|         | Insurances-Administration   | 3        | 71%            | 29%             | 10,387                                | 4,174           | 14,        |
|         | Insurances-Property/Assets  | 3        | 71%            | 29%             | 42,130                                | 16,931          | 59,        |
|         | Insurance P/Liab Eng.Works  | 3        | 71%            | 29%             | 24,696                                | 9,925           | 34,        |
|         | Insurance-Workers Comp.   | 3        | 71%            | 29%             | 11,604                                | 4,663           | 16,        |
|         |   |          |                | 2570            | 98,580                                | 39,617          | 138,       |
|         | Legal Expenses  |          |                |                 | -                                     |                 |            |
|         | Legal Expenses  | 2        | 86%            | 14%             | 42,917                                | 7,021           | 49,        |
|         |   |          |                |                 | 42,917                                | 7,021           | 49,        |
|         | Rent  |          |                |                 |                                       | ]               |            |
|         | Leases W/Brd Facility Sites Office Rent   | 3        | 71%<br>71%     | 29%<br>29%      | 25,946<br>21,648                      | 10,427          | 36,        |
| *166    | Commo (Coditi   |          | 1178           | 2976            | 47,595                                | 8,700<br>19,127 | 30,<br>66, |
|         | Salaries & Wages  |          |                |                 | ,                                     | ,               |            |
|         | Salaries & Wages Salaries & Wages-Administration                                | 2        | 86%            | 14%             | 467,185                               | 76,431          | 543,       |
|         |   |          | 22.01          |                 |                                       |                 |            |
| 2101    | Salaries & Wages Accrued - Administration<br>Salaries & Wages-Engineering Admin | 2        | 86%            | 14%             | 19,495                                | 3,189           | 22,        |

## Methods used to allocate revenue and expenses between residential and non-residential - applied to 2003/2004 results

| 1   | Revenue - Split between residential and non residential revenue           | Residential<br>\$3,381,071,01 | Non-Residential<br>\$2,586,470,34 | % Residential<br>56.66% | % Non-Residential<br>43.34% |
|-----|---|-------------------------------|-----------------------------------|-------------------------|-----------------------------|
| ż   | Connections - Split between residential and non-residential connections   | 12384                         | 2026                              | 85.94%                  | 14.06%                      |
| 3   | Consumption - Split between residential and non-residential consumption   | 4217648                       | 1694962                           | 71.33%                  | 28.67%                      |
| Act | Actual - Split between residential and non-residential acutal costs       |                               |                                   |                         |                             |
| Est | Estimated - Split between residential and non-residential estimated costs |                               |                                   |                         | ,                           |

| \ccount | Description                                   | Method | Residential % | Non-Residential | Total Residential | Total Non-<br>Residential | Grand Total |
|---------|---|--------|---------------|-----------------|-------------------|---------------------------|-------------|
| 2311    | Salaries & Wages Accrued - Engineering Admin  | 3      | 71%           | 29%             | - 10,697          | - 4,299                   | 14,9        |
|         |   |        |               |                 | 634,996           | 139,225                   | 774.2       |
|         | _   |        |               |                 |                   |                           |             |
|         | Superannuation                                | _1     |               |                 |                   | i                         |             |
|         | Superannuation-Administration                 | 2      | 86%           | 14%             | 44,150            | 7,223                     | 51,3        |
|         | Occupational Super-Administration             | 2      | 86%           | 14%             | 46,371            | 7,586                     | 53,9        |
|         | Superannuation-Engineering Admin              | 3      | 71%           | 29%             | 458               | 184                       | 6           |
| 2314    | Occupational Super-Engineering Admin          | 3      | 71%           | 29%             | 11,268            | 4,528                     | 15,7        |
|         |   |        |               |                 | 102,248           | 19,522                    | 121,7       |
|         | All Other Expenses                            |        |               |                 |                   | ļ                         |             |
| 150     | Rounding Account                              | 2      | 86%           | 14%             | 125               | 20                        | •           |
|         | C.E.O. Employee Awards                        | 2      | 86%           | 14%             | 1,227             | 201                       | 1,4         |
|         | Corporate Uniforms                            | 3      | 71%           | 29%             | 12,769            | 5,131                     | 17,5        |
|         | FBT-Vehicles                                  | 3      | 71%           | 29%             | 9,938             | 3,191                     | 13,9        |
|         | Admin.Staff Training                          | 2      | 86%           | - 14%           | 3,150             | 515                       | 3,1         |
|         | Employee Assistance Program                   | 3      | 71%           | 29%             | 321               | 129                       | ٠,٠         |
|         | Admin Office Utilities                        | 3      | 71%           | 29%             | 31,208            | 12,542                    | 43,         |
|         | Telephone                                     | 3      | 71%           | 29%             | 27,467            | 11,038                    | 38          |
|         | Travelling & Accom.Expenses                   | 3      | 71%           | 29%             | 2,419             | 972                       | 3a,         |
|         | Advertising                                   | 2      | 86%           | 14%             | 12,905            | 2,111                     | 15.         |
|         | Customer Survey                               | 2      | 86%           | 14%             | 6,131             | 1,003                     | 7.          |
|         | Public Relations                              | 2      | 86%           | 14%             | 30,332            | 4,962                     | 35.         |
|         | Water Conservation Publicity                  | 2      | 86%           | 14%             | 11,600            | 1,898                     | 30,<br>13,  |
|         | Audit Fees                                    | 3      | 71%           | 29%             | 13,910            | 5,590                     | 13,         |
|         | Bad Debts                                     | 3      | 71%           | 29%             |                   |                           | 13,         |
|         | Economic Regulation Authority                 | 3      | 71%           | 29%             | -                 | ,                         |             |
|         | Bank Charges & FID (Main Aqwest Bank Account) | 2      | 86%           | 14%             | B,534             | 1,396                     | 9,          |
|         | EFTPOS Facilities (Admin).                    | 2      | 86%           | 14%             | 6,490             |                           | 3,<br>7,    |
|         | F.A.A.A. Planning                             | 3      | 71%           | 29%             | 799               | 1,062                     |             |
|         | Industrial Services/Memb.Fees                 | 3      | 71%           | 29%             | 2,739             | 321                       | 1,          |
|         | Office Expenses                               | 2      | 86%           | 14%             | 6,507             | 1,101<br>1,065            | 3,<br>7.    |
|         | Office Equipment Mice                         | 2      | 86%           | 14%             | 2,719             | 445                       |             |
|         | Postage                                       | 2      | 86%           | 14%             | 18,789            |                           | 3,          |
|         | Printing & Stationery                         | 2      | 86%           | 14%             | 26,715            | 3,074                     | 21,         |
|         | Records Archives & Storage                    | 2      | 86%           | 14%             | 4,894             | 4,371<br>801              | 31,         |
|         | Relocation Expenses                           | 2      | 86%           | 14%             | 25.897            | 4,400                     | 5,<br>31.   |
|         | Tax Equivalent Planning-Admin                 | 3      | 71%           | 29%             | 1,944             | 781                       | 31,<br>2,   |
|         | Valuation Expenses                            | 3      | 71%           | 29%             | 5,691             | 2,287                     |             |
|         | Board Member's Allowances                     | 2      | 7 179<br>86%  | 14%             | 23,927            | 2,287<br>3,914            | 7,<br>27,   |
|         | Conference Expenses                           | 2      | 86%           | 14%             | 183               | 3,914                     |             |
|         | Meeting Expenses                              | 2      | 86%           | 14%             | 5,408             | 885                       | . 6,        |
|         | Trayel & Accommodation-Board Members          | 2      | 86%           | 14%             | 9,408             | 600                       | ь,          |
|         | Miscellaneous                                 | 3      | 71%           | 29%             | 20,231            | B,130                     | 28.         |
|         | Staff Training-Engineering Admin              | 3      | 71%           | 29%<br>29%      | 20,231            | 8,130<br>963              | . 28,<br>3, |
|         | Payroll Tax                                   | 3      | 71%           | 29%<br>29%      | 38,104            | 15,313                    | 3,<br>53,   |
| 23/0    | Faylul (ax                                    |        | 7 (78         | 2376            | 356,468           | 100,445                   | 466,        |
|         |   |        |               |                 | 555,466           | ,55,740                   | 400,        |
|         | Total Revenue                                 |        | **            |                 |                   |                           |             |
|         | Total Expenses                                |        |               |                 | 3,853,785         | 1,293,013                 | 5,146,      |
|         | Total Expenses - excluding depri              |        |               |                 | 2,948,037         | 947,951                   | 3,895,      |
|         | Operating Profit                              |        |               |                 | - 545,440         | 1,815,854                 | 2,462,      |

