

# Part G Water Efficiency Calculation

Hempton Road - Plot 18

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Burrington Estates



# Water Use Assessment Calculation Report

Certificate Ref: BE44581911

Issued: 20 January 2022

Client: Burrington Estates

Project Details: Hempton Road - Plot 18

Performance Target: 110 (litres / person / day)

*Building Regulations Part G - 110l*

Number of Bedrooms: 3

Occupancy for Calculation Purposes: 4

| Installation Type                         | Unit           | Capacity/<br>Flow Rate | Use Factor | Fixed use<br>(l/p/day) | Total Use<br>(l/p/day) |
|---|----------------|------------------------|------------|------------------------|------------------------|
| WC Single Flush                           | Volume (l)     | 0.00                   | 4.42       | 0.00                   | 0.00                   |
| WC Dual Flush                             | Full Flush (l) | 0.00                   | 1.46       | 0.00                   | 0.00                   |
|   | Pt Flush (l)   | 0.00                   | 2.96       | 0.00                   | 0.00                   |
| WC's (Multiple)                           | Volume (l)     | 4.00                   | 4.42       | 0.00                   | 17.68                  |
| Taps Exc. Kitchen                         | Flow Rate      | 5.00                   | 1.58       | 1.58                   | 9.48                   |
| Bath (shower present)                     | (l/s)          | 156.00                 | 0.11       | 0.00                   | 17.16                  |
| Shower (bath present)                     | (l/s)          | 8.00                   | 4.37       | 0.00                   | 34.96                  |
| Bath Only                                 | (l)            | 0.00                   | 0.50       | 0.00                   | 0.00                   |
| Shower Only                               | (l/s)          | 0.00                   | 5.60       | 0.00                   | 0.00                   |
| Kitchen Taps                              | (l/s)          | 10.20                  | 0.44       | 10.36                  | 14.85                  |
| Washing Machines                          | (l/kgdry)      | 7.43                   | 2.10       | 0.00                   | 15.60                  |
| Dishwashers                               | (l/place)      | 0.98                   | 3.60       | 0.00                   | 3.53                   |
| Waste Disposal                            | (l/s)          | 0.00                   | 3.08       | 0.00                   | 0.00                   |
| Water Softener                            | (l/s)          | 0.00                   | 1.00       | 0.00                   | 0.00                   |
| Total Calculated Water Use (l/p/day)      |                |                        |            |                        | 113.26                 |
| Grey/Rainwater Reused (l)                 |                |                        |            |                        | 0.00                   |
| Normalisation Factor                      |                |                        |            |                        | 0.91                   |
| External Water Use Allowance (l)          |                |                        |            |                        | 5.00                   |
| <b>Total Consumption Part G (l/p/day)</b> |                |                        |            |                        | <b>108.07</b>          |

Part G Reg Assessment Result

Pass ✓

The calculation methodology uses the water consumption figures provided from manufacturers' product details. Where details have not been provided, assumed figures have been used to achieve compliance. These must be met in order to satisfy the Part G Calculation for Hempton Road - Plot 18. The calculation methodology is to be used to assess compliance against the water performance targets in Regulation 36. It is not a design tool for water supply and drainage systems. It is also not capable of calculating the actual potable water consumption of a new dwelling. Behaviour and changing behaviour can also have an effect on the amount of potable water used throughout a home.

## Appliance/Usage Details

### Taps (Excluding Kitchen Taps)

| Tap Fitting Type            | Flow Rate<br>Litres/Min | Quantity<br>(No.) | Total per<br>Fitting type |
|-----------------------------|-------------------------|-------------------|---------------------------|
| Bathroom sink mixer taps    | 5                       | 2                 | 10.00                     |
|                             |                         |                   | 0.00                      |
|                             |                         |                   | 0.00                      |
|                             |                         |                   | 0.00                      |
|                             |                         |                   | 0.00                      |
|                             |                         |                   | 0.00                      |
| Total No. of Fittings (No.) |                         |                   | 2                         |
| Total Flow (l/s)            |                         |                   | 10.00                     |
| Maximum Flow (l/s)          |                         |                   | 5.00                      |
| Average Flow (l/s)          |                         |                   | 5.00                      |
| Weighted Average Flow (l/s) |                         |                   | 3.50                      |
| Flow for Calculation (l/s)  |                         |                   | 5.00                      |

### Showers

| Shower fitting<br>Type      | Flow Rate<br>Litres/Min | Quantity<br>(No.) | Total per<br>Fitting type |
|-----------------------------|-------------------------|-------------------|---------------------------|
| Shower above bath           | 8                       | 1                 | 8.00                      |
| Shower                      | 8                       | 0                 | 0.00                      |
|                             |                         |                   | 0.00                      |
|                             |                         |                   | 0.00                      |
|                             |                         |                   | 0.00                      |
|                             |                         |                   | 0.00                      |
| Total No. of Fittings (No.) |                         |                   | 1                         |
| Total Flow (l/s)            |                         |                   | 8.00                      |
| Maximum Flow (l/s)          |                         |                   | 8.00                      |
| Average Flow (l/s)          |                         |                   | 8.00                      |
| Weighted Average Flow (l/s) |                         |                   | 5.60                      |
| Flow for Calculation (l/s)  |                         |                   | 8.00                      |

### Baths

| Bath Type                     | Capacity to<br>Overflow | Quantity<br>(No.) | Total per<br>Fitting type |
|-------------------------------|-------------------------|-------------------|---------------------------|
| Bath                          | 156                     | 1                 | 156.00                    |
|                               |                         |                   | 0.00                      |
|                               |                         |                   | 0.00                      |
| Total No. of Fittings (No.)   |                         |                   | 1                         |
| Total Capacity (l)            |                         |                   | 156.00                    |
| Maximum Capacity (l)          |                         |                   | 156.00                    |
| Average Capacity (l)          |                         |                   | 156.00                    |
| Weighted Average Capacity (l) |                         |                   | 109.20                    |
| Capacity for Calculation (l)  |                         |                   | 156.00                    |

### WCs

| WC Type                           | Full Flush<br>Volume | Part Flush<br>Volume | Quantity (No) |
|-----------------------------------|----------------------|----------------------|---------------|
| Dual flush toilet                 | 6                    | 3                    | 2             |
|                                   |                      |                      |               |
|                                   |                      |                      |               |
| Total number of fittings          |                      |                      | 2             |
| Average effective flushing volume |                      |                      | 4.00          |

### Dishwashers

| Dishwasher Type                   | L per Place<br>Setting | Quantity<br>(No.) | Total per<br>Fitting type |
|-----------------------------------|------------------------|-------------------|---------------------------|
| Dishwasher                        | 0.98                   | 1                 | 0.98                      |
|                                   |                        |                   | 0.00                      |
| Total No. of Fittings (No.)       |                        |                   | 1                         |
| Total Consumption (l)             |                        |                   | 0.98                      |
| Maximum Consumption (l)           |                        |                   | 0.98                      |
| Average Consumption (l/s)         |                        |                   | 0.98                      |
| Weighted Average Consumption (l)  |                        |                   | 0.69                      |
| Consumption for Calculation (l/s) |                        |                   | 0.98                      |

### Washing Machines

| Washing Machine<br>Type           | L per Kg<br>Dry Load | Quantity<br>(No.) | Total per<br>Fitting type |
|-----------------------------------|----------------------|-------------------|---------------------------|
| Washing Machine                   | 7.43                 | 1                 | 7.43                      |
|                                   |                      |                   | 0.00                      |
| Total No. of Fittings (No.)       |                      |                   | 1                         |
| Total Consumption (l)             |                      |                   | 7.43                      |
| Maximum Consumption (l)           |                      |                   | 7.43                      |
| Average Consumption (l/s)         |                      |                   | 7.43                      |
| Weighted Average Consumption (l)  |                      |                   | 5.20                      |
| Consumption for Calculation (l/s) |                      |                   | 7.43                      |

### Kitchen Taps

| Tap Fitting Type            | Flow Rate<br>Litres/Min | Quantity<br>(No.) | Total per<br>Fitting type |
|-----------------------------|-------------------------|-------------------|---------------------------|
| Kitchen Tap                 | 10.2                    | 1                 | 10.20                     |
|                             |                         |                   | 0.00                      |
|                             |                         |                   | 0.00                      |
| Total No. of Fittings (No.) |                         |                   | 1                         |
| Total Flow (l/s)            |                         |                   | 10.20                     |
| Maximum Flow (l/s)          |                         |                   | 10.20                     |
| Average Flow (l/s)          |                         |                   | 10.20                     |
| Weighted Average Flow (l/s) |                         |                   | 7.14                      |
| Flow for Calculation (l/s)  |                         |                   | 10.20                     |

### Other Fittings

|                          |      |
|--------------------------|------|
| Waste Disposal Y/N       | N    |
| Water softener           |      |
| Consumption beyond 4% l/ | 0.00 |

### Use of grey water and harvested rainwater

|                                       |        |
|---------------------------------------|--------|
| Total Grey water from WHB taps (l)    | 0.00   |
| Total Available Grey Water Supply (l) | 208.48 |
| Possible Demand (l)                   | 133.13 |
| Grey/Rain Installed Capacity (l)      | 0.00   |
| Figure for Calculation lit/person/day | 0.00   |



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