



Your sustainable partner

**POST-PLANNING (SIMPLE CALC)  
WATER EFFICIENCY  
CALCULATION REPORT**

FOR

**SHOREWOOD HOMES**

AT

**PLOT 4  
LARG DRIVE  
WINCHESTER  
HAMPSHIRE**

## 1. Executive Summary

This report has been produced by BEAT Solutions Ltd on 12th February 2024 for Shorewood Homes to demonstrate for planning purposes that the predicted water usage for the dwelling will be 109.7 litres/person/day.

## 2. Introduction

BEAT Solutions have been instructed to calculate the predicted water usage for the dwelling using maximum flow rates and capacities detailed within this report. This report has been produced by Sophie Pinnick

The methodology used to calculate the water usage is the national approved BRE water efficiency calculation procedure.

A copy of this report should be submitted to the Local Planning Authority for conditional approval.

## 3. Predicted Water Fittings Specification

Shorewood Homes has completed a schedule to confirm the water usage fixtures and fittings. Using this information BEAT Solutions have been able to calculate the overall water usage. Enclosed is a copy of the completed schedule provided by Shorewood Homes.

## 4. Compliance Summary

BEAT Solutions Ltd received from the client sufficient information to enable the internal water usage to be calculated. The client confirmed the required target water usage as below. The schedule below confirms the following:-

Plot Type:	Detached House
Targeted Water Usage:	110.0 litres/person/day
<b>Predicted Water Usage:</b>	<b>109.7 litres/person/day</b>
Building Reg Compliant:	Yes
Planning Requirement:	110.0 litres/person/day
Planning Compliant:	Yes

**PREDICTED SCHEDULE OF WATER FIXTURES & FITTINGS**

<b>Plot / Address</b>	Plot 4, Larg Drive, Winchester, Hampshire, ,			<b>Our Reference</b>	WAT-0521/PLOT 4	
<b>No. of Bedrooms</b>	4	<b>Plot/House No.</b>	Plot 4	<b>Plot Type</b>	Detached House	
				<b>Occupancy rate for Calculation Purposes</b>		5

  

<b>Basin Taps</b>	<b>Flow Rate</b>	<b>Quantity</b>	<b>Showers</b>	<b>Flow Rate</b>	<b>Quantity</b>
<b>Fitting Type</b>	<b>Litres/Min</b>	<b>(No.)</b>	<b>Fitting Type</b>	<b>Litres/Min</b>	<b>(No.)</b>
Flow Rate Not to Exceed (5l/min)	5.00	4	Flow Rate Not to Exceed (7l/	7.00	3
<b>Total No. of Fittings (No.)</b>	<b>4</b>		<b>Total No. of Fittings (No.)</b>	<b>3</b>	
<b>Total Flow (l/m)</b>	20.00		<b>Total Flow (l/m)</b>	21.00	
<b>Maximum Flow (l/m)</b>	5.00		<b>Maximum Flow (l/m)</b>	7.00	
<b>Average Flow (l/m)</b>	5.00		<b>Average Flow (l/m)</b>	7.00	
<b>Weighted Average Flow (l/m)</b>	3.50		<b>Weighted Average Flow (l/m)</b>	4.90	
<b>Flow for Calculation (l/m)</b>	<b>5.00</b>		<b>Flow for Calculation (l/m)</b>	<b>7.00</b>	

  

<b>Bath</b>	<b>Capacity to</b>	<b>Quantity</b>	<b>W/C</b>	<b>Full Flush</b>	<b>Part Flush</b>	
<b>Type</b>	<b>Overflow</b>	<b>(No.)</b>	<b>Type</b>	<b>Volume</b>	<b>Volume</b>	<b>Quantity (No)</b>
Capacity Not to Exceed (190L)	190.00	1	Flow Rate Not to Exceed (6/3	6.00	3.00	4
<b>Total No. of Fittings (No.)</b>	<b>1</b>		<b>Total number of fittings</b>	<b>4</b>		
<b>Total Capacity (l)</b>	190.00		<b>Average effective flushing volume</b>	<b>3.99</b>		
<b>Maximum Capacity (l)</b>	190.00					
<b>Average Capacity (l)</b>	190.00					
<b>Weighted Average Capacity (l)</b>	133.00					
<b>Capacity for Calculation (l)</b>	<b>190.00</b>					

  

<b>Dishwasher</b>	<b>L per Place</b>	<b>Quantity</b>	<b>Washing Machine</b>	<b>L per Kg</b>	<b>Quantity</b>
<b>Type</b>	<b>Setting</b>	<b>(No.)</b>	<b>Type</b>	<b>Dry Load</b>	<b>(No.)</b>
l/p/s			(l/kg)		
<b>Total No. of Fittings (No.)</b>	<b>0</b>		<b>Total No. of Fittings (No.)</b>	<b>0</b>	
<b>Total Consumption (l)</b>	1.25		<b>Total Consumption (l)</b>	8.17	
<b>Maximum Consumption (l)</b>	1.25		<b>Maximum Consumption (l)</b>	8.17	
<b>Average Consumption (l/m)</b>	1.25		<b>Average Consumption (l/m)</b>	8.17	
<b>Weighted Average Consumption (l)</b>	0.88		<b>Weighted Average Consumption (l)</b>	5.72	
<b>Consumption for Calculation (l/m)</b>	<b>1.25</b>		<b>Consumption for Calculation (l/m)</b>	<b>8.17</b>	

  

<b>Kitchen &amp; Utility Taps</b>	<b>Flow Rate</b>	<b>Quantity</b>	<b>Waste Disposal Y/N</b>
<b>Type</b>	<b>Litres/Min</b>	<b>(No.)</b>	
Flow Rate Not to Exceed (10l/min)	10.00	4	N
<b>Total No. of Fittings (No.)</b>	<b>4</b>		<b>Water Softner</b>
<b>Total Flow (l/m)</b>	40.00		<b>Consumption beyond 4% l/p/d</b>
<b>Maximum Flow (l/m)</b>	10.00		
<b>Average Flow (l/m)</b>	10.00		
<b>Weighted Average Flow (l/m)</b>	7.00		
<b>Flow for Calculation (l/m)</b>	<b>10.00</b>		

  

<b>Grey water and harvested rainwater</b>	
<b>Total Grey water from WHB taps (l)</b>	
<b>Total Available Grey Water Supply (l)</b>	257.45
<b>Possible Demand (l)</b>	173.96
<b>Grey/Rain Installed Capacity (l)</b>	
<b>Figure for Calculation lit/person/day</b>	0.00

## PREDICTED WATER EFFICIENCY CALCULATION

### Water Use Assessment

Installation Type	Unit	Capacity/ Flow Rate	Use Factor	Fixed use (l/p/day)	Total Use (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)	3.99	4.42	0.00	17.64
Taps Exc. Kitchen	Flow Rate	5.00	1.58	1.58	9.48
Bath (shower present)	(l/s)	190.00	0.11	0.00	20.90
Shower (bath present)	(l/s)	7.00	4.37	0.00	30.59
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)	10.00	0.44	10.36	14.76
Washing Machines	(l/kgdry)	8.17	2.10	0.00	17.16
Dishwashers	(l/place)	1.25	3.60	0.00	4.50
Waste Disposal	(l/s)	0.00	3.08	0.00	0.00
Water Softner	(l/s)	0.00	1.00	0.00	0.00
<b>Total Calculated Water Use (l/p/day)</b>					<b>115.0</b>
<b>Grey/RainWater Reused (l)</b>					<b>0.0</b>
<b>Normalisation Factor</b>					<b>0.91</b>
<b>Total Consumption CSH (l/p/day)</b>					<b>104.7</b>
<b>External Water Use Allowance (l)</b>					<b>5.0</b>
<b>Total Consumption Part G (l/p/day)</b>					<b>109.7</b>
<b>Assesment Result</b>					<b>PASS</b>

&lt;&lt; Note - these are default values.

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