

WATER EFFICIENCY CALCULATOR FOR; NEW DWELLING

'The Stable Barn' at BOLSTONE COURT, HEREFORDSHIRE, HR1 6LZ

Green Homes Construction Ltd

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The Stable Barn, is a 3 bedroom dwelling with an occupancy of 4 people, a 3000 litre rainwater harvesting tank, 3no wc's, 1 no. bath and 1 no. shower. It has a kitchen and utility.

G APPENDIX A- WATER EFFICIENCY CALCULATOR FOR NEW DWELLINGS

Table A1: The water efficiency calculator

		(1)	(2)	(3)	(4)
Installation type	Unit of measure	Capacity/ flow rate	Use factor	Fixed use (litres/	Litres/ person/day = [(1) x (2)] + (3)
WC (single flush)	Flush volume (litres)	0	4.42	0.00	0.00
WC (dual flush)	Full flush volume (litres)	0	1.46	0.00	0.00
	Part flush volume (litres)	0	2.96	0.00	0.00
WCs (multiple fittings)	Average effective flushing volume (litres)	4.5	4.42	0.00	19.89
Taps (excluding kitchen/utility room taps)	Flow rate (litres/minute)	3.2	1.58	1.58	6.64
Bath (where shower also present)	Capacity to overflow (litres)	165.0	0.11	0.00	18.15
Shower (where bath also present)	Flow rate (litres/minute)	12.1	4.37	0.00	52.88
Bath only	Capacity to overflow (litres)	0	0.50	0.00	0.00
Shower only	Flow rate (litres/minute)	0	5.6	0.00	0.00
Kitchen/ utility room sink taps	Flow rate (litres/minute)	4.5	0.44	10.36	12.34
Washing machine	Litres/kg dry load	7.0	2.1	0.00	14.70
Dishwasher	Litres/place setting	1.2	3.6	0.00	4.32
Waste disposal unit (is one present?)	no	Litres/use	0	3.08	0.00
Water softner	Litres/person/day	0	1.00	0.00	0.00
	(5)	Total calculated use = (sum column 4)			128.913
	(6)	Contribution from greywater (litres/person/day) from Table 4.6			0.00
	(7)	Contribution from rainwater (litres/person/day) from Table 5.5			34.55
	(8)	Normalised factor			0.91
	(9)	Total water consumption = [(5) - (6) - (7)] x (8)			85.87
	(10)	External water use			5.00
	(11)	Total water consumption = (9) + (10) (litres/person/day)			90.87