



Job no: 1 Norfolk Road NW8

Date: 05/07/2015

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Registration no: 431

Development name: 1 Norfolk Road NW8

Issue Date:

Rainwater

Greywater

Results

WATER EFFICIENCY CALCULATOR FOR NEW DWELLINGS

(for use with the Code for Sustainable Homes issues Wat 1 for the May 2009 and subsequent versions)

Dwelling Description Detached

1st step - Select from options below:

Is a Rain and/or Greywater system specified?	Rainwater
Is a shower AND bath present?	Yes
Has a washing machine been specified?	Yes
Has a dishwasher been specified?	Yes

2nd step - Build spreadsheet (click button below)

BUILD SPREADSHEET

As soon as this button is pressed the spreadsheet will change according to the options selected previously in the 1st step. Scroll down to see the changes.

3rd step - Enter consumption details for the specified fittings

TAPS (excluding kitchen taps)		Fitting type	Flow rate (litres/min)	Number of fittings
	1	To be confirmed	2.50	8
	2			
	3			
	4			
	Proportionate flow rate (litres/min)			1.75
Consumption / person / day (Litres)			5.53	

BATHS		Fitting type	Capacity to overflow (litres)	Number of fittings
	1	To be confirmed	210.00	1
	2	To be confirmed	190.00	3
	3			
	4			
	Proportionate capacity to overflow (litres)			147.00
Consumption / person / day (Litres)			21.45	

SHOWERS		Fitting type	Flow rate (litres/min)	Number of fittings
1	To be confirmed	8.00	5	
2				
3				
4				
Proportionate flow rate (litres/min)			5.60	
Consumption / person / day (Litres)			34.96	

DISHWASHER		Fitting Type	Litres per place setting	Number of fittings
1	To be confirmed	1.80	2	
2				
3				
4				
Proportionate litres per place setting			1.26	
Consumption / person / day (Litres)			6.48	

WASHING MACHINES					Is this fitting using rainwater?	Number of Fittings using rainwater
	Fitting Type		Litres per kilogram of dry load	Number of fittings		
1	To be confirmed		7.00	1	Yes	1
2					Click to select	
3					Click to select	
4					Click to select	
Where no washing machines have been specified but plumbing for future supply of grey/rainwater was installed, please enter details:					Click to select	
		Proportionate of litres/kg of dry load		4.90		
		Consumption / person / day (Litres)		14.70		
WC's					Is this fitting using rainwater?	Number of Fittings using rainwater
	Fitting Type	Flush Type	Volume**	Number of fittings		
1	To be confirmed	Full Flush	6.00	5	No	2
		Part Flush	4.00			
2		Full Flush			Click to select	
		Part Flush				

3	Full Flush		Click to select
	Part Flush		
4	Full Flush		Click to select
	Part Flush		
		Average effective flushing volume (litres)	4.66

Consumption / person / day (Litres)	20.60
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KITCHEN SINK TAPS			
	Fitting Type	Flow rate (litres/minute)	Number of fittings
1	To be confirmed	5.00	1
2			
3			
4			

Proportionate flow rate (litres/min)	3.50
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Consumption / person / day (Litres)	12.56
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WASTE DISPOSAL UNIT

Is a waste disposal unit specified for the dwelling?	No
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Consumption / person / day (Litres)	0.00
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WATER SOFTENER

Water Softener in use?	No
Total capacity used per regeneration (%)	
Water consumed per regeneration (litres)	

Average number of regeneration cycles per day (No.)	
Number of occupants served by the system (No.)	
Water consumed beyond 4% person / day (Litres)	0.00

RAINWATER CALCULATIONS	Go to Start
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Part 1: Amount of rainwater collected		
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Rainwater collection system in use?		Yes (Individual)
Which approach is being followed from BS8515:2009?		INTERMEDIATE APPROACH
Rainwater collection area	m ²	105.00
Yield co-efficient		0.75
Hydraulic filter efficiency		0.90
Average rainfall	mm/yr	760.00
Number of occupants served by the system		(Quantity) 6
Percentage collected	%	100.00%
Daily rainwater collection	litres	147.58
Daily rainwater	(litres/person)	24.60

Part 2: Where is the rainwater to be used?		
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WC Consumption	(litres/person/day)	0.00
Washing Machine Consumption	(litres/person/day)	14.70
Daily non potable water demand:	(litres/person/day)	14.70

Part 3: Savings provided by rainwater		
Remaining demand requiring mains top-up/additional collection	(litres/person/day)	0.00
Excess rainwater not currently used:	(litres/person/day)	9.90
Water savings from rainwater use:	(litres/person/day)	14.70

4th step - Analyse Results

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INTERNAL WATER CONSUMPTION

NET INTERNAL WATER CONSUMPTION	(litres/person/day)	116.28
RAINWATER ONLY COLLECTION SAVING	(litres/person/day)	14.70
GREYWATER ONLY RECYCLING SAVING	(litres/person/day)	0.00
RAIN/GREYWATER COLLECTION SAVING (combined system)	(litres/person/day)	0.00
NORMALISATION FACTOR	(litres/person/day)	0.91
TOTAL WATER CONSUMPTION	(litres/person/day)	92.4
CSH CREDITS ACHIEVED		3
CSH MANDATORY LEVEL:		Level 3/4

17. K COMPLIANCE

EXTERNAL WATER USE	(litres / person / day)	5.00
TOTAL WATER CONSUMPTION	(litres / person / day)	97.4
17. K COMPLIANCE?		Yes

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