



Specialists in Energy Conservation & Building Control

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Water Efficiency Calculation

**39 The Old Common
Chalford
Gloucestershire**

New Dwelling

Web Site

Issue 1

Notes

1. The calculations at the end of this document show that the potential consumption of wholesome water by persons occupying the dwelling will not exceed 125 litres per person per day.
2. The following page indicates the average flow rates from the proposed appliances that must be adhered to or the calculation will need to be adjusted accordingly.
3. The usage has been calculated using the Water Efficiency Calculator provided by STROMA in their Code for Sustainable Homes software.
4. Note that the actual water consumption will vary depending upon the behavior of the occupants throughout the home.

Appliances

The following assumptions have been made in the calculation:-

Installation	Number	Units of measure
WC Dual flush	1	6 litre / 4 litre
WC Single Flush	0	
Bathroom Basin Taps	2	10 litres/min
Kitchen / Utility taps	2	11 litres/min
Bath	0	
Shower	1	10 litres/minute
Washing machine	1	8.17 litres/kg dry load
Dish washer	1	1.25 litres/place setting
Waste Disposal Unit	0	
Water Softener	0	

1. The client/builder must ensure that the appliances installed do not exceed the units of measure specified otherwise compliance may not be achieved.
2. Manufacturer's literature showing the "units of measure" should be obtained in order to demonstrate compliance to Building Control.
3. The manufacturer's literature and this calculation should also be supplied to the Building owner/occupier

Site Information	
Site Name	
Reg Number	
Street 1	39 The Old Common
Street 2	Chalford
Area	Stroud
Town or City	Gloucestershire
Post Code	

Installation Type	Average Capacity/Flow Rate	Litres/Person/Day
Single Flush WC's	0	0
Dual Flush WC's	4.66	20.6
All WC's	4.66	20.6
Kitchen/Utility Room Taps	11	15.2
Other Taps	10	17.38
Baths	0	0
Showers	10	56
Dishwashers	1.25	4.5
Washing Machines	8.17	17.16
Water Softener		
Waste Disposal Unit	Not Present	0
Total Water Use	130.84 Litres/Person/Day	
Contribution from Rain Water	0 Litres/Person/Day	
Contribution from Grey Water	0 Litres/Person/Day	
Normalisation Factor	0.91 Litres/Person/Day	

Code for Sustainable Homes - Consumptions & Credits	
Water Consumption (Code for Sustainable Homes)	119.1 Litres/Person/Day
Credits Scored	1

Building Regulations 2000 AD Part G (2010 Ed) - Consumption	
External Water Use	5 Litres/Person/Day
Water Consumption (Building Regulation 17 K)	124.1 Litres/Person/Day

WAT 1 - Calculator
Code for Sustainable Homes



Kitchen/Utility Room Taps						
Description	Flow Rate	Qty	Total Water	Grey Water	Rain Water	Net Water
Kitchen Taps	11	2	22	0	0	22
Total Litres/Person/Day Gross						15.2
Total Litres/Person/Day Gross						15.2

Other Taps						
Description	Flow Rate	Qty	Total Water	Grey Water	Rain Water	Net Water
Bathroom Basin	10	2	20	0	0	20
Total Litres/Person/Day Gross						17.38
Total Litres/Person/Day Gross						17.38

Baths						
Description	Capacity	Qty	Total Water	Grey Water	Rain Water	Net Water
Total Litres/Person/Day Gross						0
Total Litres/Person/Day Gross						0

Showers						
Description	Flow Rate	Qty	Total Water	Grey Water	Rain Water	Net Water
Shower Room	10	1	10	0	0	10
Total Litres/Person/Day Gross						56
Total Litres/Person/Day Gross						56

Washing Machines						
Description	L/Kg Dry Load	Qty	Total Water	Grey Water	Rain Water	Net Water
Default Washing Machine	8.17	1	8.17			8.17
Total Litres/Person/Day Gross						17.16
Total Litres/Person/Day Gross						17.16

Dishwashers						
Description	L/Place Setting	Qty	Total Water	Grey Water	Rain Water	Net Water
Default Dishwasher	1.25	1	1.25	0	0	1.25
Total Litres/Person/Day Gross						4.5
Total Litres/Person/Day Gross						4.5

Single Flush WC's						
Description	Flush Volume	Qty	Total Water	Grey Water	Rain Water	Net Water
Total Litres/Person/Day Gross						0
Total Litres/Person/Day Gross						0

Dual Flush WC's						
Description	Flush Vol (P/F)	Qty	Total Water	Grey Water	Rain Water	Net Water
Bathroom W.C	4/6	1	4.66			0
Total Litres/Person/Day Gross						20.6
Total Litres/Person/Day Gross						20.6

Ion Exchange Water Softener	
% of Total Capacity Used Per	
Water Consumed Per Regeneration	
Average Regeneration Cycles Per Day	
Occupants Served by the System	
Water Consumed Beyond 4%	
Water Consumed Beyond 4%	

Rain Water Collection	
Collection Area	
Yield Co-Efficient	
Hydraulic Filter Efficiency	
Average Rainfall	
Daily Rain Water Collection	
Number of Occupants	
Daily Rain Water Per Person	