

Table 1: The water calculator for new dwellings						
Installation Type	Unit of Measure	Capacity/Flow rate (1)	Use Factor (2)	Fixed use (litres/person/ day) (3)	Litres/person/ day = [(1)x(2)] + (4)	
WC (single flush)	Flush Volume	0	4.42	0	0	0
WC (dual flush)	Full flush Volume	4	1.46	0	0	5.84
	Part flush Volume	2.6	2.96	0	0	7.696
WC (multiple fittings)	Average effective flushing Volume (litres)	0	4.42	0	0	0
Taps (excluding kitchen/utility room taps)	Flow rate (litres/min)	7	1.58	1.58	1.58	12.64
Bath (where shower also present)	Capacity to overflow (litres)	140	0.11	0	0	15.4
Shower (where bath also present)	Flow Rate (litres / minute)	4.7	4.37	0	0	20.539
Bath Only	Capacity to overflow(litres)	0	0.5	0	0	0
Shower Only	Flow Rate (litres/minute)	0	5.6	0	0	0
Kitchen/Utility room sink taps	Flow rate (litres/minute)	13.2	0.44	10.36	10.36	16.168
Washing Machine	(Litres/kg dry load)	7	2.1	0	0	14.7
Dishwasher	(Litres/place setting)	0.95	3.6	0	0	3.42
Waste disposal unit	(Litres/use)	Not-present 0	3.08	0	0	0
Water Softener	(Litres/person/day)	0	1	0	0	0
Property Type		Private House		Affordable House		Flats (5 per block)
(5)	Total Calculated use (litres/person/day) =SUM(column 4)	96.40		96.40		96.40
(6)	Contribution from greywater (litres/person/day)					
(7)	Contribution from rainwater (litres/person/day)	28.24		19.14		15.40
(8)	Normalisation factor	0.91		0.91		0.91
(9)	Total water consumption (Code for Sustainable Homes) = [(5)-(6)-(7)]x(8) (litres/person/day)	62.03		70.31		73.71
(10)	External water use	5.00		5.00		5.00
(11)	Total water consumption (Building Regulation 17.K) =(9)+(10)(litres/person/day)	67.03		75.31		78.71

Table 5.1: The rainwater collection calculation for new dwellings - BS8515 Intermediate approach				
Property Type		Private House	Affordable House	Flats (5 per block)
Collection area (m2) - Including garage roofs	(a)	70	70	160
Yield co-efficient and hydraulic filter efficiency e.g. 0.7	(b)	0.72	0.72	0.72
Rainfall (average mm/year)	(c)	610	610	610
Daily rainwater collection (litres)	$[(a) \times (b) \times (c)] / 365 =$ (d)	84.23	84.23	192.53
Number of occupants	(e)	2.26	4.40	12.50
Daily rainwater per person (litres)	(d) / (e) = (f)	37.27	19.14	15.40

Table 5.5: Rainwater saving calculation for new dwellings			
Property Type	Litres per person per day		
	Private House	Affordable House	Flats (5 per block)
Rainwater collected (a)	37.27	19.14	15.40
Rainwater demand (b)	28.24	28.24	28.24
Rainwater savings* (c) = (a)/(b)*(b)	28.24	19.14	15.40

*where the amount collected (a) is greater than the demand (b), the rainwater savings (c) are equal to the demand (b)

Month	Total Half Average Rainfall for Month (mm)	Collected Rainwater Volume (l/day)	Rainwater Demand (l/day)	Rainwater Surplus / Deficit (l/day)	Volume Remaining at Month End (2000 l Tank - Full at Start)	No. Days Supplied via Rainwater Harvesting
Feb	20.25	36.45	63.82	-27.37	1233.57	Full month
Mar	18.44	29.97	63.82	-33.85	184.25	Full month
Apr	25.17	42.29	63.82	-21.54	0.00	Approx 10 days