

# Water Resources Planning Guideline

Water Resource Planning Guidelines - Supply - Demand Worksheet **version 1\_0 (file name: S-D Worksheet\_v 1\_0.xls)**

## Instructions:

All information for completing tables is contained within the Water Resources Planning Guidance document **reference (Version 1.1) date (April 2007)**  
The Guideline is also available on the Environment Agency website at <http://www.environment-agency.gov.uk/subjects/waterres/981441/408371/>  
All queries on the content of this workbook should be directed to [water-companies-plan@environment-agency.gov.uk](mailto:water-companies-plan@environment-agency.gov.uk)

**All calculated cells should use the calculations given in the corresponding derivation column**

Yellow shaded cells are calculation cells and protected. Do not input data to these cells

Blue shaded cells represent the base-year data (**Scenario Year 2006-07**)

shaded cells do not require any input

## Resource Zone and sign off information:

Please enter the information below to identify this workbook. This will be copied through to all work sheets.

|                                 |                               |                |                |                                |
|---------------------------------|-------------------------------|----------------|----------------|--------------------------------|
| <b>Company:</b>                 | <u>Northumbrian Water</u>     |                |                |                                |
| <b>Resource Zone Name</b>       | <u>Berwick &amp; Fowberry</u> |                |                |                                |
| <b>Resource Zone Number:</b>    | <u>2 of 3</u>                 |                |                |                                |
| <b>Planning Scenario Name:</b>  | <u>Dry</u>                    |                |                |                                |
| <b>Chosen Level of Service:</b> | <u>Company Preferred</u>      |                |                |                                |
| <b>Responsible Officer:</b>     | <u>M. Lunn</u>                | <b>Signed:</b> | <u>M. Lunn</u> | <b>Dated:</b> <u>18-Apr-08</u> |
| <b>Version:</b>                 | <b>Draft</b>                  |                |                |                                |

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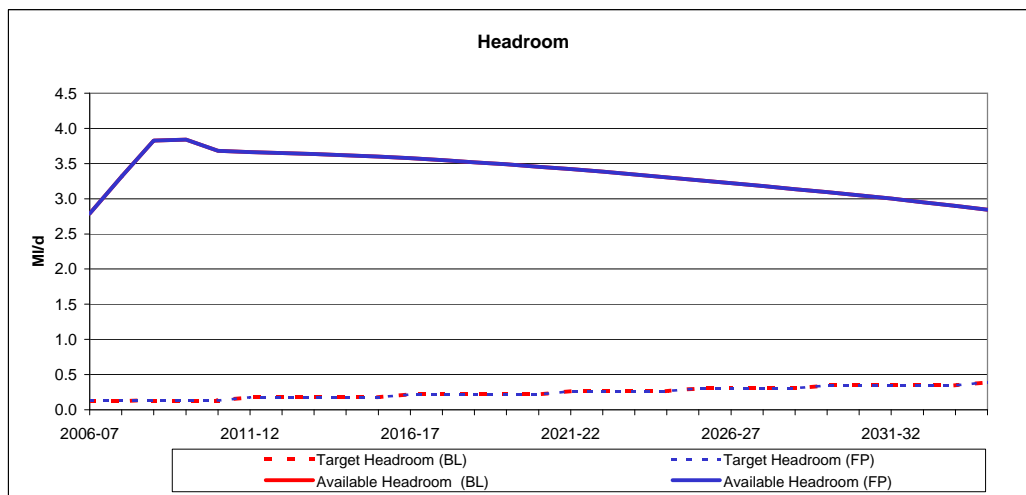
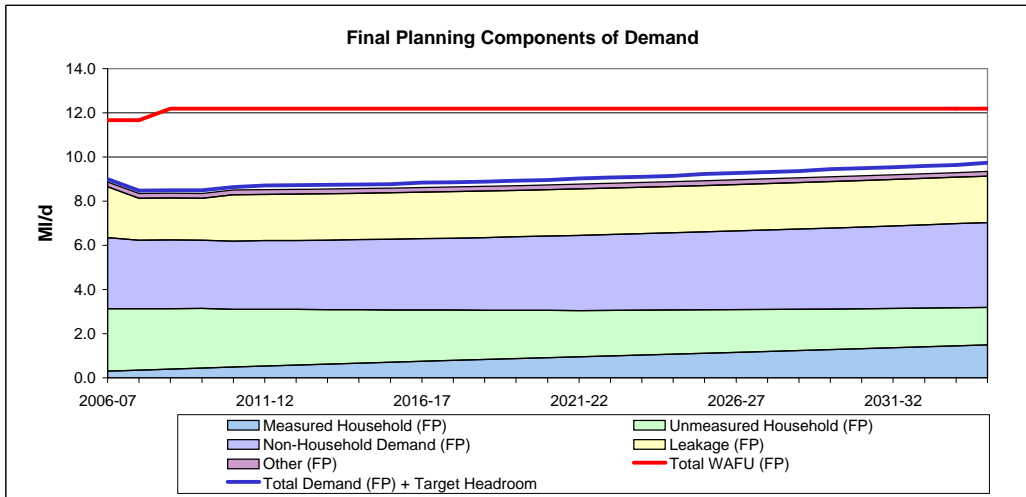
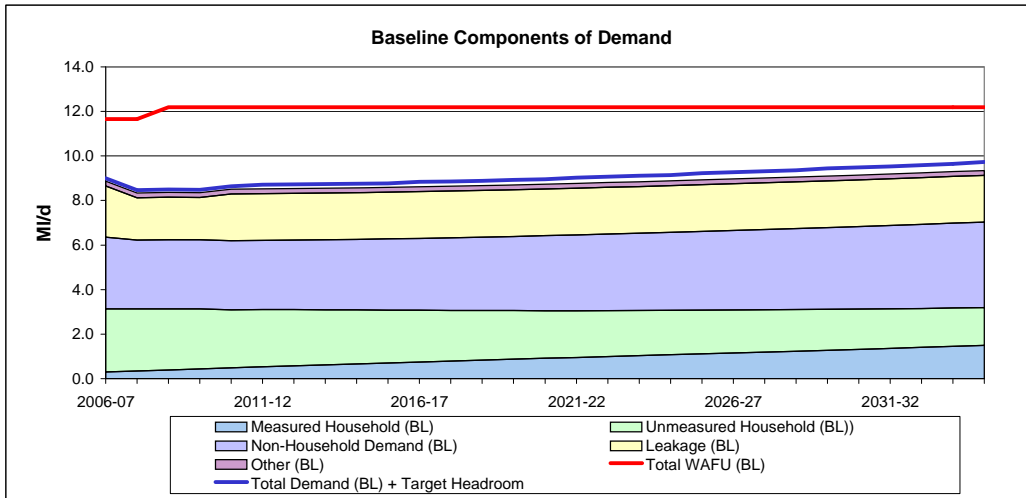
### WRP Tables

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| Summary  | Summary of WRP Tables Inputs                                  |
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| WRP1a-BL | Baseline WRP1 Supporting transfer and DO reductions data      |
| WRP2     | Feasible list of water management options                     |
| WRP3     | Preferred list of water management options                    |
| WRP4-FP  | Final Planning Supply Demand Components                       |
| WRP4a-FP | Final Planning WRP4 Supporting transfer and DO reduction data |
| WRP5     | Resource zone deployable output reconciliation                |
| WRP6     | Breakdown of measures households (Dry Year Baseline)          |
| WRP7     | Household micro-component consumption (Dry Year Baseline)     |
| WRP8     | Non-household sector consumption (Dry Year Baseline)          |
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**Summary of WRP Tables Inputs**



|                          |                               |
|--------------------------|-------------------------------|
| Company:                 | <u>Northumbrian Water</u>     |
| Resource Zone Name:      | <u>Berwick &amp; Fowberry</u> |
| Resource Zone Number:    | <u>2 of 3</u>                 |
| Planning Scenario Name:  | <u>Dry</u>                    |
| Chosen Level of Service: | <u>Company Preferred</u>      |

**Table WRP1-BL: Baseline Supply Demand Components**

| ROW Ref.   | DERIVATION   | DESCRIPTION  | UNITS | Scenario Year 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 | 2025-26 | 2026-27 | 2027-28 | 2028-29 | 2029-30 | 2030-31 | 2031-32 | 2032-33 | 2033-34 | 2034-35 |       |
|--|--|--|-------|-----------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------|
| <b>BASIC RESOURCES BASELINE</b>                    |  |  |       |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |       |
| 1 <sub>BL</sub>                                    | Input  | Deployable Output (Specify individual Source Yields on Table WRP4) | MI/d  | 11.76                 | 11.76   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29 |
| 2 <sub>BL</sub>                                    | WRP1a-BL 2a <sub>BL</sub>  | Reductions in Deployable Output                                    | MI/d  | 0.00                  | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00  |
| 3 <sub>BL</sub>                                    | Input  | Outage Allowance   | MI/d  | 0.10                  | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10  |
| 4 <sub>BL</sub>                                    | 9 <sub>BL</sub> +11 <sub>BL</sub>  | Process Losses   | MI/d  | 0.00                  | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00  |
| 5 <sub>BL</sub>                                    | 1 <sub>BL</sub> -(2 <sub>BL</sub> +3 <sub>BL</sub> +4 <sub>BL</sub> )                                      | Water Available For Use (own sources)                              | MI/d  | 11.66                 | 11.66   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19 |
| <b>RAW WATER BASELINE</b>                          |  |  |       |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |       |
| 6 <sub>BL</sub>                                    | Input  | Raw Water Abstracted   | MI/d  | 9.20                  | 8.64    | 8.67    | 8.67    | 8.84    | 8.87    | 8.89    | 8.91    | 8.94    | 8.97    | 9.00    | 9.03    | 9.07    | 9.11    | 9.15    | 9.19    | 9.24    | 9.29    | 9.34    | 9.39    | 9.44    | 9.49    | 9.54    | 9.59    | 9.65    | 9.70    | 9.76    | 9.83    | 9.89    |       |
| 7 <sub>BL</sub>                                    | WRP1a-BL 7a <sub>BL</sub>  | Raw Water Exported (existing)                                      | MI/d  | 0.00                  | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |       |
| 8 <sub>BL</sub>                                    | WRP1a-BL 8a <sub>BL</sub>  | Raw Water Imported (existing)                                      | MI/d  | 0.00                  | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00  |
| 9 <sub>BL</sub>                                    | Input  | Raw Water Losses and Operational Use                               | MI/d  | 0.20                  | 0.20    | 0.21    | 0.22    | 0.22    | 0.23    | 0.24    | 0.25    | 0.25    | 0.26    | 0.27    | 0.27    | 0.28    | 0.29    | 0.29    | 0.30    | 0.31    | 0.32    | 0.32    | 0.33    | 0.34    | 0.34    | 0.35    | 0.36    | 0.36    | 0.37    | 0.38    | 0.39    | 0.39    | 0.39  |
| 10 <sub>BL</sub>                                   | WRP1a-BL 10a <sub>BL</sub>   | Non Potable Supplies (existing)                                    | MI/d  | 0.00                  | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |       |
| <b>POTABLE WATER TO POINT OF DELIVERY BASELINE</b> |  |  |       |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |       |
| 11 <sub>BL</sub>                                   | Input  | Treatment Works Losses and Operational Use                         | MI/d  | 0.00                  | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |       |
| 12 <sub>BL</sub>                                   | WRP1a-BL 12a <sub>BL</sub>   | Potable Water Imported   | MI/d  | 0.00                  | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |       |
| 13 <sub>BL</sub>                                   | WRP1a-BL 13a <sub>BL</sub>   | Potable Water Exported   | MI/d  | 0.00                  | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |       |
| 14 <sub>BL</sub>                                   | Input  | Distribution Input   | MI/d  | 8.87                  | 8.34    | 8.36    | 8.35    | 8.51    | 8.53    | 8.54    | 8.56    | 8.57    | 8.59    | 8.62    | 8.64    | 8.67    | 8.70    | 8.74    | 8.77    | 8.81    | 8.84    | 8.89    | 8.93    | 8.97    | 9.01    | 9.05    | 9.10    | 9.14    | 9.19    | 9.24    | 9.29    | 9.35    |       |
| 15 <sub>BL</sub>                                   | Input  | Distribution Losses  | MI/d  | 1.45                  | 1.05    | 1.05    | 1.05    | 1.25    | 1.25    | 1.25    | 1.25    | 1.25    | 1.25    | 1.25    | 1.25    | 1.25    | 1.25    | 1.26    | 1.26    | 1.26    | 1.26    | 1.26    | 1.26    | 1.26    | 1.26    | 1.27    | 1.27    | 1.27    | 1.27    | 1.27    | 1.27    | 1.27    | 1.28  |
| 16 <sub>BL</sub>                                   | Input  | Distribution System Operational Use                                | MI/d  | 0.13                  | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    |       |
| 17 <sub>BL</sub>                                   | 14 <sub>BL</sub> -15 <sub>BL</sub> -16 <sub>BL</sub>   | Water Delivered  | MI/d  | 7.29                  | 7.17    | 7.19    | 7.18    | 7.13    | 7.15    | 7.16    | 7.18    | 7.19    | 7.21    | 7.24    | 7.26    | 7.29    | 7.32    | 7.35    | 7.38    | 7.42    | 7.46    | 7.50    | 7.54    | 7.58    | 7.62    | 7.66    | 7.70    | 7.75    | 7.79    | 7.84    | 7.89    | 7.94    |       |
| <b>POTABLE WATER CUSTOMER USE BASELINE</b>         |  |  |       |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |       |
| 18 <sub>BL</sub>                                   | Input  | Unmeasured Household - Population                                  | 000's | 18.194                | 17.950  | 17.577  | 17.230  | 16.464  | 16.154  | 15.851  | 15.546  | 15.244  | 14.952  | 14.659  | 14.371  | 14.091  | 13.820  | 13.542  | 13.278  | 13.057  | 12.849  | 12.636  | 12.443  | 12.251  | 12.064  | 11.875  | 11.638  | 11.409  | 11.183  | 10.959  | 10.738  | 10.522  |       |
| 19 <sub>BL</sub>                                   | Input  | Unmeasured Household - Properties                                  | 000's | 7.176                 | 7.127   | 7.009   | 6.904   | 6.807   | 6.714   | 6.621   | 6.528   | 6.435   | 6.342   | 6.249   | 6.156   | 6.063   | 5.970   | 5.877   | 5.784   | 5.691   | 5.598   | 5.505   | 5.412   | 5.319   | 5.226   | 5.133   | 5.040   | 4.947   | 4.854   | 4.761   | 4.668   | 4.575   |       |
| 20 <sub>BL</sub>                                   | 18 <sub>BL</sub> /19 <sub>BL</sub>   | Unmeasured Household - Occupancy Rate                              | h/pr  | 2.54                  | 2.52    | 2.51    | 2.50    | 2.42    | 2.41    | 2.39    | 2.38    | 2.37    | 2.36    | 2.35    | 2.33    | 2.32    | 2.32    | 2.30    | 2.30    | 2.29    | 2.30    | 2.30    | 2.30    | 2.30    | 2.31    | 2.31    | 2.31    | 2.31    | 2.30    | 2.30    | 2.30    | 2.30    |       |
| 21 <sub>BL</sub>                                   | Input  | Measured Household - Population                                    | 000's | 2.171                 | 2.393   | 2.744   | 3.069   | 3.382   | 3.685   | 3.984   | 4.287   | 4.586   | 4.879   | 5.176   | 5.467   | 5.750   | 6.024   | 6.307   | 6.601   | 6.896   | 7.181   | 7.470   | 7.737   | 7.997   | 8.242   | 8.489   | 8.784   | 9.079   | 9.371   | 9.661   | 9.947   | 10.229  |       |
| 22 <sub>BL</sub>                                   | Input  | Measured Household - Properties                                    | 000's | 1.438                 | 1.538   | 1.726   | 1.900   | 2.069   | 2.231   | 2.393   | 2.556   | 2.718   | 2.878   | 3.039   | 3.198   | 3.353   | 3.504   | 3.655   | 3.808   | 3.961   | 4.108   | 4.258   | 4.395   | 4.528   | 4.653   | 4.778   | 4.929   | 5.079   | 5.227   | 5.374   | 5.519   | 5.661   |       |
| 23 <sub>BL</sub>                                   | 21 <sub>BL</sub> /22 <sub>BL</sub>   | Measured Household - Occupancy Rate                                | h/pr  | 1.51                  | 1.56    | 1.59    | 1.61    | 1.64    | 1.65    | 1.67    | 1.68    | 1.69    | 1.70    | 1.71    | 1.71    | 1.72    | 1.73    | 1.73    | 1.74    | 1.75    | 1.75    | 1.76    | 1.77    | 1.77    | 1.78    | 1.78    | 1.79    | 1.79    | 1.80    | 1.80    | 1.81    |         |       |
| 24 <sub>BL</sub>                                   | Input  | Unmeasured Non Household - Population                              | 000's | 0.106                 | 0.107   | 0.108   | 0.109   | 0.110   | 0.111   | 0.112   | 0.112   | 0.113   | 0.114   | 0.115   | 0.116   | 0.117   | 0.118   | 0.119   | 0.120   | 0.123   | 0.125   | 0.127   | 0.129   | 0.131   | 0.134   | 0.136   | 0.139   | 0.141   | 0.144   | 0.146   | 0.149   | 0.152   |       |
| 25 <sub>BL</sub>                                   | Input  | Unmeasured Non Household - Properties                              | 000's | 0.154                 | 0.135   | 0.126   | 0.117   | 0.112   | 0.111   | 0.109   | 0.108   | 0.106   | 0.105   | 0.103   | 0.102   | 0.100   | 0.099   | 0.097   | 0.096   | 0.095   | 0.093   | 0.092   | 0.090   | 0.089   | 0.087   | 0.086   | 0.084   | 0.083   | 0.082   | 0.080   | 0.079   | 0.077   |       |
| 26 <sub>BL</sub>                                   | Input  | Measured Non Household - Population                                | 000's | 0.559                 | 0.563   | 0.567   | 0.573   | 0.578   | 0.582   | 0.586   | 0.588   | 0.592   | 0.597   | 0.602   | 0.608   | 0.615   | 0.620   | 0.625   | 0.632   | 0.644   | 0.655   | 0.667   | 0.677   | 0.688   | 0.701   | 0.715   | 0.728   | 0.742   | 0.755   | 0.769   | 0.782   | 0.796   |       |
| 27 <sub>BL</sub>                                   | Input  | Measured Non Household - Properties                                | 000's | 0.746                 | 0.788   | 0.803   | 0.818   | 0.831   | 0.839   | 0.845   | 0.851   | 0.858   | 0.865   | 0.874   | 0.882   | 0.892   | 0.902   | 0.910   | 0.920   | 0.934   | 0.951   | 0.968   | 0.984   | 1.000   | 1.018   | 1.037   | 1.057   | 1.076   | 1.096   | 1.115   | 1.135   | 1.154   |       |
| 28 <sub>BL</sub>                                   | 18 <sub>BL</sub> +21 <sub>BL</sub> +24 <sub>BL</sub> +26 <sub>BL</sub>                                     | Total Population   | 000's | 21.030                | 21.014  | 20.996  | 20.980  | 20.534  | 20.531  | 20.533  | 20.533  | 20.535  | 20.543  | 20.552  | 20.562  | 20.573  | 20.583  | 20.594  | 20.631  | 20.719  | 20.810  | 20.900  | 20.986  | 21.066  | 21.141  | 21.215  | 21.290  | 21.371  | 21.453  | 21.535  | 21.617  | 21.699  |       |
| 29 <sub>BL</sub>                                   | Input  | Void Households  | 000's | 0.445                 | 0.361   | 0.364   | 0.367   | 0.370   | 0.373   | 0.376   | 0.378   | 0.381   | 0.384   | 0.387   | 0.390   | 0.392   | 0.395   | 0.397   | 0.400   | 0.402   | 0.404   | 0.407   | 0.409   | 0.410   | 0.412   | 0.413   | 0.415   | 0.418   | 0.420   | 0.422   | 0.424   | 0.427   |       |
| 30 <sub>BL</sub>                                   | Input  | Void Non Households  | 000's | 0.157                 | 0.186   | 0.186   | 0.186   | 0.186   | 0.186   | 0.186   | 0.186   | 0.186   | 0.186   | 0.186   | 0.186   | 0.186   | 0.186   | 0.186   | 0.186   | 0.186   | 0.186   | 0.186   | 0.186   | 0.186   | 0.186   | 0.186   | 0.186   | 0.186   | 0.186   | 0.186   | 0.186   | 0.186   |       |
| 31 <sub>BL</sub>                                   | 19 <sub>BL</sub> +22 <sub>BL</sub> +25 <sub>BL</sub> +27 <sub>BL</sub> +29 <sub>BL</sub> +30 <sub>BL</sub> | Total Properties   | 000's | 10.116                | 10.135  | 10.213  | 10.292  | 10.373  | 10.452  | 10.529  | 10.607  | 10.683  | 10.759  | 10.837  | 10.913  | 10.987  | 11.055  | 11.123  | 11.193  | 11.268  | 11.340  | 11.415  | 11.475  | 11.531  | 11.580  | 11.632  | 11.711  | 11.788  | 11.863  | 11.938  | 12.010  | 12.080  |       |
| <b>POTABLE WATER DELIVERED BASELINE</b>            |  |  |       |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |       |
| 32 <sub>BL</sub>                                   | Input  | Water Taken Unbilled   | MI/d  | 0.12                  | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    |       |
| 33 <sub>BL</sub>                                   | Input  | Water Delivered Unmeasured Household                               | MI/d  | 3.52                  | 3.49    | 3.42    | 3.37    |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |       |

Table WRP1a-BL: Baseline WRP1 Supporting transfer and DO reductions data

| ROW Ref.          | DERIVATION           | DESCRIPTION<br><i>[Insert/delete non-numbered lines to suit]</i>       | UNITS | Scenario | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 | 2025-26 | 2026-27 | 2027-28 | 2028-29 | 2029-30 | 2030-31 | 2031-32 | 2032-33 | 2033-34 | 2034-35 |  |  |
|-------------------|----------------------|--|-------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--|--|
|                   |                      |  |       | Year     |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
| 2a <sub>BL</sub>  | Input as appropriate | Reductions in Baseline Deployable Output: Total here and specify below | M/d   | 0.00     | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |  |  |
|                   |                      |  | M/d   |          |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
|                   |                      |  | M/d   |          |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
|                   |                      |  | M/d   |          |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
|                   |                      |  | M/d   |          |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
| 7a <sub>BL</sub>  | Input as appropriate | Baseline Raw Water Exported (existing). Total here and specify below   | M/d   | 0.00     | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |  |  |
|                   |                      | to   | M/d   |          |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
|                   |                      | to   | M/d   |          |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
|                   |                      | to   | M/d   |          |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
| 8a <sub>BL</sub>  | Input as appropriate | Baseline Raw Water Imported (existing). Total here and specify below   | M/d   | 0.00     | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |  |  |
|                   |                      | from   | M/d   |          |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
|                   |                      | from   | M/d   |          |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
|                   |                      | from   | M/d   |          |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
| 10a <sub>BL</sub> | Input as appropriate | Baseline Non Potable Supplies (existing). Total here and specify below | M/d   | 0.00     | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |  |  |
|                   |                      | to   | M/d   |          |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
|                   |                      | to   | M/d   |          |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
|                   |                      | to   | M/d   |          |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
| 12a <sub>BL</sub> | Input as appropriate | Baseline Potable Water Imported. Total here and specify below          | M/d   | 0.00     | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |  |  |
|                   |                      | from   | M/d   |          |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
|                   |                      | from   | M/d   |          |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
|                   |                      | from   | M/d   |          |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
| 13a <sub>BL</sub> | Input as appropriate | Baseline Potable Water Exported. Total here and specify below          | M/d   | 0.00     | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |  |  |
|                   |                      | to   | M/d   |          |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
|                   |                      | to   | M/d   |          |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
|                   |                      | to   | M/d   |          |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |

|                          |                               |
|--------------------------|-------------------------------|
| Company:                 | <u>Northumbrian Water</u>     |
| Resource Zone Name:      | <u>Berwick &amp; Fowberry</u> |
| Resource Zone Number:    | <u>2 of 3</u>                 |
| Planning Scenario Name:  | <u>Dry</u>                    |
| Chosen Level of Service: | <u>Company Preferred</u>      |





**Table WRP4-FP: Final Planning Supply Demand Components**

| ROW Ref.   | DERIVATION   | DESCRIPTION  | UNITS | Scenario Year 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 | 2025-26 | 2026-27 | 2027-28 | 2028-29 | 2029-30 | 2030-31 | 2031-32 | 2032-33 | 2033-34 | 2034-35 |       |
|--|--|--|-------|-----------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------|
| <b>BASIC RESOURCES FINAL PLANNING</b>                    |  |  |       |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |       |
| 1 <sub>FP</sub>  | Input  | Deployable Output (Specify individual Source Yields on Table WRP4) | Mi/d  | 11.76                 | 11.76   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29   | 12.29 |
| 2 <sub>FP</sub>  | WRP4a-FP 2a <sub>FP</sub>  | Reductions in Deployable Output                                    | Mi/d  | 0.00                  | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00  |
| 3 <sub>FP</sub>  | Input  | Outage Allowance   | Mi/d  | 0.10                  | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10  |
| 4 <sub>FP</sub>  | 9 <sub>FP</sub> +11 <sub>FP</sub>  | Process Losses   | Mi/d  | 0.00                  | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00  |
| 5 <sub>FP</sub>  | 1 <sub>FP</sub> -(2 <sub>FP</sub> +3 <sub>FP</sub> +4 <sub>FP</sub> )                                      | Water Available For Use (own sources)                              | Mi/d  | 11.66                 | 11.66   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19 |
| <b>RAW WATER FINAL PLANNING</b>                          |  |  |       |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |       |
| 6 <sub>FP</sub>  | Input  | Raw Water Abstracted   | Mi/d  | 9.20                  | 8.64    | 8.67    | 8.67    | 8.84    | 8.87    | 8.89    | 8.91    | 8.94    | 8.97    | 9.00    | 9.03    | 9.07    | 9.11    | 9.15    | 9.19    | 9.24    | 9.29    | 9.34    | 9.39    | 9.44    | 9.49    | 9.54    | 9.59    | 9.65    | 9.70    | 9.76    | 9.83    | 9.89    |       |
| 7 <sub>FP</sub>  | WRP4a-FP 7a <sub>FP</sub>  | Raw Water Exported   | Mi/d  | 0.00                  | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |       |
| 8 <sub>FP</sub>  | WRP4a-FP 8a <sub>FP</sub>  | Raw Water Imported   | Mi/d  | 0.00                  | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |       |
| 9 <sub>FP</sub>  | Input  | Raw Water Losses and Operational Use                               | Mi/d  | 0.20                  | 0.20    | 0.21    | 0.22    | 0.22    | 0.23    | 0.24    | 0.25    | 0.25    | 0.26    | 0.27    | 0.27    | 0.28    | 0.29    | 0.29    | 0.30    | 0.31    | 0.32    | 0.32    | 0.33    | 0.34    | 0.34    | 0.35    | 0.36    | 0.36    | 0.37    | 0.38    | 0.39    | 0.39    |       |
| 10 <sub>FP</sub>   | WRP4a-FP 10a <sub>FP</sub>   | Non Potable Supplies   | Mi/d  | 0.00                  | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |       |
| <b>POTABLE WATER TO POINT OF DELIVERY FINAL PLANNING</b> |  |  |       |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |       |
| 11 <sub>FP</sub>   | Input  | Treatment Works Losses and Operational Use                         | Mi/d  | 0.00                  | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |       |
| 12 <sub>FP</sub>   | WRP4a-FP 12a <sub>FP</sub>   | Potable Water Imported   | Mi/d  | 0.00                  | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |       |
| 13 <sub>FP</sub>   | WRP4a-FP 13a <sub>FP</sub>   | Potable Water Exported   | Mi/d  | 0.00                  | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |       |
| 14 <sub>FP</sub>   | Input  | Distribution Input   | Mi/d  | 8.87                  | 8.34    | 8.36    | 8.35    | 8.51    | 8.53    | 8.54    | 8.56    | 8.57    | 8.59    | 8.62    | 8.64    | 8.67    | 8.70    | 8.74    | 8.77    | 8.81    | 8.84    | 8.89    | 8.93    | 8.97    | 9.01    | 9.05    | 9.10    | 9.14    | 9.19    | 9.24    | 9.29    | 9.35    |       |
| 15 <sub>FP</sub>   | Input  | Distribution Losses  | Mi/d  | 1.45                  | 1.05    | 1.05    | 1.05    | 1.25    | 1.25    | 1.25    | 1.25    | 1.25    | 1.25    | 1.25    | 1.25    | 1.25    | 1.26    | 1.26    | 1.26    | 1.26    | 1.26    | 1.26    | 1.26    | 1.26    | 1.27    | 1.27    | 1.27    | 1.27    | 1.27    | 1.27    | 1.27    | 1.27    |       |
| 16 <sub>FP</sub>   | Input  | Distribution System Operational Use                                | Mi/d  | 0.13                  | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    |       |
| 17 <sub>FP</sub>   | 14 <sub>FP</sub> -15 <sub>FP</sub> -16 <sub>FP</sub>   | Water Delivered  | Mi/d  | 7.29                  | 7.17    | 7.19    | 7.18    | 7.13    | 7.15    | 7.16    | 7.18    | 7.19    | 7.21    | 7.24    | 7.26    | 7.29    | 7.32    | 7.35    | 7.38    | 7.42    | 7.46    | 7.50    | 7.54    | 7.58    | 7.62    | 7.66    | 7.70    | 7.75    | 7.79    | 7.84    | 7.89    | 7.94    |       |
| <b>POTABLE WATER CUSTOMER USE FINAL PLANNING</b>         |  |  |       |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |       |
| 18 <sub>FP</sub>   | Input  | Unmeasured Household - Population                                  | 000's | 18.19                 | 17.95   | 17.58   | 17.23   | 16.46   | 16.15   | 15.85   | 15.55   | 15.24   | 14.95   | 14.66   | 14.37   | 14.09   | 13.82   | 13.54   | 13.28   | 13.06   | 12.85   | 12.64   | 12.44   | 12.25   | 12.06   | 11.88   | 11.64   | 11.41   | 11.18   | 10.96   | 10.74   | 10.52   |       |
| 19 <sub>FP</sub>   | Input  | Unmeasured Household - Properties                                  | 000's | 7.18                  | 7.13    | 7.01    | 6.90    | 6.81    | 6.71    | 6.62    | 6.53    | 6.43    | 6.34    | 6.25    | 6.16    | 6.06    | 5.97    | 5.88    | 5.78    | 5.69    | 5.60    | 5.50    | 5.41    | 5.32    | 5.23    | 5.13    | 5.04    | 4.95    | 4.85    | 4.76    | 4.67    | 4.57    |       |
| 20 <sub>FP</sub>   | 18 <sub>FP</sub> /19 <sub>FP</sub>   | Unmeasured Household - Occupancy Rate                              | h/pr  | 2.54                  | 2.52    | 2.51    | 2.50    | 2.42    | 2.41    | 2.39    | 2.38    | 2.37    | 2.36    | 2.35    | 2.33    | 2.32    | 2.32    | 2.30    | 2.29    | 2.30    | 2.30    | 2.30    | 2.30    | 2.31    | 2.31    | 2.31    | 2.31    | 2.30    | 2.30    | 2.30    | 2.30    | 2.30    |       |
| 21 <sub>FP</sub>   | Input  | Measured Household - Population                                    | 000's | 2.17                  | 2.39    | 2.74    | 3.07    | 3.38    | 3.68    | 3.98    | 4.29    | 4.59    | 4.88    | 5.18    | 5.47    | 5.75    | 6.02    | 6.31    | 6.60    | 6.90    | 7.18    | 7.47    | 7.74    | 8.00    | 8.24    | 8.49    | 8.78    | 9.08    | 9.37    | 9.66    | 9.95    | 10.23   |       |
| 22 <sub>FP</sub>   | Input  | Measured Household - Properties                                    | 000's | 1.44                  | 1.54    | 1.73    | 1.90    | 2.07    | 2.23    | 2.39    | 2.56    | 2.72    | 2.88    | 3.04    | 3.20    | 3.35    | 3.50    | 3.66    | 3.81    | 3.96    | 4.11    | 4.26    | 4.39    | 4.53    | 4.65    | 4.78    | 4.93    | 5.08    | 5.23    | 5.37    | 5.52    | 5.66    |       |
| 23 <sub>FP</sub>   | 21 <sub>FP</sub> /22 <sub>FP</sub>   | Measured Household - Occupancy Rate                                | h/pr  | 1.51                  | 1.56    | 1.59    | 1.61    | 1.64    | 1.65    | 1.67    | 1.68    | 1.69    | 1.70    | 1.71    | 1.71    | 1.72    | 1.73    | 1.73    | 1.74    | 1.75    | 1.75    | 1.76    | 1.77    | 1.77    | 1.78    | 1.78    | 1.79    | 1.79    | 1.80    | 1.80    | 1.81    |         |       |
| 24 <sub>FP</sub>   | Input  | Unmeasured Non Household - Population                              | 000's | 0.11                  | 0.11    | 0.11    | 0.11    | 0.11    | 0.11    | 0.11    | 0.11    | 0.11    | 0.11    | 0.11    | 0.12    | 0.12    | 0.12    | 0.12    | 0.12    | 0.12    | 0.12    | 0.13    | 0.13    | 0.13    | 0.13    | 0.14    | 0.14    | 0.14    | 0.14    | 0.15    | 0.15    |         |       |
| 25 <sub>FP</sub>   | Input  | Unmeasured Non Household - Properties                              | 000's | 0.15                  | 0.13    | 0.13    | 0.12    | 0.11    | 0.11    | 0.11    | 0.11    | 0.11    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.09    | 0.09    | 0.09    | 0.09    | 0.09    | 0.09    | 0.09    | 0.09    | 0.08    | 0.08    | 0.08    | 0.08    | 0.08    | 0.08    |         |       |
| 26 <sub>FP</sub>   | Input  | Measured Non Household - Population                                | 000's | 0.56                  | 0.56    | 0.57    | 0.57    | 0.58    | 0.58    | 0.59    | 0.59    | 0.60    | 0.60    | 0.61    | 0.61    | 0.62    | 0.63    | 0.63    | 0.64    | 0.66    | 0.67    | 0.68    | 0.69    | 0.70    | 0.71    | 0.73    | 0.74    | 0.76    | 0.77    | 0.78    | 0.80    |         |       |
| 27 <sub>FP</sub>   | Input  | Measured Non Household - Properties                                | 000's | 0.75                  | 0.79    | 0.80    | 0.82    | 0.83    | 0.84    | 0.85    | 0.85    | 0.86    | 0.87    | 0.87    | 0.88    | 0.89    | 0.90    | 0.91    | 0.92    | 0.93    | 0.95    | 0.97    | 0.98    | 1.00    | 1.02    | 1.04    | 1.06    | 1.08    | 1.10    | 1.12    | 1.13    | 1.15    |       |
| 28 <sub>FP</sub>   | 18 <sub>FP</sub> +21 <sub>FP</sub> +24 <sub>FP</sub> +26 <sub>FP</sub>                                     | Total Population   | 000's | 21.030                | 21.014  | 20.996  | 20.980  | 20.534  | 20.531  | 20.533  | 20.533  | 20.535  | 20.543  | 20.552  | 20.562  | 20.573  | 20.583  | 20.594  | 20.631  | 20.719  | 20.810  | 20.900  | 20.986  | 21.066  | 21.141  | 21.215  | 21.290  | 21.371  | 21.453  | 21.535  | 21.617  | 21.699  |       |
| 29 <sub>FP</sub>   | Input  | Void Households  | 000's | 0.45                  | 0.36    | 0.36    | 0.37    | 0.37    | 0.37    | 0.38    | 0.38    | 0.38    | 0.39    | 0.39    | 0.39    | 0.39    | 0.40    | 0.40    | 0.40    | 0.41    | 0.41    | 0.41    | 0.41    | 0.41    | 0.41    | 0.42    | 0.42    | 0.42    | 0.42    | 0.42    | 0.43    |         |       |
| 30 <sub>FP</sub>   | Input  | Void Non Households  | 000's | 0.16                  | 0.19    | 0.19    | 0.19    | 0.19    | 0.19    | 0.19    | 0.19    | 0.19    | 0.19    | 0.19    | 0.19    | 0.19    | 0.19    | 0.19    | 0.19    | 0.19    | 0.19    | 0.19    | 0.19    | 0.19    | 0.19    | 0.19    | 0.19    | 0.19    | 0.19    | 0.19    | 0.19    | 0.19    |       |
| 31 <sub>FP</sub>   | 19 <sub>FP</sub> +22 <sub>FP</sub> +25 <sub>FP</sub> +27 <sub>FP</sub> +29 <sub>FP</sub> +30 <sub>FP</sub> | Total Properties   | 000's | 10.116                | 10.135  | 10.213  | 10.292  | 10.373  | 10.452  | 10.529  | 10.607  | 10.683  | 10.759  | 10.837  | 10.913  | 10.987  | 11.055  | 11.123  | 11.193  | 11.268  | 11.340  | 11.415  | 11.475  | 11.531  | 11.580  | 11.632  | 11.711  | 11.788  | 11.863  | 11.938  | 12.010  | 12.080  |       |
| <b>POTABLE WATER DELIVERED FINAL PLANNING</b>            |  |  |       |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |       |
| 32 <sub>FP</sub>   | Input  | Water Taken Unbilled   | Mi/d  | 0.12                  | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    |         |       |
| 33 <sub>FP</sub>   | Input  | Water Delivered Unmeasured Household                               | Mi/d  | 3.52                  | 3.49    | 3.42    | 3.37    | 3.27    | 3.22    | 3.17    | 3.11    | 3.05    | 2.99    | 2.93    | 2.88    | 2.82    | 2.77    | 2.71    | 2.66    | 2.61    | 2.57    | 2.53    | 2.49    | 2.45    | 2.41    | 2.38    | 2.33    | 2.29    | 2.25    | 2.21    | 2.17    | 2.14    |       |
| 34 <sub>FP</sub>   | Input  | Unmeasured Household - USPL  | Mi/d  | 0.70                  | 0.70    | 0.68    | 0.67    | 0.66    | 0.65    | 0.65    |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |       |

Table WRP4a-FP: Final Planning WRP3 Supporting transfer and DO reduction data

| ROW Ref.          | DERIVATION           | DESCRIPTION<br><i>[insert/delete non-numbered lines to suit]</i>             | UNITS | Scenario Year 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 | 2025-26 | 2026-27 | 2027-28 | 2028-29 | 2029-30 | 2030-31 | 2031-32 | 2032-33 | 2033-34 | 2034-35 |  |  |
|-------------------|----------------------|--|-------|-----------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--|--|
| 2a <sub>FP</sub>  | Input as appropriate | Reductions in Final Planning Deployable Output. Total here and specify below | MI/d  | 0.00                  | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |         |  |  |
|                   |                      |  | MI/d  |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
|                   |                      |  | MI/d  |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
|                   |                      |  | MI/d  |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
| 7a <sub>FP</sub>  | Input as appropriate | Final Planning Raw Water Exported. Total here and specify below              | MI/d  | 0.00                  | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |         |  |  |
|                   |                      | to   | MI/d  |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
|                   |                      | to   | MI/d  |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
|                   |                      | to   | MI/d  |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
| 8a <sub>FP</sub>  | Input as appropriate | Final Planning Raw Water Imported. Total here and specify below              | MI/d  | 0.00                  | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |         |  |  |
|                   |                      | from   | MI/d  |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
|                   |                      | from   | MI/d  |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
|                   |                      | from   | MI/d  |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
| 10a <sub>FP</sub> | Input as appropriate | Final Planning Non Potable Supplies. Total here and specify below            | MI/d  | 0.00                  | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |         |  |  |
|                   |                      | to   | MI/d  |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
|                   |                      | to   | MI/d  |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
|                   |                      | to   | MI/d  |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
| 12a <sub>FP</sub> | Input as appropriate | Final Planning Potable Water Imported. Total here and specify below          | MI/d  | 0.00                  | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |  |  |
|                   |                      | from   | MI/d  |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
|                   |                      | from   | MI/d  |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
|                   |                      | from   | MI/d  |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
| 13a <sub>FP</sub> | Input as appropriate | Final Planning Potable Water Exported. Total here and specify below          | MI/d  | 0.00                  | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |  |  |
|                   |                      | to   | MI/d  |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
|                   |                      | to   | MI/d  |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
|                   |                      | to   | MI/d  |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |

|                          |                    |
|--------------------------|--------------------|
| Company:                 | Northumbrian Water |
| Resource Zone Name       | Berwick & Fowberry |
| Resource Zone Number:    | 2 of 3             |
| Planning Scenario Name:  | Dry                |
| Chosen Level of Service: | Company Preferred  |



WRP6: Breakdown of Measured Households (Dry Year Baseline)

Cumulative breakdown

| Row Ref | Derivation                         | Description | Units      | Scenario Year 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 | 2025-26 | 2026-27 | 2027-28 | 2028-29 | 2029-30 | 2030-31 | 2031-32 | 2032-33 | 2033-34 | 2034-35 |
|---------|------------------------------------|-------------|------------|-----------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 6.1     | (year-1)+(6.2*6.3)                 | Total       | Population | 000's                 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |         |
| 6.2     | (year-1)+(6.6+6.10+6.14+6.18+6.22) | Total       | Properties | 000's                 | 0.21    | 0.39    | 0.57    | 0.74    | 0.91    | 1.08    | 1.25    | 1.42    | 1.59    | 1.75    | 1.92    | 2.08    | 2.24    | 2.40    | 2.56    | 2.72    | 2.87    | 3.03    | 3.18    | 3.32    | 3.45    | 3.58    | 3.73    | 3.88    | 4.04    | 4.19    | 4.34    | 4.49    |
| 6.3     | 6.1/6.2                            | Total       | Occupancy  | h/prop                |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| 6.4     | (Blank)                            |             |            |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |

Annual increase

|      |           |                                    |            |        |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|------|-----------|------------------------------------|------------|--------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 6.5  | 6.6*6.7   | Optant annual increase             | Population | 000's  | 0.00 | 0.28   | 0.24   | 0.23   | 0.21   | 0.21   | 0.21   | 0.21   | 0.21   | 0.21   | 0.21   | 0.21   | 0.21   | 0.11   | 0.10   | 0.10   | 0.09   | 0.09   | 0.09   | 0.08   | 0.08   | 0.07   | 0.07   | 0.06   | 0.06   | 0.06   | 0.06   |        |        |
| 6.6  | Input     | Optant annual increase             | Properties | 000's  | 0.00 | 0.15   | 0.13   | 0.12   | 0.11   | 0.11   | 0.11   | 0.11   | 0.11   | 0.11   | 0.11   | 0.11   | 0.11   | 0.06   | 0.06   | 0.05   | 0.05   | 0.05   | 0.05   | 0.05   | 0.04   | 0.04   | 0.04   | 0.03   | 0.03   | 0.03   | 0.03   |        |        |
| 6.7  | Input     | Optant annual increase             | Occupancy  | h/prop | 0.00 | 1.85   | 1.85   | 1.85   | 1.85   | 1.84   | 1.84   | 1.84   | 1.84   | 1.84   | 1.83   | 1.83   | 1.83   | 1.83   | 1.83   | 1.82   | 1.82   | 1.82   | 1.82   | 1.82   | 1.81   | 1.81   | 1.81   | 1.81   | 1.81   | 1.80   | 1.80   |        |        |
| 6.8  | Input     | Optant annual increase             | pcc        | l/h/d  | 0.00 | 146.23 | 146.38 | 147.08 | 148.60 | 149.26 | 149.33 | 149.21 | 149.07 | 148.93 | 148.81 | 148.69 | 148.55 | 148.38 | 148.27 | 148.15 | 148.08 | 147.99 | 148.05 | 148.11 | 148.20 | 148.30 | 148.42 | 148.69 | 148.96 | 149.24 | 149.82 | 150.42 | 151.04 |
| 6.9  | 6.10*6.11 | New Property annual increase       | Population | 000's  | 0.00 | 0.11   | 0.10   | 0.10   | 0.10   | 0.10   | 0.10   | 0.10   | 0.10   | 0.10   | 0.10   | 0.09   | 0.08   | 0.08   | 0.08   | 0.08   | 0.08   | 0.07   | 0.06   | 0.05   | 0.04   | 0.03   | 0.05   | 0.08   | 0.07   | 0.07   | 0.06   |        |        |
| 6.10 | Input     | New Property annual increase       | Properties | 000's  | 0.09 | 0.06   | 0.05   | 0.05   | 0.06   | 0.06   | 0.05   | 0.05   | 0.05   | 0.05   | 0.05   | 0.05   | 0.04   | 0.04   | 0.04   | 0.04   | 0.04   | 0.04   | 0.03   | 0.03   | 0.02   | 0.02   | 0.03   | 0.04   | 0.04   | 0.04   | 0.04   |        |        |
| 6.11 | Input     | New Property annual increase       | Occupancy  | h/prop | 0.00 | 1.89   | 1.89   | 1.89   | 1.89   | 1.89   | 1.88   | 1.88   | 1.88   | 1.88   | 1.87   | 1.87   | 1.87   | 1.87   | 1.87   | 1.86   | 1.86   | 1.86   | 1.86   | 1.86   | 1.85   | 1.85   | 1.85   | 1.85   | 1.85   | 1.84   | 1.84   |        |        |
| 6.12 | Input     | New Property annual increase       | pcc        | l/h/d  | 0.00 | 140.91 | 141.59 | 142.30 | 143.04 | 143.32 | 142.91 | 142.64 | 142.48 | 142.40 | 142.36 | 142.36 | 142.38 | 142.42 | 142.45 | 142.50 | 142.39 | 142.31 | 142.25 | 142.21 | 142.19 | 142.18 | 142.17 | 142.20 | 142.24 | 142.29 | 142.46 | 142.80 |        |
| 6.13 | 6.14*6.15 | Change in OCC annual increase      | Population | 000's  | 0.00 | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   |        |        |
| 6.14 | Input     | Change in OCC annual increase      | Properties | 000's  |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| 6.15 | Input     | Change in OCC annual increase      | Occupancy  | h/prop |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| 6.16 | Input     | Change in OCC annual increase      | pcc        | l/h/d  |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| 6.17 | 6.18*6.19 | Selected annual increase           | Population | 000's  | 0.00 | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.12   | 0.13   | 0.13   | 0.14   | 0.14   | 0.14   | 0.15   | 0.15   | 0.16   | 0.17   | 0.18   | 0.18   | 0.18   | 0.18   |        |        |
| 6.18 | Input     | Selected annual increase           | Properties | 000's  |      |        |        |        |        |        |        |        |        |        |        |        |        | 0.06   | 0.06   | 0.06   | 0.06   | 0.07   | 0.07   | 0.07   | 0.07   | 0.07   | 0.08   | 0.08   | 0.08   | 0.08   | 0.08   |        |        |
| 6.19 | Input     | Selected annual increase           | Occupancy  | h/prop |      |        |        |        |        |        |        |        |        |        |        |        |        | 2.12   | 2.12   | 2.13   | 2.13   | 2.13   | 2.13   | 2.13   | 2.14   | 2.14   | 2.14   | 2.14   | 2.15   | 2.15   | 2.15   |        |        |
| 6.20 | Input     | Selected annual increase           | pcc        | l/h/d  |      |        |        |        |        |        |        |        |        |        |        |        |        | 143.62 | 143.51 | 143.44 | 143.36 | 143.41 | 143.47 | 143.56 | 143.66 | 143.77 | 144.03 | 144.29 | 144.57 | 145.13 | 145.71 | 146.31 |        |
| 6.21 | 6.22*6.23 | Compulsory metered annual increase | Population | 000's  | 0.00 | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   |        |        |
| 6.22 | Input     | Compulsory metered annual increase | Properties | 000's  |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| 6.23 | Input     | Compulsory metered annual increase | Occupancy  | h/prop |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| 6.24 | Input     | Compulsory metered annual increase | pcc        | l/h/d  |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |

|                          |                               |
|--------------------------|-------------------------------|
| Company:                 | <u>Northumbrian Water</u>     |
| Resource Zone Name       | <u>Berwick &amp; Fowberry</u> |
| Resource Zone Number:    | <u>2 of 3</u>                 |
| Planning Scenario Name:  | <u>Dry</u>                    |
| Chosen Level of Service: | <u>Company Preferred</u>      |



**WRP8:Non-Household Sector Consumption (Dry Year Baseline)**

| Row Ref | Derivation | Description                 | 2003 SIC codes | Units | Scenario Year 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 | 2025-26 | 2026-27 | 2027-28 | 2028-29 | 2029-30 | 2030-31 | 2031-32 | 2032-33 | 2033-34 |
|---------|------------|-----------------------------|----------------|-------|-----------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 8.1     | Input      | Primary products and metals |                | MI/d  | 0.41                  | 0.40    | 0.40    | 0.40    | 0.40    | 0.40    | 0.40    | 0.41    | 0.41    | 0.41    | 0.41    | 0.41    | 0.41    | 0.41    | 0.42    |         |         |         |         |         |         |         |         |         |         |         |         |         |
| 8.2     | Input      | Food, drink and tobacco     |                | MI/d  | 0.18                  | 0.18    | 0.19    | 0.20    | 0.21    | 0.22    | 0.24    | 0.25    | 0.27    | 0.29    | 0.31    | 0.33    | 0.35    | 0.38    | 0.40    |         |         |         |         |         |         |         |         |         |         |         |         |         |
| 8.3     | Input      | Chemicals and oil refining  |                | MI/d  | 0.35                  | 0.32    | 0.31    | 0.29    | 0.27    | 0.25    | 0.24    | 0.22    | 0.21    | 0.20    | 0.19    | 0.18    | 0.17    | 0.16    | 0.15    |         |         |         |         |         |         |         |         |         |         |         |         |         |
| 8.4     | Input      | Other manufacturing         |                | MI/d  | 0.07                  | 0.07    | 0.07    | 0.07    | 0.07    | 0.07    | 0.07    | 0.07    | 0.07    | 0.07    | 0.07    | 0.07    | 0.07    | 0.07    | 0.07    |         |         |         |         |         |         |         |         |         |         |         |         |         |
| 8.5     | Input      | Public services             |                | MI/d  | 0.18                  | 0.17    | 0.17    | 0.17    | 0.17    | 0.17    | 0.18    | 0.18    | 0.18    | 0.18    | 0.18    | 0.18    | 0.19    | 0.19    | 0.19    |         |         |         |         |         |         |         |         |         |         |         |         |         |
| 8.6     | Input      | Other sectors               |                | MI/d  | 0.55                  | 0.53    | 0.55    | 0.56    | 0.56    | 0.57    | 0.58    | 0.60    | 0.61    | 0.62    | 0.63    | 0.64    | 0.65    | 0.66    | 0.67    |         |         |         |         |         |         |         |         |         |         |         |         |         |
| 8.7     | Input      | Unallocated                 |                | MI/d  | 1.38                  | 1.33    | 1.35    | 1.34    | 1.35    | 1.35    | 1.36    | 1.37    | 1.37    | 1.38    | 1.39    | 1.40    | 1.40    | 1.41    | 1.42    |         |         |         |         |         |         |         |         |         |         |         |         |         |
| 8.8     | Input      | Total                       |                | MI/d  | 3.13                  | 3.01    | 3.04    | 3.03    | 3.03    | 3.05    | 3.07    | 3.09    | 3.11    | 3.14    | 3.17    | 3.20    | 3.24    | 3.28    | 3.32    | 3.35    | 3.39    | 3.42    | 3.45    | 3.49    | 3.52    | 3.56    | 3.59    | 3.63    | 3.67    | 3.70    | 3.74    | 3.78    |
| 8.9     | Input      |                             |                |       |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| 8.10    | Input      |                             |                |       |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| 8.11    | Input      |                             |                |       |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| 8.12    | Input      |                             |                |       |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| 8.13    | Input      |                             |                |       |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| 8.14    | Input      |                             |                |       |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| 8.15    | Input      |                             |                |       |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| 8.16    | Input      |                             |                |       |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| 8.17    | Input      |                             |                |       |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| 8.18    | Input      |                             |                |       |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| 8.19    | Input      |                             |                |       |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| 8.20    | Input      |                             |                |       |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |

|                          |                               |
|--------------------------|-------------------------------|
| Company:                 | <u>Northumbrian Water</u>     |
| Resource Zone Name       | <u>Berwick &amp; Fowberry</u> |
| Resource Zone Number:    | <u>2 of 3</u>                 |
| Planning Scenario Name:  | <u>Dry</u>                    |
| Chosen Level of Service: | <u>Company Preferred</u>      |

Table WRP9: Normal Year Final Planning Supply Demand Components

| ROW Ref.  | DERIVATION  | DESCRIPTION                                | UNITS  | Scenario Year 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 | 2025-26 | 2026-27 | 2027-28 | 2028-29 | 2029-30 | 2030-31 | 2031-32 | 2032-33 | 2033-34 | 2034-35 |  |
|---|---|--|--------|-----------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--|
| <b>BASIC RESOURCES NORMAL YEAR</b>                    |   |  |        |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |
| 3 <sub>N</sub>  | Input   | Outage Allowance                           | MI/d   | 0.10                  | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    | 0.10    |  |
| 5 <sub>N</sub>  | Input   | Water Available For Use (own sources)      | MI/d   | 11.66                 | 11.66   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   |  |
| <b>RAW WATER NORMAL YEAR</b>                          |   |  |        |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |
| 6 <sub>N</sub>  | Input   | Raw Water Abstracted                       | MI/d   | 9.20                  | 8.71    | 8.74    | 8.74    | 8.92    | 8.96    | 8.98    | 9.01    | 9.04    | 9.07    | 9.11    | 9.15    | 9.19    | 9.24    | 9.28    | 9.33    | 9.38    | 9.43    | 9.49    | 9.54    | 9.59    | 9.65    | 9.70    | 9.76    | 9.82    | 9.88    | 9.94    | 10.01   | 10.08   |  |
| 7 <sub>N</sub>  | Input   | Raw Water Exported (existing)              | MI/d   | 0.00                  | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |         |  |
| 8 <sub>N</sub>  | Input   | Raw Water Imported (existing)              | MI/d   | 0.00                  | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |         |  |
| 9 <sub>N</sub>  | Input   | Raw Water Losses and Operational Use       | MI/d   | 0.20                  | 0.20    | 0.21    | 0.22    | 0.22    | 0.23    | 0.24    | 0.25    | 0.25    | 0.26    | 0.27    | 0.27    | 0.28    | 0.29    | 0.29    | 0.30    | 0.31    | 0.32    | 0.32    | 0.33    | 0.34    | 0.34    | 0.35    | 0.36    | 0.36    | 0.37    | 0.38    | 0.39    |         |  |
| 10 <sub>N</sub>                                       | Input   | Non Potable Supplies (existing)            | MI/d   | 0.00                  | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |         |  |
| <b>POTABLE WATER TO POINT OF DELIVERY NORMAL YEAR</b> |   |  |        |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |
| 11 <sub>N</sub>                                       | Input   | Treatment Works Losses and Operational Use | MI/d   | 0.00                  | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |         |  |
| 12 <sub>N</sub>                                       | Input   | Potable Water Imported                     | MI/d   | 0.00                  | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |         |  |
| 13 <sub>N</sub>                                       | Input   | Potable Water Exported                     | MI/d   | 0.00                  | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |         |  |
| 14 <sub>N</sub>                                       | Input   | Distribution Input                         | MI/d   | 8.83                  | 8.37    | 8.41    | 8.41    | 8.58    | 8.61    | 8.64    | 8.66    | 8.69    | 8.72    | 8.76    | 8.80    | 8.84    | 8.88    | 8.93    | 8.97    | 9.02    | 9.07    | 9.12    | 9.17    | 9.22    | 9.27    | 9.33    | 9.38    | 9.44    | 9.50    | 9.56    | 9.62    | 9.69    |  |
| 15 <sub>N</sub>                                       | Input   | Distribution Losses                        | MI/d   | 1.45                  | 1.02    | 1.03    | 1.03    | 1.23    | 1.23    | 1.23    | 1.23    | 1.23    | 1.23    | 1.23    | 1.23    | 1.23    | 1.23    | 1.23    | 1.23    | 1.23    | 1.24    | 1.24    | 1.24    | 1.24    | 1.24    | 1.24    | 1.24    | 1.24    | 1.25    | 1.25    | 1.25    | 1.25    |  |
| 16 <sub>N</sub>                                       | Input   | Distribution System Operational Use        | MI/d   | 0.13                  | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    |  |
| 17 <sub>N</sub>                                       | 14 <sub>N</sub> -15 <sub>N</sub> -16 <sub>N</sub>                                     | Water Delivered                            | MI/d   | 7.25                  | 7.22    | 7.25    | 7.25    | 7.22    | 7.26    | 7.28    | 7.31    | 7.34    | 7.37    | 7.40    | 7.44    | 7.48    | 7.52    | 7.57    | 7.61    | 7.66    | 7.71    | 7.76    | 7.81    | 7.86    | 7.91    | 7.96    | 8.01    | 8.07    | 8.12    | 8.19    | 8.25    | 8.31    |  |
| <b>POTABLE WATER DELIVERED NORMAL YEAR</b>            |   |  |        |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |
| 32 <sub>N</sub>                                       | Input   | Water Taken Unbilled                       | MI/d   | 0.12                  | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    | 0.13    |  |
| 33 <sub>N</sub>                                       | Input   | Water Delivered Unmeasured Household       | MI/d   | 3.40                  | 3.43    | 3.37    | 3.32    | 3.22    | 3.17    | 3.12    | 3.06    | 3.00    | 2.94    | 2.89    | 2.83    | 2.78    | 2.72    | 2.67    | 2.62    | 2.57    | 2.53    | 2.49    | 2.45    | 2.41    | 2.38    | 2.34    | 2.30    | 2.26    | 2.22    | 2.18    | 2.14    | 2.11    |  |
| 34 <sub>N</sub>                                       | Input   | Unmeasured Household - USPL                | MI/d   | 0.70                  | 0.70    | 0.68    | 0.67    | 0.66    | 0.65    | 0.65    | 0.64    | 0.63    | 0.62    | 0.61    | 0.60    | 0.59    | 0.58    | 0.57    | 0.56    | 0.55    | 0.54    | 0.53    | 0.52    | 0.51    | 0.50    | 0.49    | 0.48    | 0.47    | 0.46    | 0.45    | 0.44    | 0.43    |  |
| 35 <sub>N</sub>                                       | 33 <sub>N</sub> -34 <sub>N</sub>  | Unmeasured Household - Consumption         | MI/d   | 2.70                  | 2.74    | 2.69    | 2.65    | 2.55    | 2.52    | 2.47    | 2.42    | 2.37    | 2.32    | 2.28    | 2.23    | 2.19    | 2.14    | 2.10    | 2.05    | 2.02    | 1.98    | 1.95    | 1.92    | 1.90    | 1.87    | 1.84    | 1.81    | 1.77    | 1.74    | 1.71    | 1.69    | 1.66    |  |
| 36 <sub>N</sub>                                       | Input   | Unmeasured Household - PCC                 | l/h/d  | 151.90                | 152.62  | 152.77  | 153.52  | 155.12  | 155.81  | 155.88  | 155.75  | 155.61  | 155.47  | 155.34  | 155.21  | 155.06  | 154.89  | 154.76  | 154.64  | 154.57  | 154.48  | 154.54  | 154.60  | 154.70  | 154.80  | 154.93  | 155.21  | 155.49  | 155.79  | 156.40  | 157.03  | 157.68  |  |
| 37 <sub>N</sub>                                       | Input   | Water Delivered Measured Household         | MI/d   | 0.47                  | 0.43    | 0.49    | 0.55    | 0.60    | 0.66    | 0.71    | 0.76    | 0.81    | 0.86    | 0.91    | 0.96    | 1.01    | 1.06    | 1.11    | 1.16    | 1.21    | 1.25    | 1.30    | 1.35    | 1.39    | 1.43    | 1.48    | 1.53    | 1.58    | 1.63    | 1.68    | 1.74    | 1.79    |  |
| 38 <sub>N</sub>                                       | Input   | Measured Household - USPL                  | MI/d   | 0.08                  | 0.09    | 0.10    | 0.11    | 0.12    | 0.12    | 0.13    | 0.14    | 0.15    | 0.16    | 0.17    | 0.17    | 0.18    | 0.19    | 0.20    | 0.21    | 0.21    | 0.22    | 0.23    | 0.24    | 0.24    | 0.25    | 0.25    | 0.26    | 0.27    | 0.28    | 0.29    | 0.30    |         |  |
| 39 <sub>N</sub>                                       | 37 <sub>N</sub> -38 <sub>N</sub>  | Measured Household - Consumption           | MI/d   | 0.39                  | 0.34    | 0.39    | 0.44    | 0.49    | 0.53    | 0.58    | 0.62    | 0.66    | 0.70    | 0.75    | 0.79    | 0.83    | 0.87    | 0.91    | 0.95    | 0.99    | 1.03    | 1.07    | 1.11    | 1.15    | 1.19    | 1.22    | 1.26    | 1.31    | 1.35    | 1.40    | 1.44    | 1.49    |  |
| 40 <sub>N</sub>                                       | Input   | Measured Household - PCC                   | l/h/d  | 179.24                | 141.27  | 142.09  | 142.91  | 143.88  | 144.38  | 144.40  | 144.36  | 144.32  | 144.29  | 144.26  | 144.23  | 144.19  | 144.14  | 144.07  | 143.97  | 143.88  | 143.78  | 143.77  | 143.77  | 143.79  | 143.82  | 143.87  | 144.01  | 144.15  | 144.31  | 144.70  | 145.12  | 145.56  |  |
| 41 <sub>N</sub>                                       | Input   | Water Delivered Unmeasured Non Household   | MI/d   | 0.13                  | 0.12    | 0.11    | 0.10    | 0.10    | 0.10    | 0.09    | 0.09    | 0.09    | 0.09    | 0.09    | 0.09    | 0.09    | 0.09    | 0.09    | 0.08    | 0.08    | 0.08    | 0.08    | 0.08    | 0.08    | 0.08    | 0.08    | 0.08    | 0.07    | 0.07    | 0.07    | 0.07    | 0.07    |  |
| 42 <sub>N</sub>                                       | Input   | Unmeasured Non Household - USPL            | MI/d   | 0.02                  | 0.01    | 0.01    | 0.01    | 0.01    | 0.01    | 0.01    | 0.01    | 0.01    | 0.01    | 0.01    | 0.01    | 0.01    | 0.01    | 0.01    | 0.01    | 0.01    | 0.01    | 0.01    | 0.01    | 0.01    | 0.01    | 0.01    | 0.01    | 0.01    | 0.01    | 0.01    | 0.01    |         |  |
| 43 <sub>N</sub>                                       | 41 <sub>N</sub> -42 <sub>N</sub>  | Unmeasured Non Household - Consumption     | MI/d   | 0.12                  | 0.10    | 0.10    | 0.09    | 0.09    | 0.08    | 0.08    | 0.08    | 0.08    | 0.08    | 0.08    | 0.08    | 0.08    | 0.08    | 0.08    | 0.08    | 0.07    | 0.07    | 0.07    | 0.07    | 0.07    | 0.07    | 0.07    | 0.07    | 0.07    | 0.06    | 0.06    | 0.06    |         |  |
| 44 <sub>N</sub>                                       | Input   | Water Delivered Measured Non Household     | MI/d   | 3.13                  | 3.01    | 3.04    | 3.03    | 3.03    | 3.05    | 3.07    | 3.09    | 3.11    | 3.14    | 3.17    | 3.20    | 3.24    | 3.28    | 3.32    | 3.35    | 3.39    | 3.42    | 3.45    | 3.49    | 3.52    | 3.56    | 3.59    | 3.63    | 3.67    | 3.70    | 3.74    | 3.78    | 3.82    |  |
| 45 <sub>N</sub>                                       | Input   | Measured Non Household - USPL              | MI/d   | 0.02                  | 0.02    | 0.02    | 0.02    | 0.02    | 0.02    | 0.02    | 0.02    | 0.02    | 0.02    | 0.02    | 0.02    | 0.02    | 0.02    | 0.02    | 0.03    | 0.03    | 0.03    | 0.03    | 0.03    | 0.03    | 0.03    | 0.03    | 0.03    | 0.03    | 0.03    | 0.03    | 0.03    |         |  |
| 46 <sub>N</sub>                                       | 44 <sub>N</sub> -45 <sub>N</sub>  | Measured Non Household - Consumption       | MI/d   | 3.11                  | 2.99    | 3.02    | 3.00    | 3.01    | 3.02    | 3.04    | 3.06    | 3.09    | 3.12    | 3.15    | 3.18    | 3.21    | 3.25    | 3.29    | 3.33    | 3.36    | 3.39    | 3.43    | 3.46    | 3.50    | 3.53    | 3.57    | 3.60    | 3.64    | 3.67    | 3.71    | 3.75    | 3.78    |  |
| 47 <sub>N</sub>                                       | Input   | Void Properties - USPL                     | MI/d   | 0.04                  | 0.04    | 0.04    | 0.04    | 0.04    | 0.04    | 0.04    | 0.04    | 0.04    | 0.04    | 0.04    | 0.04    | 0.04    | 0.04    | 0.04    | 0.04    | 0.04    | 0.04    | 0.04    | 0.04    | 0.04    | 0.04    | 0.04    | 0.04    | 0.04    | 0.04    | 0.04    | 0.04    |         |  |
| <b>LEAKAGE NORMAL YEAR</b>                            |   |  |        |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |
| 48 <sub>N</sub>                                       | Input   | Total Leakage                              | MI/d   | 2.32                  | 1.90    | 1.90    | 1.90    | 2.10    | 2.10    | 2.10    | 2.10    | 2.10    | 2.10    | 2.10    | 2.10    | 2.10    | 2.10    | 2.10    | 2.10    | 2.10    | 2.10    | 2.10    | 2.10    | 2.10    | 2.10    | 2.10    | 2.10    | 2.10    | 2.10    | 2.10    | 2.10    |         |  |
| 49 <sub>N</sub>                                       | Input   | Total Leakage                              | l/pr/d | 229.34                | 187.46  | 186.03  | 184.61  | 202.44  | 200.91  | 199.44  | 197.98  | 196.57  | 195.18  | 193.77  | 192.43  | 191.14  | 189.96  | 188.80  | 187.62  | 186.37  | 185.18  | 183.97  | 183.00  | 182.12  | 181.34  | 180.53  | 179.32  | 178.15  | 177.01  | 175.91  | 174.86  | 173.85  |  |
| <b>SUPPLY DEMAND BALANCE NORMAL YEAR</b>              |   |  |        |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |
| 50 <sub>N</sub>                                       | 5 <sub>N</sub> +(8 <sub>N</sub> +12 <sub>N</sub> )-(7 <sub>N</sub> +13 <sub>N</sub> ) | Total Water Available For Use              | MI/d   | 11.66                 | 11.66   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   | 12.19   |         |  |
| 51 <sub>N</sub>                                       | Input   | Available Headroom                         | MI/d   | 2.83                  | 3.29    | 3.78    | 3.78    | 3.61    | 3.58    | 3.55    | 3.53    | 3.50    | 3.47    | 3.43    | 3.39    | 3.35    | 3.31    | 3.26    | 3.22    | 3.17    | 3.12    | 3.07    | 3.02    | 2.97    | 2.92    | 2.86    | 2.81    | 2.75    | 2.69    | 2.63    | 2.57    | 2.50    |  |
| 52 <sub>N</sub>                                       | Input   | Target Headroom                            | MI/d   | 0.13                  | 0.13    | 0.13    |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |