

## Calculator: Water Efficiency Calculator

<https://www.gov.uk/government/publications/the-water-efficiency-calculator-for-new-dwellings>

### Summary

The BRE Water Efficiency Calculator employs a methodology for assessing the whole house potable water consumption in new dwellings. The calculation method is to be used to assess compliance against the water performance targets in UK Building Regulations 17.K and the Code for Sustainable Homes (CfSH).

Developers: BRE

Applicable sectors							Themes			
All Infrastructure	Buildings	Roads	Water	Energy	Transport	Construction	Materials	Ecology	Wastewater	
							Potable Water	Carbon/GHG	Other	
<b>Countries</b>	UK					<b>Access</b>	Free to download			
<b>Compatibility with other tools</b>	The calculation method is to be used to assess compliance against the water performance targets in UK Building Regulations 17.K and the CfSH.					<b>Guidance for users</b>	The calculator is used in conjunction with the <i>Water Calculator for New Dwellings Manual</i> which contains a detailed calculation methodology and calculation tables. In the case of a Detailed rather than Basic calculation, calculation tables are used by the user to calculate the input data required by the excel calculator using data from product manufacturers.			
<b>Inputs &amp; outputs</b>	<p>The calculator allows for a Basic or Detailed calculation to be conducted for up to 10 different dwellings.</p> <p>The user needs to input capacity or flowrate data for each type of water installation including: WC, taps, bath, shower, kitchen sink taps, washing machine, dishwasher, water softener.</p> <p>This is used to automatically calculate the litres per person per day consumed for each device which is used to calculate the total water consumption of the dwelling.</p> <p>Where a Detailed calculation is selected, the user needs to use the calculation tables provided in the <i>Water Calculator for New Dwellings Manual</i> in order to calculate the capacity/flowrate data for multiple fittings based on manufacturer data.</p> <p>The calculator outputs the total daily dwelling consumption, indicating the extent of compliance with the CfSH and Building Regulations 17.K.</p>						<b>Methodology</b>	<p>The calculator offers two types of calculations for measuring potable water consumption in new dwellings. The Basic Calculation is offered for simple dwellings without rainwater harvesting nor multiple types of fittings.</p> <p>The Detailed Calculation is offered for more complex homes with multiple types of each water fitting and where grey or rainwater harvesting may be present.</p> <p>For each dwelling, depending on installation types (taps, WC, sinks etc.) the calculation measures total water consumption and indicates the extent to which it is CfSH and Building Regulations 17.K compliant.</p>		
<b>Database library</b>	The majority of data needs to be supplied by the user. However the <i>Water Calculator for New Dwellings Manual</i> contains extensive guidelines as to what data needs be obtained from manufacturers and how that data needs to be processed to generate the appropriate input data.							<b>Data intensity &amp; flexibility</b>	<p>Data flexibility is high as the majority of values are inserted by the user.</p> <p>Data intensity is relatively low if the Basic Calculation is selected, and high if the Detailed Calculation is selected, particularly because of the need to use manual calculation tables.</p>	

Note: "Free to download" does not necessarily imply that it is free for commercial use.