

# 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.

**Company:** NORTHUMBRIAN WATER  
**Resource Zone Name** KIELDER  
**Resource Zone Number:** 1 of 3  
**Planning Scenario Name:** DRY  
**Chosen Level of Service:** COMPANY PREFERRED

**Responsible Officer:** M. Lunn **Signed:** M. Lunn **Dated:** 18-Apr-08

**Version:** Draft

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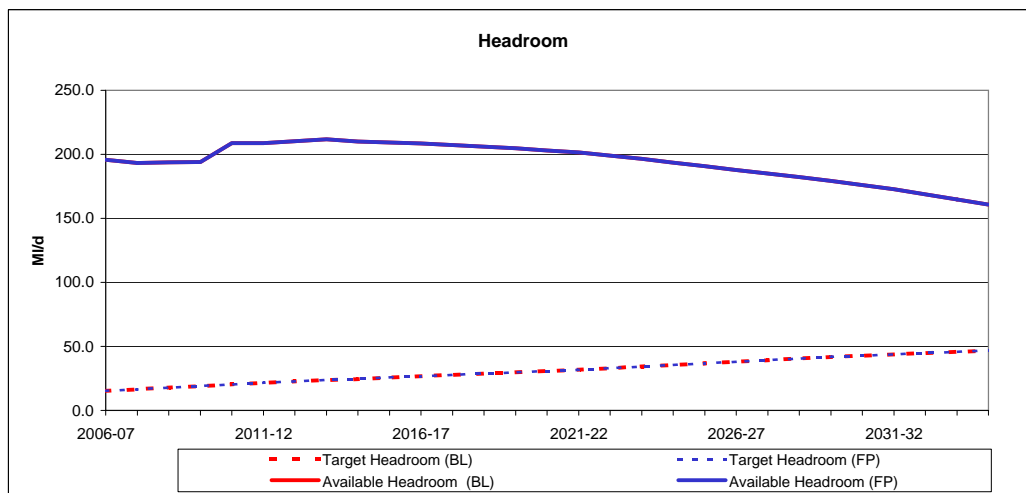
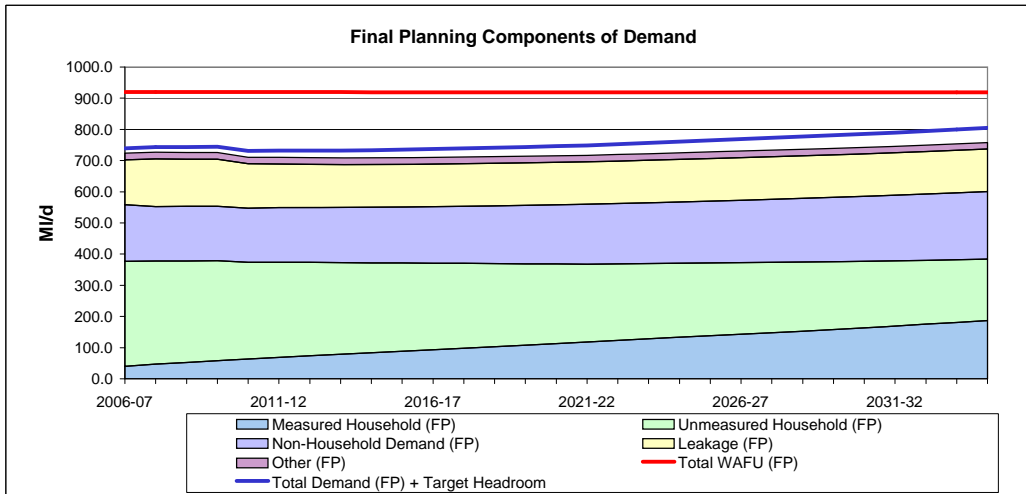
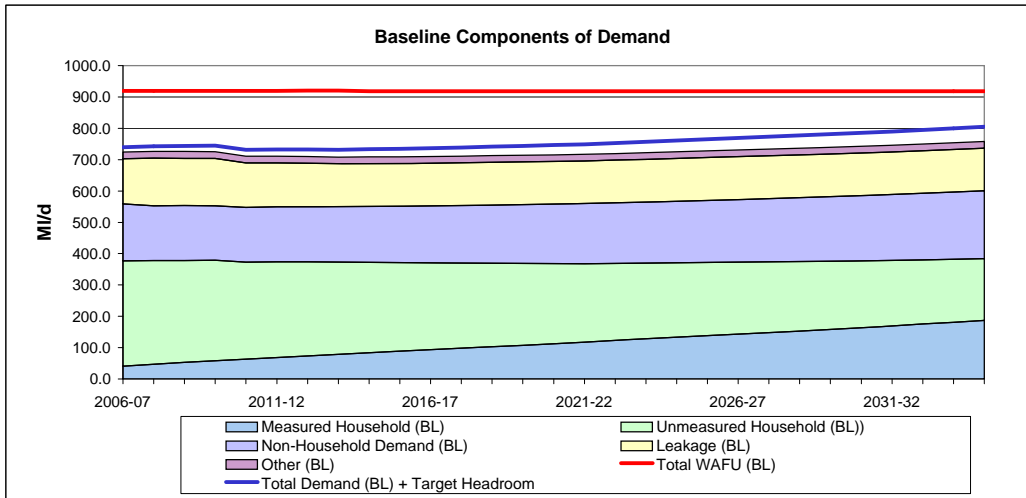
### WRP Tables

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| WRP3     | Preferred list of water management options                    |
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**Summary of WRP Tables Inputs**



|                          |                           |
|--------------------------|---------------------------|
| Company:                 | <u>NORTHUMBRIAN WATER</u> |
| Resource Zone Name       | <u>KIELDER</u>            |
| Resource Zone Number:    | <u>1 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) | M/d   | 969.33                | 969.33  | 969.33  | 969.33  | 969.33  | 969.33  | 969.33  | 969.33  | 968.13  | 968.13  | 968.13  | 968.13  | 968.13  | 968.13  | 968.13  | 968.13  | 968.13  | 968.13  | 968.13  | 968.13  | 968.13  | 968.13  | 968.13  | 968.13  | 968.13  | 968.13  | 968.13  | 968.13  | 968.13  | 968.13 |
| 2 <sub>BL</sub>                                    | WRP1a-BL 2a <sub>BL</sub>  | Reductions in Deployable Output                                    | 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   |
| 3 <sub>BL</sub>                                    | Input  | Outage Allowance   | M/d   | 49.00                 | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00  |
| 4 <sub>BL</sub>                                    | 9 <sub>BL</sub> +11 <sub>BL</sub>  | Process Losses   | 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   |
| 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)                              | M/d   | 920.33                | 920.33  | 920.33  | 920.33  | 920.33  | 920.33  | 920.33  | 920.33  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  |        |
| <b>RAW WATER BASELINE</b>                          |  |  |       |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |        |
| 6 <sub>BL</sub>                                    | Input  | Raw Water Abstracted   | M/d   | 745.10                | 748.44  | 747.85  | 747.75  | 727.22  | 728.98  | 729.65  | 730.10  | 730.71  | 731.57  | 732.64  | 733.87  | 735.25  | 736.74  | 738.51  | 740.24  | 742.93  | 745.69  | 748.75  | 751.82  | 754.86  | 757.79  | 760.78  | 764.02  | 767.43  | 770.89  | 775.08  | 779.34  | 783.68  |        |
| 7 <sub>BL</sub>                                    | WRP1a-BL 7a <sub>BL</sub>  | Raw Water Exported (existing)                                      | 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    |        |
| 8 <sub>BL</sub>                                    | WRP1a-BL 8a <sub>BL</sub>  | Raw Water Imported (existing)                                      | 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    |        |
| 9 <sub>BL</sub>                                    | Input  | Raw Water Losses and Operational Use                               | M/d   | 4.61                  | 4.67    | 4.73    | 4.79    | 4.85    | 4.91    | 4.96    | 5.02    | 5.08    | 5.14    | 5.20    | 5.26    | 5.31    | 5.37    | 5.43    | 5.49    | 5.55    | 5.61    | 5.67    | 5.72    | 5.78    | 5.84    | 5.90    | 5.96    | 6.02    | 6.07    | 6.13    | 6.19    | 6.25    |        |
| 10 <sub>BL</sub>                                   | WRP1a-BL 10a <sub>BL</sub>   | Non Potable Supplies (existing)                                    | 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    |        |
| <b>POTABLE WATER TO POINT OF DELIVERY BASELINE</b> |  |  |       |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |        |
| 11 <sub>BL</sub>                                   | Input  | Treatment Works Losses and Operational Use                         | M/d   | 41.57                 | 41.76   | 41.73   | 41.72   | 40.58   | 40.68   | 40.71   | 40.74   | 40.77   | 40.82   | 40.88   | 40.95   | 41.03   | 41.11   | 41.21   | 41.31   | 41.46   | 41.61   | 41.78   | 41.95   | 42.12   | 42.28   | 42.45   | 42.63   | 42.82   | 43.02   | 43.25   | 43.49   | 43.73   |        |
| 12 <sub>BL</sub>                                   | WRP1a-BL 12a <sub>BL</sub>   | Potable Water Imported   | 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    |        |
| 13 <sub>BL</sub>                                   | WRP1a-BL 13a <sub>BL</sub>   | Potable Water Exported   | M/d   | 0.76                  | 0.76    | 0.75    | 0.75    | 0.75    | 0.75    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    |        |
| 14 <sub>BL</sub>                                   | Input  | Distribution Input   | M/d   | 723.88                | 726.44  | 725.77  | 725.59  | 710.92  | 710.72  | 709.48  | 708.01  | 708.52  | 709.26  | 710.19  | 711.30  | 712.54  | 713.90  | 715.52  | 717.09  | 719.61  | 722.18  | 725.04  | 727.93  | 730.79  | 733.54  | 736.36  | 739.39  | 742.58  | 745.83  | 749.77  | 753.79  | 757.88  |        |
| 15 <sub>BL</sub>                                   | Input  | Distribution Losses  | M/d   | 93.39                 | 102.27  | 100.87  | 100.92  | 91.74   | 89.96   | 88.17   | 86.38   | 86.40   | 86.42   | 86.44   | 86.46   | 86.49   | 86.53   | 86.59   | 86.64   | 86.69   | 86.75   | 86.81   | 86.91   | 87.01   | 87.15   | 87.27   | 87.32   | 87.38   | 87.44   | 87.50   | 87.57   | 87.65   |        |
| 16 <sub>BL</sub>                                   | Input  | Distribution System Operational Use                                | M/d   | 12.09                 | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   |        |
| 17 <sub>BL</sub>                                   | 14 <sub>BL</sub> -15 <sub>BL</sub> -16 <sub>BL</sub>   | Water Delivered  | M/d   | 618.40                | 612.07  | 612.81  | 612.57  | 607.08  | 608.67  | 609.21  | 609.54  | 610.02  | 610.74  | 611.66  | 612.74  | 613.95  | 615.27  | 616.84  | 618.36  | 620.82  | 623.34  | 626.14  | 628.93  | 631.68  | 634.30  | 636.99  | 639.97  | 643.11  | 646.30  | 650.18  | 654.13  | 658.14  |        |
| <b>POTABLE WATER CUSTOMER USE BASELINE</b>         |  |  |       |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |        |
| 18 <sub>BL</sub>                                   | Input  | Unmeasured Household - Population                                  | 000's | 2173.24               | 2127.66 | 2086.19 | 2047.12 | 1956.94 | 1921.60 | 1887.03 | 1851.97 | 1817.77 | 1784.15 | 1750.12 | 1716.76 | 1684.31 | 1652.90 | 1619.16 | 1585.97 | 1557.79 | 1531.30 | 1503.89 | 1479.16 | 1454.51 | 1430.76 | 1406.52 | 1375.41 | 1345.11 | 1315.08 | 1285.24 | 1255.92 | 1227.06 |        |
| 19 <sub>BL</sub>                                   | Input  | Unmeasured Household - Properties                                  | 000's | 875.71                | 860.98  | 846.65  | 833.98  | 822.27  | 811.04  | 799.80  | 788.57  | 777.33  | 766.10  | 754.86  | 743.63  | 732.39  | 721.16  | 709.92  | 698.69  | 687.45  | 676.22  | 664.98  | 653.75  | 642.51  | 631.28  | 620.04  | 608.81  | 597.57  | 586.34  | 575.10  | 563.87  | 552.63  |        |
| 20 <sub>BL</sub>                                   | 18 <sub>BL</sub> /19 <sub>BL</sub>   | Unmeasured Household - Occupancy Rate                              | h/pr  | 2.48                  | 2.47    | 2.46    | 2.45    | 2.38    | 2.37    | 2.36    | 2.35    | 2.34    | 2.33    | 2.32    | 2.31    | 2.30    | 2.29    | 2.28    | 2.27    | 2.26    | 2.26    | 2.26    | 2.26    | 2.26    | 2.26    | 2.26    | 2.26    | 2.25    | 2.24    | 2.23    | 2.23    |         |        |
| 21 <sub>BL</sub>                                   | Input  | Measured Household - Population                                    | 000's | 286.05                | 328.94  | 367.71  | 404.09  | 439.63  | 474.04  | 508.26  | 542.98  | 576.88  | 610.70  | 645.09  | 678.80  | 711.70  | 743.48  | 777.83  | 814.55  | 851.66  | 887.51  | 924.14  | 957.74  | 990.50  | 1021.36 | 1052.64 | 1090.80 | 1129.03 | 1166.98 | 1204.77 | 1242.02 | 1278.82 |        |
| 22 <sub>BL</sub>                                   | Input  | Measured Household - Properties                                    | 000's | 161.20                | 185.84  | 208.52  | 229.55  | 249.89  | 269.53  | 289.06  | 308.79  | 328.33  | 347.61  | 367.14  | 386.32  | 405.09  | 423.31  | 441.58  | 460.00  | 478.50  | 496.30  | 514.36  | 530.91  | 546.97  | 562.04  | 577.21  | 595.44  | 613.55  | 631.43  | 649.20  | 666.68  | 683.91  |        |
| 23 <sub>BL</sub>                                   | 21 <sub>BL</sub> /22 <sub>BL</sub>   | Measured Household - Occupancy Rate                                | h/pr  | 1.77                  | 1.77    | 1.76    | 1.76    | 1.76    | 1.76    | 1.76    | 1.76    | 1.76    | 1.76    | 1.76    | 1.76    | 1.76    | 1.76    | 1.77    | 1.78    | 1.79    | 1.80    | 1.80    | 1.81    | 1.82    | 1.82    | 1.83    | 1.84    | 1.85    | 1.86    | 1.86    | 1.87    |         |        |
| 24 <sub>BL</sub>                                   | Input  | Unmeasured Non Household - Population                              | 000's | 7.20                  | 7.27    | 7.32    | 7.39    | 7.45    | 7.51    | 7.55    | 7.59    | 7.64    | 7.71    | 7.77    | 7.85    | 7.93    | 8.00    | 8.06    | 8.16    | 8.30    | 8.46    | 8.60    | 8.74    | 8.88    | 9.05    | 9.22    | 9.40    | 9.57    | 9.75    | 9.92    | 10.09   | 10.27   |        |
| 25 <sub>BL</sub>                                   | Input  | Unmeasured Non Household - Properties                              | 000's | 9.74                  | 9.15    | 8.56    | 7.96    | 7.61    | 7.51    | 7.41    | 7.32    | 7.22    | 7.12    | 7.02    | 6.92    | 6.82    | 6.72    | 6.63    | 6.53    | 6.43    | 6.33    | 6.23    | 6.13    | 6.03    | 5.94    | 5.84    | 5.74    | 5.64    | 5.54    | 5.44    | 5.34    | 5.25    |        |
| 26 <sub>BL</sub>                                   | Input  | Measured Non Household - Population                                | 000's | 38.87                 | 38.19   | 38.46   | 38.81   | 39.16   | 39.45   | 39.69   | 39.89   | 40.15   | 40.49   | 40.82   | 41.22   | 41.68   | 42.03   | 42.37   | 42.86   | 43.62   | 44.42   | 45.19   | 45.90   | 46.63   | 47.44   | 48.45   | 49.37   | 50.28   | 51.20   | 52.12   | 53.03   | 53.95   |        |
| 27 <sub>BL</sub>                                   | Input  | Measured Non Household - Properties                                | 000's | 51.23                 | 53.58   | 54.59   | 55.62   | 56.45   | 57.00   | 57.46   | 57.87   | 58.29   | 58.81   | 59.37   | 59.97   | 60.65   | 61.30   | 61.88   | 62.54   | 63.49   | 64.64   | 65.80   | 66.89   | 67.96   | 69.16   | 70.48   | 71.81   | 73.14   | 74.47   | 75.79   | 77.12   | 78.45   |        |
| 28 <sub>BL</sub>                                   | 18 <sub>BL</sub> +21 <sub>BL</sub> +24 <sub>BL</sub> +26 <sub>BL</sub>                                     | Total Population   | 000's | 2505.35               | 2502.05 | 2499.68 | 2497.41 | 2443.18 | 2442.59 | 2442.53 | 2442.44 | 2442.45 | 2443.05 | 2443.80 | 2444.62 | 2445.63 | 2446.41 | 2447.43 | 2451.54 | 2461.37 | 2471.69 | 2481.82 | 2491.54 | 2500.52 | 2508.71 | 2516.84 | 2524.97 | 2533.99 | 2543.02 | 2552.04 | 2561.06 | 2570.09 |        |
| 29 <sub>BL</sub>                                   | Input  | Void Households  | 000's | 45.14                 | 43.62   | 43.97   | 44.31   | 44.67   | 45.02   | 45.37   | 45.72   | 46.07   | 46.40   | 46.75   | 47.08   | 47.40   | 47.69   | 47.98   | 48.28   | 48.58   | 48.85   | 49.14   | 49.36   | 49.56   | 49.72   | 49.89   | 50.18   | 50.46   | 50.74   | 51.01   | 51.27   | 51.52   |        |
| 30 <sub>BL</sub>                                   | Input  | Void Non Households  | 000's | 11.28                 | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   |        |
| 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 | 1154.29               | 1165.79 | 1174.90 | 1184.04 | 1193.51 | 1202.72 | 1211.73 | 1220.88 | 1229.85 | 1238.66 | 1247.76 | 1256.53 | 1264.97 | 1272.79 | 1280.60 | 1288.65 | 1297.07 | 1304.96 | 1313.13 | 1319.66 | 1325.65 | 1330.75 | 1336.07 | 1344.59 | 1352.98 | 1361.14 | 1369.17 | 1376.90 | 1384.38 |        |
| <b>POTABLE WATER DELIVERED BASELINE</b>            |  |  |       |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |        |
| 32 <sub>BL</sub>                                   |  |  |       |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |        |

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 United Utilities  | 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   | 0.76     | 0.76    | 0.75    | 0.75    | 0.75    | 0.75    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    |  |  |
|                   |                      | to United Utilities and Yorkshire Water                                | M/d   |          |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
|                   |                      | to   | M/d   |          |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
|                   |                      | to   | M/d   |          |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |

|                          |                           |
|--------------------------|---------------------------|
| Company:                 | <u>NORTHUMBRIAN WATER</u> |
| Resource Zone Name       | <u>KIELDER</u>            |
| Resource Zone Number:    | <u>1 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) | Ml/d  | 969.33                | 969.33  | 969.33  | 969.33  | 969.33  | 969.33  | 969.33  | 969.33  | 968.13  | 968.13  | 968.13  | 968.13  | 968.13  | 968.13  | 968.13  | 968.13  | 968.13  | 968.13  | 968.13  | 968.13  | 968.13  | 968.13  | 968.13  | 968.13  | 968.13  | 968.13  | 968.13  | 968.13  | 968.13  | 968.13 |
| 2 <sub>FP</sub>  | WRP4a-FP 2a <sub>FP</sub>  | Reductions in Deployable Output                                    | Ml/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   | Ml/d  | 49.00                 | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00  |
| 4 <sub>FP</sub>  | 9 <sub>FP</sub> +11 <sub>FP</sub>  | Process Losses   | Ml/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)                              | Ml/d  | 920.33                | 920.33  | 920.33  | 920.33  | 920.33  | 920.33  | 920.33  | 920.33  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  |        |
| <b>RAW WATER FINAL PLANNING</b>                          |  |  |       |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |        |
| 6 <sub>FP</sub>  | Input  | Raw Water Abstracted   | Ml/d  | 745.10                | 747.95  | 739.03  | 738.58  | 733.60  | 734.88  | 736.48  | 738.51  | 740.76  | 743.05  | 745.50  | 748.13  | 750.89  | 753.90  | 756.33  | 756.86  | 757.31  | 757.54  | 757.76  | 757.73  | 757.60  | 757.31  | 757.10  | 757.55  | 758.98  | 760.28  | 761.51  | 762.70  | 763.85  |        |
| 7 <sub>FP</sub>  | WRP4a-FP 7a <sub>FP</sub>  | Raw Water Exported   | Ml/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   | Ml/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                               | Ml/d  | 4.61                  | 4.67    | 4.73    | 4.79    | 4.85    | 4.91    | 4.96    | 5.02    | 5.08    | 5.14    | 5.20    | 5.26    | 5.31    | 5.37    | 5.43    | 5.49    | 5.55    | 5.61    | 5.67    | 5.72    | 5.78    | 5.84    | 5.90    | 5.96    | 6.02    | 6.07    | 6.13    | 6.19    | 6.25    |        |
| 10 <sub>FP</sub>   | WRP4a- FP 10a <sub>FP</sub>  | Non Potable Supplies   | Ml/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                         | Ml/d  | 41.57                 | 41.76   | 41.73   | 41.72   | 40.58   | 40.68   | 40.71   | 40.74   | 40.77   | 40.82   | 40.88   | 40.95   | 41.03   | 41.11   | 41.21   | 41.31   | 41.46   | 41.61   | 41.78   | 41.95   | 42.12   | 42.28   | 42.45   | 42.63   | 42.82   | 43.02   | 43.25   | 43.49   | 43.73   |        |
| 12 <sub>FP</sub>   | WRP4a-FP 12a <sub>FP</sub>   | Potable Water Imported   | Ml/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   | Ml/d  | 0.76                  | 0.76    | 0.75    | 0.75    | 0.75    | 0.75    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51   |
| 14 <sub>FP</sub>   | Input  | Distribution Input   | Ml/d  | 723.88                | 726.44  | 725.77  | 725.59  | 710.92  | 710.72  | 709.48  | 708.01  | 708.52  | 709.26  | 710.19  | 711.30  | 712.54  | 713.90  | 715.52  | 717.09  | 719.61  | 722.18  | 725.04  | 727.93  | 730.79  | 733.54  | 736.36  | 739.39  | 742.58  | 745.83  | 749.77  | 753.79  | 757.88  |        |
| 15 <sub>FP</sub>   | Input  | Distribution Losses  | Ml/d  | 93.39                 | 102.27  | 100.87  | 100.92  | 91.74   | 89.96   | 88.17   | 86.38   | 86.40   | 86.42   | 86.44   | 86.46   | 86.49   | 86.53   | 86.59   | 86.64   | 86.69   | 86.75   | 86.81   | 86.91   | 87.01   | 87.15   | 87.27   | 87.32   | 87.38   | 87.44   | 87.50   | 87.57   | 87.65   |        |
| 16 <sub>FP</sub>   | Input  | Distribution System Operational Use                                | Ml/d  | 12.09                 | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09  |
| 17 <sub>FP</sub>   | 14 <sub>FP</sub> -15 <sub>FP</sub> -16 <sub>FP</sub>   | Water Delivered  | Ml/d  | 618.40                | 612.07  | 612.81  | 612.57  | 607.08  | 608.67  | 609.21  | 609.54  | 610.02  | 610.74  | 611.66  | 612.74  | 613.95  | 615.27  | 616.84  | 618.36  | 620.82  | 623.34  | 626.14  | 628.93  | 631.68  | 634.30  | 636.99  | 639.97  | 643.11  | 646.30  | 650.18  | 654.13  | 658.14  |        |
| <b>POTABLE WATER CUSTOMER USE FINAL PLANNING</b>         |  |  |       |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |        |
| 18 <sub>FP</sub>   | Input  | Unmeasured Household - Population                                  | 000's | 2173.24               | 2127.66 | 2086.19 | 2047.12 | 1956.94 | 1921.60 | 1887.03 | 1851.97 | 1817.77 | 1784.15 | 1750.12 | 1716.76 | 1684.31 | 1652.90 | 1619.16 | 1585.97 | 1557.79 | 1531.30 | 1503.89 | 1479.16 | 1454.51 | 1430.76 | 1406.52 | 1375.41 | 1345.11 | 1315.08 | 1285.24 | 1255.92 | 1227.06 |        |
| 19 <sub>FP</sub>   | Input  | Unmeasured Household - Properties                                  | 000's | 875.71                | 860.98  | 846.65  | 833.98  | 822.27  | 811.04  | 799.80  | 788.57  | 777.33  | 766.10  | 754.86  | 743.63  | 732.39  | 721.16  | 709.92  | 698.69  | 687.45  | 676.22  | 664.98  | 653.75  | 642.51  | 631.28  | 620.04  | 608.81  | 597.57  | 586.34  | 575.10  | 563.87  | 552.63  |        |
| 20 <sub>FP</sub>   | 18 <sub>FP</sub> /19 <sub>FP</sub>   | Unmeasured Household - Occupancy Rate                              | h/pr  | 2.48                  | 2.47    | 2.46    | 2.45    | 2.38    | 2.37    | 2.36    | 2.35    | 2.34    | 2.33    | 2.32    | 2.31    | 2.30    | 2.29    | 2.28    | 2.27    | 2.27    | 2.26    | 2.26    | 2.26    | 2.26    | 2.26    | 2.27    | 2.27    | 2.26    | 2.25    | 2.24    | 2.23    | 2.22    |        |
| 21 <sub>FP</sub>   | Input  | Measured Household - Population                                    | 000's | 286.05                | 328.94  | 367.71  | 404.09  | 439.63  | 474.04  | 508.26  | 542.98  | 576.88  | 610.70  | 645.09  | 678.80  | 711.70  | 743.48  | 777.83  | 814.55  | 851.66  | 887.51  | 924.14  | 957.74  | 990.50  | 1021.36 | 1052.64 | 1090.80 | 1129.03 | 1166.98 | 1204.77 | 1242.02 | 1278.82 |        |
| 22 <sub>FP</sub>   | Input  | Measured Household - Properties                                    | 000's | 161.20                | 185.84  | 208.52  | 229.55  | 249.89  | 269.53  | 289.06  | 308.79  | 328.33  | 347.61  | 367.14  | 386.32  | 405.09  | 423.31  | 441.58  | 460.00  | 478.50  | 496.30  | 514.36  | 530.91  | 546.97  | 562.04  | 577.21  | 595.44  | 613.55  | 631.43  | 649.20  | 666.68  | 683.91  |        |
| 23 <sub>FP</sub>   | 21 <sub>FP</sub> /22 <sub>FP</sub>   | Measured Household - Occupancy Rate                                | h/pr  | 1.77                  | 1.77    | 1.76    | 1.76    | 1.76    | 1.76    | 1.76    | 1.76    | 1.76    | 1.76    | 1.76    | 1.76    | 1.76    | 1.76    | 1.76    | 1.77    | 1.78    | 1.79    | 1.80    | 1.81    | 1.82    | 1.82    | 1.83    | 1.84    | 1.85    | 1.86    | 1.86    | 1.87    |         |        |
| 24 <sub>FP</sub>   | Input  | Unmeasured Non Household - Population                              | 000's | 7.20                  | 7.27    | 7.32    | 7.39    | 7.45    | 7.51    | 7.55    | 7.59    | 7.64    | 7.71    | 7.77    | 7.85    | 7.93    | 8.00    | 8.06    | 8.16    | 8.30    | 8.46    | 8.60    | 8.74    | 8.88    | 9.05    | 9.22    | 9.40    | 9.57    | 9.75    | 9.92    | 10.09   | 10.27   |        |
| 25 <sub>FP</sub>   | Input  | Unmeasured Non Household - Properties                              | 000's | 9.74                  | 9.15    | 8.56    | 7.96    | 7.61    | 7.51    | 7.41    | 7.32    | 7.22    | 7.12    | 7.02    | 6.92    | 6.82    | 6.72    | 6.63    | 6.53    | 6.43    | 6.33    | 6.23    | 6.13    | 6.03    | 5.94    | 5.84    | 5.74    | 5.64    | 5.54    | 5.44    | 5.34    | 5.25    |        |
| 26 <sub>FP</sub>   | Input  | Measured Non Household - Population                                | 000's | 38.87                 | 38.19   | 38.46   | 38.81   | 39.16   | 39.45   | 39.69   | 39.89   | 40.15   | 40.49   | 40.83   | 41.22   | 41.68   | 42.03   | 42.37   | 42.86   | 43.62   | 44.42   | 45.19   | 45.90   | 46.63   | 47.54   | 48.45   | 49.37   | 50.28   | 51.20   | 52.12   | 53.03   | 53.95   |        |
| 27 <sub>FP</sub>   | Input  | Measured Non Household - Properties                                | 000's | 51.23                 | 53.58   | 54.59   | 55.62   | 56.45   | 57.00   | 57.46   | 57.87   | 58.29   | 58.81   | 59.37   | 59.97   | 60.65   | 61.30   | 61.88   | 62.54   | 63.49   | 64.64   | 65.80   | 66.89   | 67.96   | 69.16   | 70.48   | 71.81   | 73.14   | 74.47   | 75.79   | 77.12   | 78.45   |        |
| 28 <sub>FP</sub>   | 18 <sub>FP</sub> +21 <sub>FP</sub> +24 <sub>FP</sub> +26 <sub>FP</sub>                                     | Total Population   | 000's | 2505.35               | 2502.05 | 2499.68 | 2497.41 | 2443.18 | 2442.59 | 2442.53 | 2442.44 | 2442.45 | 2443.05 | 2443.80 | 2444.62 | 2445.63 | 2446.41 | 2447.43 | 2451.54 | 2461.37 | 2471.69 | 2481.82 | 2491.54 | 2500.52 | 2508.71 | 2516.84 | 2524.97 | 2533.99 | 2543.02 | 2552.04 | 2561.06 | 2570.09 |        |
| 29 <sub>FP</sub>   | Input  | Void Households  | 000's | 45.14                 | 43.62   | 43.97   | 44.31   | 44.67   | 45.02   | 45.37   | 45.72   | 46.07   | 46.40   | 46.75   | 47.08   | 47.40   | 47.69   | 47.98   | 48.28   | 48.58   | 48.85   | 49.14   | 49.36   | 49.56   | 49.72   | 49.89   | 50.18   | 50.46   | 50.74   | 51.01   | 51.27   | 51.52   |        |
| 30 <sub>FP</sub>   | Input  | Void Non Households  | 000's | 11.28                 | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61   | 12.61  |
| 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 | 1154.29               | 1165.79 | 1174.90 | 1184.04 | 1193.51 | 1202.72 | 1211.73 | 1220.88 | 1229.85 | 1238.66 | 1247.76 | 1256.53 | 1264.97 | 1272.79 | 1280.60 | 1288.65 | 1297.07 | 1304.96 | 1313.13 | 1319.66 | 1325.65 | 1330.75 | 1336.07 | 1344.59 | 1352.98 | 1361.14 | 1369.17 | 1376.90 |         |        |

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 United Utilities  | 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  | 0.76                  | 0.76    | 0.75    | 0.75    | 0.75    | 0.75    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    |  |  |
|                   |                      | to United Utilities and Yorkshire Water                                      | MI/d  |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
|                   |                      | to   | MI/d  |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
|                   |                      | to   | MI/d  |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |

|                          |                           |
|--------------------------|---------------------------|
| Company:                 | <u>NORTHUMBRIAN WATER</u> |
| Resource Zone Name       | <u>KIELDER</u>            |
| Resource Zone Number:    | <u>1 of 3</u>             |
| Planning Scenario Name:  | <u>DRY</u>                |
| Chosen Level of Service: | <u>COMPANY PREFERRED</u>  |

**WRP5: Resource Zone Deployable Output Reconciliation**

| LICENCE NUMBER              | SOURCE NAME                                      | SOURCE TYPE<br>(GW/SW/RES/CONJ. USE) | DRY YEAR<br>DEPLOYABLE OUTPUT<br>(MI/d) | CRITICAL PERIOD<br>DEPLOYABLE OUTPUT<br>(MI/d) | ANNUAL LICENSED QUANTITY<br>(MI/d) |
|-----------------------------|--|--------------------------------------|---|--|------------------------------------|
| <b>Northern Supply Zone</b> |  |                                      |   |  |                                    |
| 1/23/1/1                    | Whittle Dene                                     | SW/Res                               | 118                                     | 95.00  | 181.82                             |
| 1/23/1/3                    | Barrasford                                       | SW                                   |   |  |                                    |
| 1/23/1/2                    | Ovingham   | SW/Res                               | 150                                     | 128.00   | 136.38                             |
|                             | Gunnerton  |                                      | 11                                      | 11.00  |                                    |
|                             | Rochester Byness, Otterburn                      |                                      | 0.332                                   | 0.33   |                                    |
| 1/22/5/013                  | Fontburn   | Res                                  | 19                                      | 11.40  | 30.00                              |
| 1/22/3/008                  | Warkworth  | SW                                   | 42.5                                    | 42.50  | 45.46                              |
| 1/22/3/007                  | Swan Well  | GW)                                  |   |  | 1.14                               |
| 1/22/3/012                  | Tosson   | GW                                   | 2.62                                    | 2.62   | 6.82                               |
| 1/22/5/011                  | Cambo  | GW                                   | 0                                       | 0  | 0.18                               |
| 1/23/1/004                  | Stonehaugh                                       | GW                                   | 0.041                                   | 0.041  | 0.03                               |
| 1/23/2/004                  | Slaggyford                                       | GW                                   | 0.1                                     | 0.1  | 0.06                               |
| 1/23/2/005                  | Allenheads                                       | GW                                   | 0.033                                   | 0.033  | 0.02                               |
| 1/23/2/006                  | Halton Lee Gate                                  | GW                                   | 0                                       | 0  | 0.03                               |
| 1/23/2/202                  | Birchtrees                                       | GW                                   | 0.7                                     | 0.7  | 1.93                               |
| 1/23/2/207                  | Carr Shield / Currick                            | GW                                   | 0                                       | 0  | 0.06                               |
| <b>Central Supply Zone</b>  |  |                                      |   |  |                                    |
| 1/23/4/001                  | Derwent  | Res                                  |   |  | 137.00                             |
| 1/23/4/073                  | Tyne Tees Transfer Aqueduct                      | SW/Res                               |   |  | 60.00                              |
|                             | Derwent (Mosswood WTW)                           |                                      | 152                                     | 145.00   |                                    |
| 1/24/1/034                  | Wear Valley                                      | Res                                  | 34                                      | 34.00  | 97.15                              |
| 1/24/1/075                  | Waskerley Airshaft (annual 1800MI, daily 10MI/d) | SW                                   |   |  | 4.93                               |
|                             | Honeyhill WTW                                    |                                      | 45                                      | 45.00  |                                    |
| 1/23/5/001                  | Cleadon  | GW                                   |   |  | 3.40                               |
| 1/24/5/001                  | Stonygate  | GW                                   |   |  | 4.01                               |
| 1/24/5/035                  | Fulwell  | GW                                   |   |  | 5.01                               |
| 1/25/5/001                  | Seaton   | GW                                   |   |  | 1.01                               |
| 1/25/5/002                  | North Dalton                                     | GW                                   |   |  | 10.23                              |
| 1/25/5/003                  | Thorpe   | GW                                   |   |  | 4.03                               |
| 1/25/5/004                  | Dalton   | GW                                   |   |  | 8.31                               |
| 1/25/5/005                  | Ryhope   | GW                                   |   |  | 3.11                               |
| 1/25/5/006                  | Peterlee   | GW                                   |   |  | 4.55                               |
| 1/25/5/007                  | Hawthorn   | GW                                   |   |  | 4.60                               |
| 1/25/5/008                  | New Winning                                      | GW                                   |   |  | 7.00                               |
| 1/25/5/032                  | Mill Hill  | GW                                   |   |  | 2.34                               |
| 1/25/5/034                  | Burdon   | GW                                   |   |  | 0.90                               |
|                             | Sunderland Ground Water Stations Total           | GW                                   | 44                                      | 44.00  | 58.48                              |
| 1/24/5/034                  | Lumley   | SW                                   | 42                                      | 35.00  | 45.46                              |
| <b>Southern Supply Zone</b> |  |                                      |   |  |                                    |
| 1/25/1/001                  | Lartington                                       | Res                                  | 128                                     | 116.00   | 145.47                             |
| 1/25/2/103 + 1/25/2/104     | Broken Scar                                      | SW                                   |   |  | 245.00                             |
| 1/25/2/127                  | Broken Scar boreholes                            | GW                                   |   |  | 9.10                               |
|                             | Broken Scar WTW                                  |                                      | 180                                     | 180.00   |                                    |
|                             |  |                                      | 969.326                                 |  |                                    |

|                          |                           |
|--------------------------|---------------------------|
| Company:                 | <u>NORTHUMBRIAN WATER</u> |
| Resource Zone Name       | <u>KIELDER</u>            |
| Resource Zone Number:    | <u>1 of 3</u>             |
| Planning Scenario Name:  | <u>DRY</u>                |
| Chosen Level of Service: | <u>COMPANY PREFERRED</u>  |

**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                 | 25.32   | 47.51   | 68.91   | 89.46   | 110.04  | 130.44  | 150.89  | 171.34  | 191.56  | 211.77  | 231.93  | 251.70  | 270.96  | 289.97  | 309.08  | 328.31  | 347.21  | 365.89  | 383.92  | 400.90  | 417.11  | 432.86  | 450.26  | 469.19  | 487.94  | 506.50  | 524.86  | 542.94  |
| 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 | 28.21  | 24.45  | 22.98  | 21.49  | 21.54  | 21.59  | 21.64  | 21.63  | 21.68  | 21.74  | 21.80  | 21.85  | 21.91  | 10.98  | 10.62  | 10.25  | 9.88   | 9.51   | 9.14   | 8.76   | 8.38   | 8.01   | 7.22   | 6.44   | 6.45   | 6.47   | 6.48   | 6.50   |  |
| 6.6  | Input     | Optant annual increase             | Properties | 000's  | 0.00 | 18.35  | 15.87  | 14.88  | 13.89  | 13.89  | 13.89  | 13.89  | 13.89  | 13.89  | 13.89  | 13.89  | 13.89  | 13.89  | 6.94   | 6.69   | 6.45   | 6.20   | 5.95   | 5.70   | 5.45   | 5.21   | 4.96   | 4.46   | 3.97   | 3.97   | 3.97   | 3.97   | 3.97   |  |
| 6.7  | Input     | Optant annual increase             | Occupancy  | h/prop | 0.00 | 1.54   | 1.54   | 1.54   | 1.55   | 1.55   | 1.55   | 1.56   | 1.56   | 1.56   | 1.57   | 1.57   | 1.57   | 1.58   | 1.58   | 1.59   | 1.59   | 1.59   | 1.60   | 1.60   | 1.61   | 1.61   | 1.61   | 1.62   | 1.62   | 1.63   | 1.63   | 1.63   | 1.64   |  |
| 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 | 15.01  | 13.59  | 14.04  | 14.34  | 14.37  | 13.99  | 14.07  | 14.06  | 13.55  | 13.51  | 13.36  | 12.51  | 11.42  | 10.87  | 11.11  | 11.38  | 10.70  | 10.22  | 8.84   | 6.61   | 4.97   | 4.00   | 7.53   | 10.82  | 10.43  | 10.06  | 9.62   | 9.03   |  |
| 6.10 | Input     | New Property annual increase       | Properties | 000's  | 0.00 | 6.98   | 6.31   | 6.52   | 6.67   | 6.69   | 6.52   | 6.56   | 6.56   | 6.34   | 6.33   | 6.27   | 5.88   | 5.38   | 5.12   | 5.23   | 5.35   | 5.02   | 4.79   | 4.14   | 3.10   | 2.33   | 1.87   | 3.51   | 5.04   | 4.86   | 4.68   | 4.47   | 4.19   |  |
| 6.11 | Input     | New Property annual increase       | Occupancy  | h/prop | 0.00 | 2.15   | 2.15   | 2.15   | 2.15   | 2.15   | 2.14   | 2.14   | 2.14   | 2.13   | 2.13   | 2.13   | 2.12   | 2.12   | 2.13   | 2.13   | 2.13   | 2.13   | 2.13   | 2.13   | 2.14   | 2.14   | 2.14   | 2.14   | 2.14   | 2.14   | 2.15   | 2.15   | 2.15   |  |
| 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 | 142.62 | 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   | 0.00   |        |  |
| 6.14 | Input     | Change in OCC annual increase      | Properties | 000's  | 0.00 |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |  |
| 6.15 | Input     | Change in OCC annual increase      | Occupancy  | h/prop | 0.00 |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |  |
| 6.16 | Input     | Change in OCC annual increase      | pcc        | l/h/d  | 0.00 |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |  |
| 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   | 0.00   | 14.73  | 15.27  | 15.81  | 16.36  | 16.90  | 17.44  | 17.99  | 18.54  | 19.08  | 20.16  | 21.24  | 21.26  | 21.28  | 21.30  | 21.32  |  |
| 6.18 | Input     | Selected annual increase           | Properties | 000's  |      |        |        |        |        |        |        |        |        |        |        |        |        |        | 6.94   | 7.19   | 7.44   | 7.69   | 7.93   | 8.18   | 8.43   | 8.68   | 8.93   | 9.42   | 9.92   | 9.92   | 9.92   | 9.92   | 9.92   |  |
| 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   | 2.14   | 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   | 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>KIELDER</u>            |
| Resource Zone Number:    | <u>1 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  | 23.10                 | 22.37   | 22.65   | 22.56   | 22.57   | 22.61   | 22.67   | 22.74   | 22.81   | 22.88   | 22.95   | 23.03   | 23.11   | 23.19   | 23.28   |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
| 8.2     | Input      | Food, drink and tobacco     |                | MI/d  | 9.80                  | 9.88    | 10.52   | 11.09   | 11.76   | 12.50   | 13.32   | 14.20   | 15.14   | 16.16   | 17.25   | 18.43   | 19.69   | 21.04   | 22.50   |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
| 8.3     | Input      | Chemicals and oil refining  |                | MI/d  | 19.79                 | 18.15   | 17.23   | 16.06   | 15.03   | 14.10   | 13.25   | 12.48   | 11.76   | 11.11   | 10.51   | 9.96    | 9.45    | 8.99    | 8.57    |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
| 8.4     | Input      | Other manufacturing         |                | MI/d  | 4.15                  | 3.95    | 3.95    | 3.89    | 3.86    | 3.83    | 3.80    | 3.78    | 3.76    | 3.74    | 3.72    | 3.70    | 3.68    | 3.66    | 3.65    |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
| 8.5     | Input      | Public services             |                | MI/d  | 10.26                 | 9.59    | 9.63    | 9.60    | 9.64    | 9.72    | 9.81    | 9.91    | 10.02   | 10.12   | 10.23   | 10.34   | 10.45   | 10.57   | 10.68   |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
| 8.6     | Input      | Other sectors               |                | MI/d  | 30.61                 | 29.90   | 30.75   | 31.12   | 31.62   | 32.16   | 32.73   | 33.32   | 33.92   | 34.53   | 35.15   | 35.78   | 36.43   | 37.08   | 37.75   |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
| 8.7     | Input      | Unallocated                 |                | MI/d  | 77.50                 | 74.61   | 75.38   | 75.15   | 75.33   | 75.66   | 76.04   | 76.45   | 76.88   | 77.30   | 77.72   | 78.14   | 78.55   | 78.98   | 79.40   |         |         |         |         |         |         |         |         |         |         |         |         |         |  |  |
| 8.8     | Input      | Total                       |                | MI/d  | 175.20                | 168.44  | 170.11  | 169.47  | 169.80  | 170.59  | 171.63  | 172.87  | 174.29  | 175.84  | 177.53  | 179.37  | 181.36  | 183.51  | 185.83  | 187.69  | 189.57  | 191.47  | 193.38  | 195.32  | 197.27  | 199.25  | 201.24  | 203.26  | 205.29  | 207.35  | 209.42  | 211.52  |  |  |
| 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>KIELDER</u>            |
| Resource Zone Number:    | <u>1 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   | 49.00                 | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   | 49.00   |  |
| 5 <sub>N</sub>  | Input   | Water Available For Use (own sources)      | MI/d   | 920.33                | 920.33  | 920.33  | 920.33  | 920.33  | 920.33  | 920.33  | 920.33  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  | 919.13  |  |
| <b>RAW WATER NORMAL YEAR</b>                          |   |  |        |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |
| 6 <sub>N</sub>  | Input   | Raw Water Abstracted                       | MI/d   | 745.10                | 748.35  | 747.68  | 747.53  | 726.87  | 728.58  | 729.20  | 729.60  | 730.16  | 730.97  | 731.99  | 733.18  | 734.50  | 735.96  | 737.69  | 739.36  | 742.00  | 744.70  | 747.69  | 750.71  | 753.70  | 756.59  | 759.53  | 762.71  | 766.07  | 769.48  | 773.61  | 777.81  | 782.10  |  |
| 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   | 4.61                  | 4.67    | 4.73    | 4.79    | 4.85    | 4.91    | 4.96    | 5.02    | 5.08    | 5.14    | 5.20    | 5.26    | 5.31    | 5.37    | 5.43    | 5.49    | 5.55    | 5.61    | 5.67    | 5.72    | 5.78    | 5.84    | 5.90    | 5.96    | 6.02    | 6.07    | 6.13    | 6.19    | 6.25    |  |
| 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    | 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   | 41.57                 | 41.74   | 41.24   | 41.21   | 40.93   | 41.01   | 41.10   | 41.21   | 41.33   | 41.46   | 41.60   | 41.75   | 41.90   | 42.07   | 42.20   | 42.23   | 42.26   | 42.27   | 42.28   | 42.28   | 42.27   | 42.26   | 42.25   | 42.27   | 42.35   | 42.42   | 42.49   | 42.56   | 42.62   |  |
| 12 <sub>N</sub>                                       | Input   | Potable Water Imported                     | MI/d   | 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    | 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    | 0.03    | 0.03    | 0.03    |  |
| 13 <sub>N</sub>                                       | Input   | Potable Water Exported                     | MI/d   | 0.76                  | 0.76    | 0.75    | 0.75    | 0.75    | 0.75    | 0.75    | 0.75    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    | 0.51    |  |
| 14 <sub>N</sub>                                       | Input   | Distribution Input                         | MI/d   | 716.79                | 719.90  | 719.26  | 719.11  | 699.24  | 700.89  | 701.48  | 701.87  | 702.41  | 703.19  | 704.16  | 705.31  | 706.58  | 707.99  | 709.65  | 711.26  | 713.79  | 716.39  | 719.27  | 722.17  | 725.05  | 727.83  | 730.66  | 733.72  | 736.95  | 740.23  | 744.20  | 748.25  | 752.38  |  |
| 15 <sub>N</sub>                                       | Input   | Distribution Losses                        | MI/d   | 93.39                 | 102.30  | 100.89  | 100.94  | 86.37   | 86.38   | 86.39   | 86.41   | 86.42   | 86.45   | 86.46   | 86.48   | 86.51   | 86.56   | 86.61   | 86.67   | 86.72   | 86.78   | 86.83   | 86.93   | 87.04   | 87.17   | 87.30   | 87.35   | 87.40   | 87.47   | 87.53   | 87.60   | 87.68   |  |
| 16 <sub>N</sub>                                       | Input   | Distribution System Operational Use        | MI/d   | 12.09                 | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   | 12.09   |  |
| 17 <sub>N</sub>                                       | 14 <sub>N</sub> -15 <sub>N</sub> -16 <sub>N</sub> | Water Delivered                            | MI/d   | 611.31                | 605.51  | 606.28  | 606.08  | 600.79  | 602.42  | 603.00  | 603.37  | 603.89  | 604.65  | 605.61  | 606.73  | 607.98  | 609.34  | 610.95  | 612.50  | 614.98  | 617.52  | 620.35  | 623.15  | 625.92  | 628.56  | 631.27  | 634.28  | 637.45  | 640.67  | 644.58  | 648.55  | 652.61  |  |
| <b>POTABLE WATER DELIVERED NORMAL YEAR</b>            |   |  |        |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |
| 32 <sub>N</sub>                                       | Input   | Water Taken Unbilled                       | MI/d   | 12.12                 | 12.11   | 12.11   | 12.11   | 12.11   | 12.11   | 12.11   | 12.11   | 12.11   | 12.11   | 12.11   | 12.11   | 12.11   | 12.11   | 12.11   | 12.11   | 12.11   | 12.11   | 12.11   | 12.11   | 12.11   | 12.11   | 12.11   | 12.11   | 12.11   | 12.11   | 12.11   | 12.11   | 12.11   |  |
| 33 <sub>N</sub>                                       | Input   | Water Delivered Unmeasured Household       | MI/d   | 371.63                | 365.48  | 358.79  | 353.75  | 342.48  | 337.79  | 332.02  | 325.78  | 319.66  | 313.64  | 307.60  | 301.66  | 295.84  | 290.15  | 284.19  | 278.33  | 273.32  | 268.56  | 263.88  | 259.63  | 255.43  | 251.37  | 247.26  | 242.29  | 237.44  | 232.63  | 228.23  | 223.90  | 219.64  |  |
| 34 <sub>N</sub>                                       | Input   | Unmeasured Household - USPL                | MI/d   | 41.46                 | 40.75   | 40.08   | 39.48   | 38.92   | 38.39   | 37.86   | 37.33   | 36.80   | 36.26   | 35.73   | 35.20   | 34.67   | 34.14   | 33.60   | 33.07   | 32.54   | 32.01   | 31.48   | 30.95   | 30.41   | 29.88   | 29.35   | 28.82   | 28.29   | 27.75   | 27.22   | 26.69   | 26.16   |  |
| 35 <sub>N</sub>                                       | 33 <sub>N</sub> -34 <sub>N</sub>                  | Unmeasured Household - Consumption         | MI/d   | 330.18                | 324.73  | 318.72  | 314.27  | 303.56  | 299.40  | 294.16  | 288.45  | 282.86  | 277.37  | 271.86  | 266.46  | 261.17  | 256.01  | 250.99  | 245.25  | 240.78  | 236.55  | 232.41  | 228.68  | 225.01  | 221.48  | 217.91  | 213.47  | 209.15  | 204.87  | 201.01  | 197.21  | 193.49  |  |
| 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   | 44.47                 | 51.60   | 57.92   | 63.91   | 69.87   | 75.51   | 80.91   | 86.37   | 91.71   | 97.03   | 102.44  | 107.74  | 112.91  | 117.91  | 123.25  | 128.90  | 134.61  | 140.10  | 145.78  | 151.00  | 156.11  | 160.93  | 165.84  | 171.89  | 177.98  | 184.04  | 190.37  | 196.66  | 202.95  |  |
| 38 <sub>N</sub>                                       | Input   | Measured Household - USPL                  | MI/d   | 4.43                  | 5.19    | 5.76    | 6.29    | 6.81    | 7.30    | 7.79    | 8.29    | 8.78    | 9.27    | 9.76    | 10.25   | 10.72   | 11.18   | 11.64   | 12.09   | 12.54   | 12.98   | 13.42   | 13.82   | 14.21   | 14.58   | 14.95   | 15.39   | 15.83   | 16.26   | 16.69   | 17.11   | 17.52   |  |
| 39 <sub>N</sub>                                       | 37 <sub>N</sub> -38 <sub>N</sub>                  | Measured Household - Consumption           | MI/d   | 40.04                 | 46.41   | 52.15   | 57.62   | 63.07   | 68.21   | 73.12   | 78.08   | 82.92   | 87.76   | 92.67   | 97.49   | 102.19  | 106.72  | 111.61  | 116.81  | 122.07  | 127.13  | 132.37  | 137.18  | 141.89  | 146.35  | 150.89  | 156.50  | 162.15  | 167.78  | 173.68  | 179.56  | 185.42  |  |
| 40 <sub>N</sub>                                       | Input   | Measured Household - PCC                   | l/h/d  | 139.98                | 141.10  | 141.83  | 142.59  | 143.45  | 143.89  | 143.87  | 143.80  | 143.74  | 143.70  | 143.66  | 143.63  | 143.59  | 143.55  | 143.49  | 143.41  | 143.33  | 143.24  | 143.23  | 143.26  | 143.29  | 143.34  | 143.48  | 143.62  | 143.77  | 144.16  | 144.57  | 144.99  |         |  |
| 41 <sub>N</sub>                                       | Input   | Water Delivered Unmeasured Non Household   | MI/d   | 7.89                  | 7.42    | 6.95    | 6.47    | 6.19    | 6.12    | 6.05    | 5.98    | 5.90    | 5.83    | 5.75    | 5.68    | 5.61    | 5.53    | 5.46    | 5.38    | 5.31    | 5.23    | 5.16    | 5.08    | 5.01    | 4.93    | 4.86    | 4.78    | 4.70    | 4.63    | 4.55    | 4.47    | 4.39    |  |
| 42 <sub>N</sub>                                       | Input   | Unmeasured Non Household - USPL            | MI/d   | 0.46                  | 0.43    | 0.40    | 0.37    | 0.36    | 0.35    | 0.35    | 0.34    | 0.33    | 0.33    | 0.33    | 0.32    | 0.32    | 0.31    | 0.31    | 0.30    | 0.30    | 0.29    | 0.29    | 0.28    | 0.28    | 0.27    | 0.27    | 0.27    | 0.26    | 0.26    | 0.25    | 0.25    |         |  |
| 43 <sub>N</sub>                                       | 41 <sub>N</sub> -42 <sub>N</sub>                  | Unmeasured Non Household - Consumption     | MI/d   | 7.43                  | 6.99    | 6.54    | 6.09    | 5.84    | 5.77    | 5.70    | 5.63    | 5.56    | 5.49    | 5.42    | 5.36    | 5.29    | 5.22    | 5.15    | 5.08    | 5.01    | 4.94    | 4.87    | 4.79    | 4.72    | 4.65    | 4.58    | 4.51    | 4.44    | 4.37    | 4.29    | 4.22    | 4.14    |  |
| 44 <sub>N</sub>                                       | Input   | Water Delivered Measured Non Household     | MI/d   | 175.20                | 168.44  | 170.11  | 169.47  | 169.80  | 170.59  | 171.63  | 172.87  | 174.29  | 175.84  | 177.53  | 179.37  | 181.36  | 183.51  | 185.83  | 187.69  | 189.57  | 191.47  | 193.38  | 195.32  | 197.27  | 199.25  | 201.24  | 203.26  | 205.29  | 207.35  | 209.42  | 211.52  | 213.64  |  |
| 45 <sub>N</sub>                                       | Input   | Measured Non Household - USPL              | MI/d   | 1.22                  | 1.28    | 1.30    | 1.33    | 1.34    | 1.36    | 1.37    | 1.38    | 1.39    | 1.40    | 1.41    | 1.43    | 1.44    | 1.46    | 1.47    | 1.49    | 1.51    | 1.54    | 1.57    | 1.59    | 1.62    | 1.65    | 1.68    | 1.71    | 1.74    | 1.77    | 1.81    | 1.84    | 1.87    |  |
| 46 <sub>N</sub>                                       | 44 <sub>N</sub> -45 <sub>N</sub>                  | Measured Non Household - Consumption       | MI/d   | 173.98                | 167.17  | 168.81  | 168.15  | 168.46  | 169.23  | 170.26  | 171.49  | 172.90  | 174.44  | 176.11  | 177.94  | 179.92  | 182.05  | 184.36  | 186.20  | 188.06  | 189.93  | 191.82  | 193.73  | 195.66  | 197.60  | 199.56  | 201.55  | 203.55  | 205.57  | 207.62  | 209.68  | 211.77  |  |
| 47 <sub>N</sub>                                       | Input   | Void Properties - USPL                     | MI/d   | 2.68                  | 2.67    | 2.69    | 2.71    | 2.72    | 2.74    | 2.76    | 2.77    | 2.79    | 2.81    | 2.82    | 2.84    | 2.85    | 2.87    | 2.88    | 2.90    | 2.91    | 2.92    | 2.94    | 2.95    | 2.96    | 2.96    | 2.97    | 2.99    | 3.00    | 3.01    | 3.03    | 3.04    | 3.05    |  |
| <b>LEAKAGE NORMAL YEAR</b>                            |   |  |        |                       |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |  |
| 48 <sub>N</sub>                                       | Input   | Total Leakage                              | MI/d   | 143.61                | 152.60  | 151.10  | 151.10  | 141.90  | 140.10  | 138.30  | 136.50  | 136.50  | 136.50  | 136.50  | 136.50  | 136.50  | 136.50  | 136.50  | 136.50  | 136.50  | 136.50  | 136.50  | 136.50  | 136.50  | 136.50  | 136.50  | 136.50  | 136.50  | 136.50  | 136.50  | 136.50  |         |  |
| 49 <sub>N</sub>                                       | Input   | Total Leakage                              | l/pr/d | 124.41                | 130.90  | 128.61  | 127.61  | 118.89  | 116.49  | 114.13  | 111.80  | 110.99  | 110.20  | 109.40  | 108.63  | 107.91  | 107.24  | 106.59  | 105.92  | 105.24  | 104.60  | 103.95  | 103.44  | 102.97  | 102.57  | 102.17  | 101.52  | 100.89  | 100.28  | 99.70   |         |         |  |