

PROPOSED DEVELOPMENT

AT

175 ST JOHN'S ROAD

SPALDING

FOR

MR P AND MRS A BOWMAN

WATER CALCULATOR

NOV 2023

Table 1: The water calculator for new dwellings

Installation type	Unit of measure	Capacity/ flow rate	Use factor	Fixed use (litres/ person/ day)	Litres/ person/day = [(1) x (2)] + (3) (4)
		(1)	(2)	(3)	(4)
WC (single flush)	Flush volume (litres)		4.42	0.00	
WC (dual flush)	Full flush volume (litres)	4	1.46	0.00	5.84
	Part flush volume (litres)	2.6	2.96	0.00	7.696
WCs (multiple fittings)	Average effective flushing volume (litres)		4.42	0.00	
Taps (excluding kitchen/ utility room taps)	Flow rate (litres/minute)	4	1.58	1.58	7.9
Bath (where shower also present)	Capacity to overflow (litres)	170	0.11	0.00	18.7
Shower (where bath also present)	Flow rate (litres/minute)	8	4.37	0.00	34.96
Bath only	Capacity to overflow (litres)		0.50	0.00	
Shower only	Flow rate (litres/minute)		5.60	0.00	
Kitchen/utility room sink taps	Flow rate (litres/minute)	8	0.44	10.36	13.88
Washing machine	Litres/kg dry load	8.17	2.1	0.00	17.157
Dishwasher	Litres/place setting	1.25	3.6	0.00	4.5
Waste disposal unit	Litres/use	If present = 1 If absent = 0	3.08	0.00	3.08
Water softener	Litres/person/day		1.00	0.00	
	(5)	Total calculated use (litres/person/ day) = (Sum column 4)			113.713

COMBINED
BATH
&
SHOWER

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)] + (3) (4)
	(6)	Contribution from greywater (litres/person/day) from Table 4.6			
	(7)	Contribution from rainwater (litres/person/day) from Table 5.5			
	(8)	Normalisation factor			0.91
	(9)	Total water consumption (Code for Sustainable Homes) = [(5) - (6) - (7)] x (8) (litres/person/day)			103.48
	(10)	External water use			5.0
	(11)	Total water consumption (Building Regulation 17.K) = (9) + (10) (litres/person/day)			108.48

2.5 Consumption from multiple fittings

Where terminal fittings with varying flow rates and capacities are specified (e.g. hot and cold taps with different flow rates, two types of showers etc.), the average consumption should be calculated as set out below in Table 2:

- Enter the full flow rate or volume of each type of fitting into column (a) of the relevant section of Table 2.
- For taps, where there are separate hot and cold water taps, the flow rate of each tap should be entered separately as two tap types to calculate the average flow rate.
- Calculate the total consumption per fitting type.
- Calculate the average flow rate/volume of the fittings detailed.
- Enter the flow rate/volume of the fitting with the highest flow rate/volume into box (F) with the exception of WCs, where this step is not relevant.
- Calculate the proportionate flow rate/volume by multiplying the highest flow rate/volume by a factor of 0.7 with the exception of WCs, where this step is not relevant.