

# Water Efficiency Calculations

Building Regulations Part G



Date: 24 May 2016  
Quote No: SJTA1456

Dear Sir / Madam

**Re: Flat 3**  
**Tapping the Admiral, Castle Road, Camden, NW1 8SU**

By following the Government's national calculation methodology for assessing water efficiency in new dwellings this 2 bed dwelling, as designed, achieves a water consumption of 124.9 litres per person per day.

Compliance with Building Regulation 17.K has been demonstrated.

The values shown are maximum design values at a pressure of  $3\pm 0.2$  bar, and should not be exceeded without compensatory changes made elsewhere or consideration given to rainwater option.

It may be necessary to install flow limiters to achieve required flow rates.

Key elements of the design include:

No special features

**Please note:**

- Bath taps are exempt from the calculation.
- If any part of this is incorrect then please let me know as amendments can be made.

Yours Sincerely



James Rivers

## Building Regulations Part G Summary

<u>Type</u>	<u>Location</u>	<u>Required flow Rates, Volume</u>	<u>Qty</u>
Taps	Bathroom	6 litres/min	1
Taps	Bathroom 2	6 litres/min	1
Bath (s)	Bathroom	185 litres to overflow	1
Bath (s)	Bathroom 2	185 litres to overflow	1
Dishwasher	Kitchen	1.25 litres/place	1
Washing Machine	Kitchen	8.17 litres/kg	1
Shower	Bathroom	11 litres/min	1
Shower	Bathroom 2	11 litres/min	1
WC's 'Dual Flush'	Bathroom	6 / 3 litres to flush vol.	1
WC's 'Dual Flush'	Bathroom 2	6 / 3 litres to flush vol.	1
Kitchen / Utility Taps (When applicable)	Kitchen	6 litres/min	1

The following items have not been included within the design of the dwelling. If the client wishes to incorporate these items please let us know as they could affect overall compliance.

<u>Type</u>	<u>Location</u>	<u>Required flow Rates, Volume</u>	<u>Qty</u>
Water Softeners	Not Present	Not applicable	0
Waste Disposal Unit	Not Present	Not applicable	0
Rain / Grey Water Harvester	Not Present	Not applicable	0

### **Please Note:**

- For the water calculations process to be finalised these figures will need to be achieved and confirmation of the flow rates will be required.





<b>Job no:</b>	SJTA1456
<b>Date:</b>	24/05/2016
<b>Assessor name:</b>	Mr J Rivers
<b>Registration no:</b>	STRO008133
<b>Development name:</b>	Flat 3, Tapping the Admiral, Castle Road, Camden, NW1 8SU
<b>Issue Date:</b>	24/05/2016

<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 5px; background-color: #e0e0e0;">Rainwater</div> <div style="border: 1px solid black; padding: 5px; background-color: #e0e0e0;">Greywater</div> <div style="border: 1px solid black; padding: 5px; background-color: #e0e0e0;">Results</div> </div>
--

**WATER EFFICIENCY CALCULATOR FOR NEW DWELLINGS**  
 (for use with the Code for Sustainable Homes issues Wat 1 for the May 2009 and subsequent versions)

<b>Dwelling Description</b>	Dwelling - 125 Litres Achieved
-----------------------------	--------------------------------

**1st step - Select from options below:**

Is a Rain and/or Greywater system specified?	<b>No</b>
Is a shower AND bath present?	<b>Yes</b>
Has a washing machine been specified?	<b>No</b>
Has a dishwasher been specified?	<b>No</b>

**2nd step - Build spreadsheet (click button below)**

**BUILD SPREADSHEET**

As soon as this button is pressed the spreadsheet will change according to the options selected previously in the 1st step. Scroll down to see the changes.

**3rd step - Enter consumption details for the specified fittings**

<b>TAPS</b> (excluding kitchen taps)			
	<b>Fitting type</b>	<b>Flow rate (litres/min)</b>	<b>Number of fittings</b>
1	Tap	6.00	2
2			
3			
4			
<b>Proportionate flow rate (litres/min)</b>			4.20
<b>Consumption / person / day (Litres)</b>			11.06
<b>BATHS</b>			
	<b>Fitting type</b>	<b>Capacity to overflow (litres)</b>	<b>Number of fittings</b>
1	Bath	185.00	2
2			
3			
4			
<b>Proportionate capacity to overflow (litres)</b>			129.50
<b>Consumption / person / day (Litres)</b>			20.35

<b>SHOWERS</b>		<b>Fitting type</b>	<b>Flow rate (litres/min)</b>	<b>Number of fittings</b>
	1	Shower	11.00	2
	2			
	3			
	4			
	<b>Proportionate flow rate (litres/min)</b>			7.70
<b>Consumption / person / day (Litres)</b>			<b>48.07</b>	
<b>DISHWASHER</b>				
<p><b>Where no dishwasher is specified, a default consumption figure of 1.25 litres per place setting is used.</b></p>				
<b>Consumption / person / day (Litres)</b>			<b>4.50</b>	
<b>WASHING MACHINES</b>				<b>Number of fittings</b>

Where no washing machine is specified, a default consumption figure of 8.17 litres per kilogram of dry load is used.				
Where no washing machines have been specified but plumbing for future supply of grey/rainwater was installed, please enter details:				
		<b>Consumption / person / day (Litres)</b>	<b>17.16</b>	
<b>WC's</b>	<b>Fitting Type</b>	<b>Flush Type</b>	<b>Volume**</b>	<b>Number of fittings</b>
1	W/C's	Full Flush	6.00	2
		Part Flush	3.00	
2		Full Flush		
		Part Flush		
3		Full Flush		
		Part Flush		
4		Full Flush		
		Part Flush		
		<b>Average effective flushing volume (litres)</b>	<b>3.99</b>	
		<b>Consumption / person / day (Litres)</b>	<b>17.64</b>	

KITCHEN SINK TAPS		Fitting Type	Flow rate (litres/minute)	Number of fittings
1		Tap	6.00	1
2				
3				
4				
Proportionate flow rate (litres/min)				4.20
Consumption / person / day (Litres)				13.00

WASTE DISPOSAL UNIT	
Is a waste disposal unit specified for the dwelling?	Click to select
Consumption / person / day (Litres)	0.00

WATER SOFTENER	
Water Softener in use?	Click to select
Total capacity used per regeneration (%)	
Water consumed per regeneration (litres)	
Average number of regeneration cycles per day (No.)	
Number of occupants served by the system (No.)	
Water consumed beyond 4% person / day (Litres)	0.00

<b>4th step - Analyse Results</b>	<a href="#">Go to Start</a>
-----------------------------------	-----------------------------



<b>INTERNAL WATER CONSUMPTION</b>		
<b>NET INTERNAL WATER CONSUMPTION</b>	(litres/person/day)	<b>131.78</b>
<b>RAINWATER ONLY COLLECTION SAVING</b>	(litres/person/day)	<b>0.00</b>
<b>GREYWATER ONLY RECYCLING SAVING</b>	(litres/person/day)	<b>0.00</b>
<b>RAIN/GREYWATER COLLECTION SAVING (combined system)</b>	(litres/person/day)	<b>0.00</b>
<b>NORMALISATION FACTOR</b>	(litres/person/day)	<b>0.91</b>
<b>TOTAL WATER CONSUMPTION</b>	(litres/person/day)	<b>119.9</b>
<b>CSH CREDITS ACHIEVED</b>		<b>1</b>
<b>CSH MANDATORY LEVEL:</b>		<b>Level 1/2</b>

<b>17. K COMPLIANCE</b>		
<b>EXTERNAL WATER USE</b>	(litres / person / day)	5.00
<b>TOTAL WATER CONSUMPTION</b>	(litres / person / day)	<b>124.9</b>
<b>17. K COMPLIANCE?</b>		<b>Yes</b>

BRE Global 2010. BRE Certification is a registered trademark owned by BRE Global and may not be used without BRE Global's written permission.

Permission is given for this tool to be copied without infringement of copyright for use only on projects where a Code for Sustainable Homes assessment is carried out. Whilst every care is taken in preparing the Wat 1 assessment tool, BREG cannot accept responsibility for any inaccuracies or for consequential loss incurred as a result of such inaccuracies arising through the use of the Wat 1 tool.

**PRINTING:** before printing please make sure that in "Page Setup" you have selected the page to be as "Landscape" and that the Scale has been set up to 75% (maximum)



Ashby Energy Assessors • The Stables • Hill Top Farm • Croxton Kerrial • Grantham • NG32 1QJ  
Tel: 01476 870504 • Email: info@ashbyenergy.co.uk  
VAT number: 927 7683 74 [www.ashbyenergy.co.uk](http://www.ashbyenergy.co.uk)

