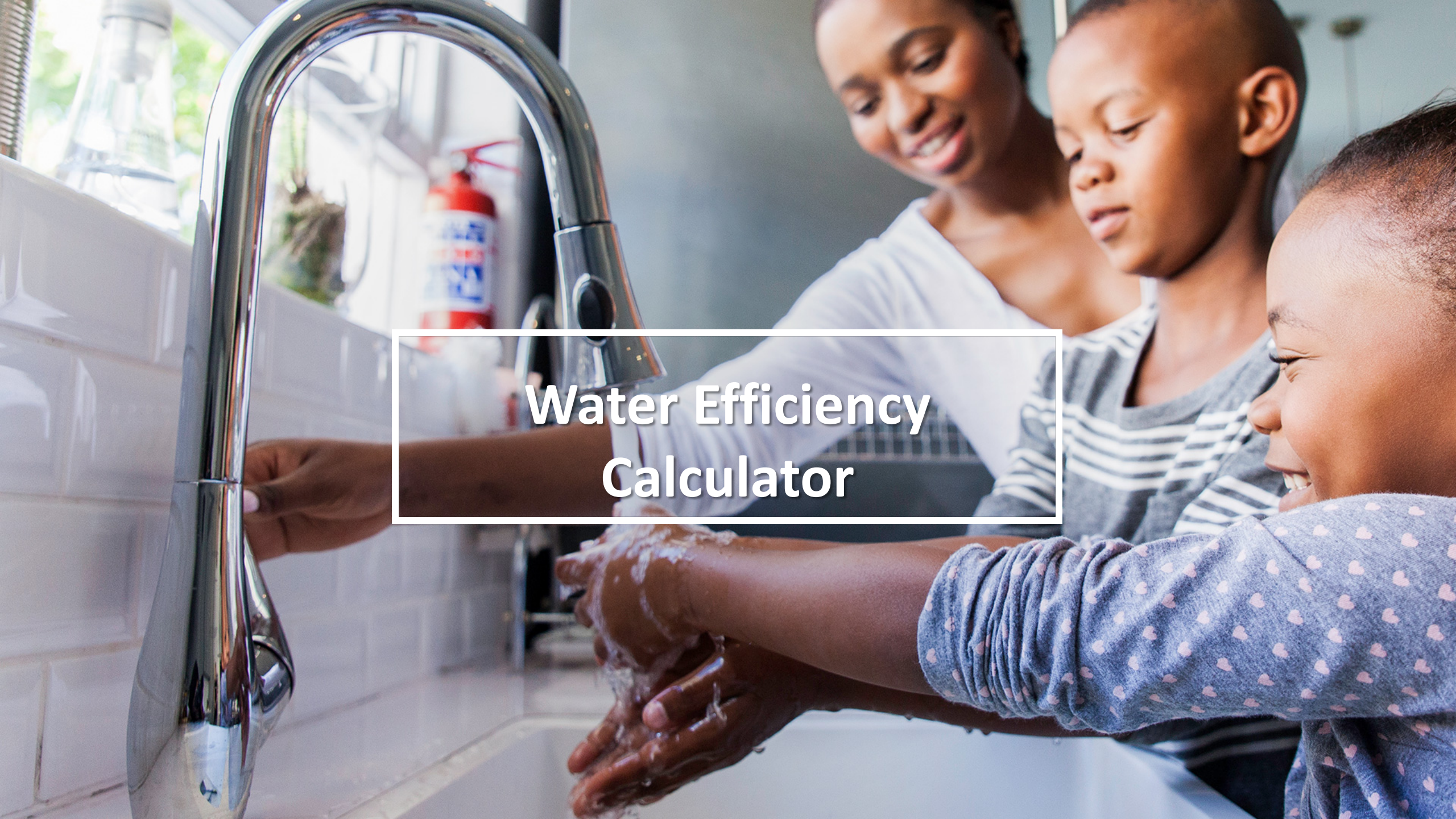


Water Efficiency Calculator

Water Efficiency Calculator

We encourage Developers to construct properties which promote the efficient use of water.

Where qualifying developments can be proven to be constructed to use 100 litres per person per day, or less, we will provide a reduced rate against our Water Infrastructure Charge (as published in our charges scheme).

We will utilise the methodologies set out in Appendix A “Water Efficiency Calculator for New Dwellings” of The Building Regulations Approved Document G, to calculate the level of water consumption at new household premises.

You can find the calculator by following the link below.
Water Efficiency Calculator

Please note:- This calculator cannot be used in conjunction with non-household developments. The infrastructure discount is only applicable for dwellings

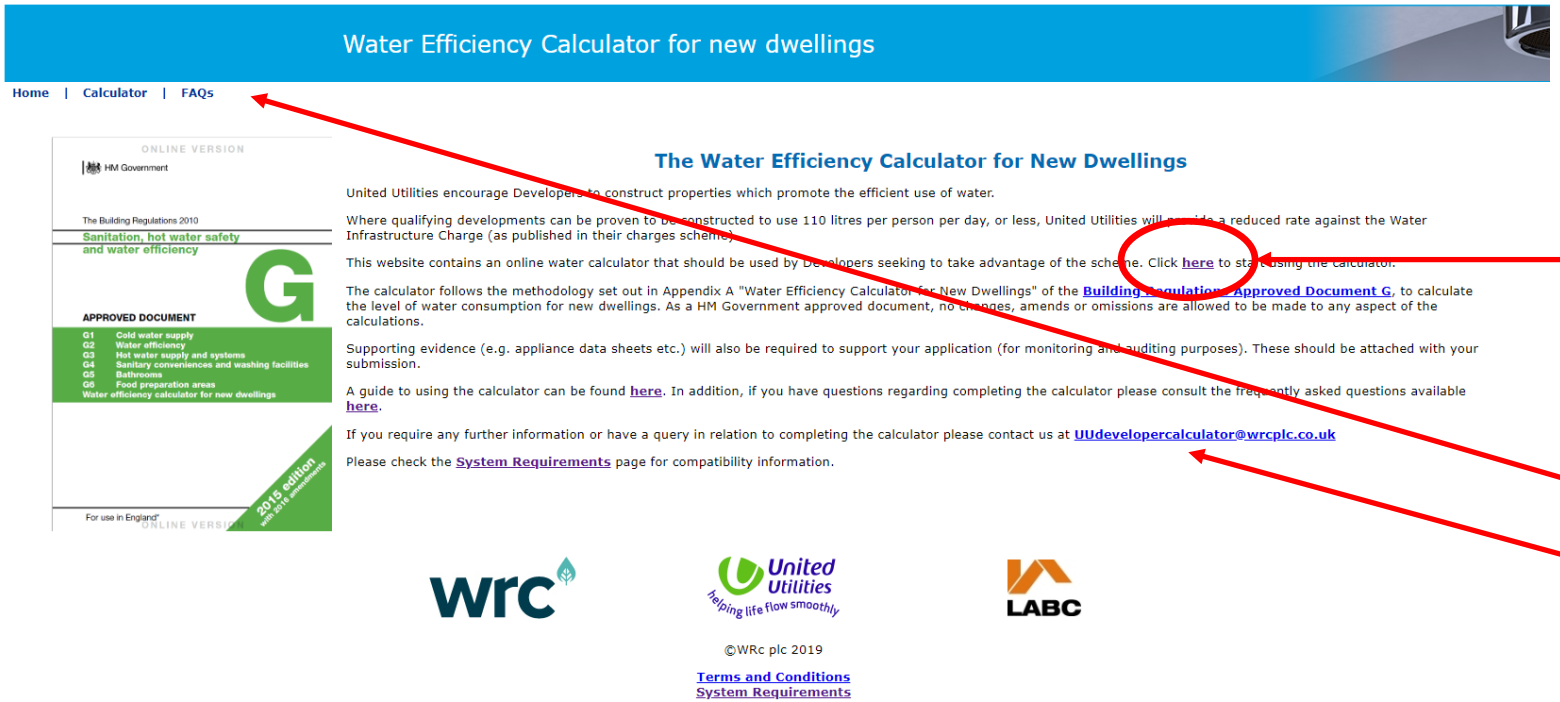
We require Developers to sign a disclaimer notice agreeing to UUW audit of premises and fittings to confirm compliance with the requirements of the Regulations, and accept liability for the full infrastructure charge if the information provided is found to be inaccurate.

How to use the Calculator

Use of the calculator is self intuitive.

We have, however, provided some user entry detail on the following pages.

NOTE:- One completed calculation will be required for each property type on a Development, or if in Apartment Buildings, for each different type of apartment.



Step 1
Click here to access the calculator

Hint! If you have any questions on the calculator, check out the FAQ's page, or use this email

Water Efficiency Calculator for new dwellings

Home | Calculator | Training | FAQs

Hint! Further advice is available on each page by clicking the Information button

Step 2 – this is the front sheet – this will be auto-populated as you work through the calculator.

Click here for instructions on using the Water Calculator

Water Calculator | WC | Taps (Other) | Taps (Kitchen/Utility) | Baths | Dishwashers | Washing M… | Showers | H2O softeners | Greywater | Rainwater

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)
WC (single flush)	Flush Volume (litres)		4.42	0.00	
WC (dual flush)	Full flush Volume (litres)		1.46	0.00	
	Part flush Volume (litres)		2.96	0.00	
WC (multiple fittings)	Average effective flushing Volume (litres)		4.42	0.00	
Taps (excluding kitchen/utility room taps)	Flow rate (litres/min)		1.58	1.58	
Bath (where shower also present)	Capacity to overflow(litres)		0.11	0.00	
Shower (where bath also present)	Flow Rate(litres / minute)		4.37	0.00	
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)		0.44	10.36	
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)	☐ Present	3.08	0.00	
Water Softener	(Litres/person/day)		1.00	0.00	
	(5)	Total Calculated use (litres/person/day) =SUM(column 4)			
	(6)	Contribution from greywater (litres/person/day)			
	(7)	Contribution from rainwater (litres/person/day)			
	(8)	Normalisation factor			0.91
	(9)	Total water consumption (Code for Sustainable Homes) = [(5)-(6)-(7)]x(8) (litres/person/day)			
	(10)	External water use			5.0
	(11)	Total water consumption (Building Regulation 17.K) =(9)+(10)(litres/person/day)			

Hint! All cells shaded in green are fixed – these are values taken from the guidance and cannot be changed.

Step 3 – click on each tab to enter data into the calculator - this will flow through to the front sheet automatically

WRc | WRc-NSF | LABC | Building Control Alliance

WC Data Entry

Hint! If you have multiple WC's that have different flushing volumes, tick this box

Click here for instructions on using the Water Calculator

Water Calculator | WC | Taps (Other) | Taps (Kitchen/Utility) | Baths | Dishwashers | Washing Machines | Showers | H2O softeners | Greywater | Rainwater

Click here for instructions on entering data on WCs

WC Type	Effective Flushing volume* (litres) (a)			Quantity (No.) (b)	Total per Fitting Type = (a)x(b) (c)
Multiple Fittings?	☐				
Dual Flush?	☑				
	Full Flushing volume x 0.33	Part Flushing volume x 0.67	(a)		
1	6	3	3.99	3	11.97
Total (Sum of all Quantities) (d)				3	
Total (Sum of all totals per fitting type) (e)					11.97
Average effective flushing volume (litres)=(e)/(d)					3.99
Calculate					

WCs

For a single flush WC, enter the flushing volume (litres) into column (a) and the quantity (no.) into column (b). Where there are multiple single flush fittings with the same flushing volume, follow the same procedure.

1. For dual flush WCs, tick the 'Dual Flush' box in column (a). There will now be 2 values to input into column (a): the full flushing volume and the part flushing volume.
2. Where multiple WCs are specified with various flushing capacities, tick 'Multiple Fittings' in column (a). For each flushing capacity, enter the flushing volume (into column (a)) and the quantity (into column (b))
3. Click 'Calculate' to calculate the average effective flushing volume.

Hint! Don't forget to hit 'calculate' when you have entered your data. This then populates the front sheet

Step 4

Enter WC details in accordance with the above steps.

Use the Info button for further guidance.

Taps (other) Data Entry

Click here for instructions on using the Water Calculator

Water Calculator | WC | Taps (Other) | Taps (Kitchen/Utility) | Baths | Dishwashers | Washing Machines | Showers | H2O softeners | Greywater | Rainwater

Click here for instructions on entering data on taps (other)

Tap Fitting Type	Flow rate (litres/min) (a)	Quantity (No.) (b)	Total per Fitting Type =(a)x(b) (c)
1	12	4	48.00
2	10	4	40.00
3			
4			
5			
6			
Total (Sum of all Quantities) (d)		8	
Total (Sum of all totals per fitting type) (e)			88.00
Average flow rate (litres/min) = [(e)/(d)]			11.00
Maximum flow rate (litres/min) (f)			12.00
Weighted Average flow rate (litres/min) = [(f)x0.7]			8.40

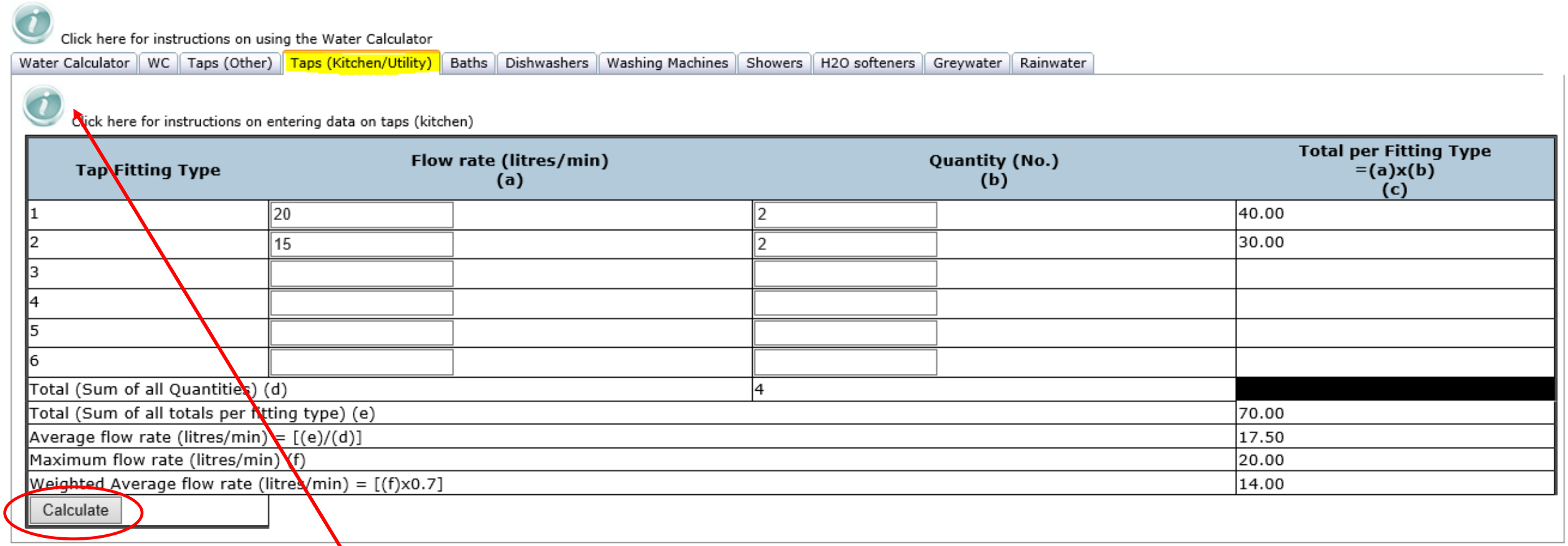
Calculate

Hint! Click the info button for more data

Step 5

Enter details for all HOT and COLD taps in the dwelling which ARE NOT in the Kitchen or Utility Room – these are entered in a separate tab,

Taps (Kitchen/ Utility) Data Entry



Hint! Click the info button for more data

Step 6

Enter details for all HOT and COLD taps in the dwelling which ARE ONLY in the Kitchen or Utility Room – All other taps are entered on the previous tab

Baths – Data Entry

Hint! If you are also installing showers in the property , tick this box. Data for showers will be entered on a separate tab

Click here for instructions on using the Water Calculator

Water Calculator | WC | Taps (Other) | Taps (Kitchen/Utility) | Baths | Dishwashers | Washing Machines | Showers | H2O softeners | Greywater | Rainwater

Click here for instructions on entering data on baths

Bath Fitting Type	Capacity to overflow(litres) (a)	Quantity (No.) (b)	Total per Fitting Type =(a)x(b) (c)
Are there any showers present?	☑		
1	100	1	100.00
2			
3			
4			
5			
6			
Total (Sum of all Quantities) (d)		1	
Total (Sum of all totals per fitting type) (e)			100.00
Average capacity to overflow(litres) = [(e)/(d)]			100.00
Maximum Capacity to overflow (litres) (f)			100.00
Weighted Average capacity to overflow(litres) = [(f)x0.7]			70.00

Calculate

Step 7

If you are NOT installing a bath(s) , leave this sheet completely blank.

If you ARE installing a bath(s) enter the capacity and quantity of the bath on this sheet. Remember to tick the showers present box if you are also installing a shower(s)

Dishwasher – Data Entry

Hint! Click the info button for more information

Click here for instructions on using the Water Calculator

Water Calculator | WC | Taps (Other) | Taps (Kitchen/Utility) | Baths | Dishwashers | Washing Machines | Showers | H2O softeners | Greywater | Rainwater

Click here for instructions on entering data on dishwashers

Type of Dishwasher	Litres per place setting (a)	Quantity (No.) (b)	Total per Fitting Type =(a)x(b) (c)
1			
2			
3			
4			
5			
6			
Total (Sum of all Quantities) (d)			
Total (Sum of all totals per fitting type) (e)			
Average litres per place setting = [(e)/(d)]			
Maximum litres per place setting (f)			
Weighted Average litres per place setting = [(f)x0.7]			

Calculate

Hint! The litres / place settings are obtained from the EU label on the washing machine or technical specification literature

Step 8

Enter the litres / place setting and the quantity of places (capacity of dishwasher). Where no dishwasher is to be provided or consumption figures are not known, the sheet can be left blank and a default setting is utilised.

Washing Machine - Data Entry

Hint! Click the info button for more information

Click here for instructions on using the Water Calculator

Water Calculator | WC | Taps (Other) | Taps (Kitchen/Utility) | Baths | Dishwashers | Washing Machines | Showers | H2O softeners | Greywater | Rainwater

Click here for instructions on entering data on washing machines

Type of washing machine	Litres per kilogram of dry load (a)	Quantity (No.) (b)	Total per Fitting Type =(a)x(b) (c)
1	9	1	9.00
2	7	1	7.00
3	3	1	3.00
4			
5			
6			
Total (Sum of all Quantities) (d)		3	
Total (Sum of all totals per fitting type) (e)			19.00
Average litres per kilogram of dry load = [(e)/(d)]			6.33
Maximum litres per kilogram of dry load (f)			9.00
Weighted Average litres per kilogram of dry load = [(f)x0.7]			6.30

Calculate

Hint! The litres / place settings are obtained from the EU label on the washing machine or technical specification literature

Step 9

Enter the litres / kilogram of dry load setting and the quantity of washing machines in the premises.

Where no washing machine is to be provided or consumption figures are not known, the sheet can be left blank and a default setting is utilised.

Showers – Data Entry

Hint! If you have entered any detail on baths, this box will already be ticked.

Click here for instructions on using the Water Calculator

Water Calculator | WC | Taps (Other) | Taps (Kitchen/Utility) | Baths | Dishwashers | Washing Machines | Showers | H2O softeners | Greywater | Rainwater

Click here for instructions on entering data on showers

Shower fitting Type	Flow rate (litres/min) (a)	Quantity (No.) (b)	Total per Fitting Type =(a)x(b) (c)
Are there any Baths Present?	☑		
1	12	2	24.00
2			
3			
4			
5			
6			
Total (Sum of all Quantities) (d)		2	
Total (Sum of all totals per fitting type) (e)			24.00
Average flow rate (litres/min) = [(e)/(d)]			12.00
Maximum flow rate (litres/min) (f)			12.00
Weighted Average flow rate (litres/min) = [(f)x0.7]			8.40

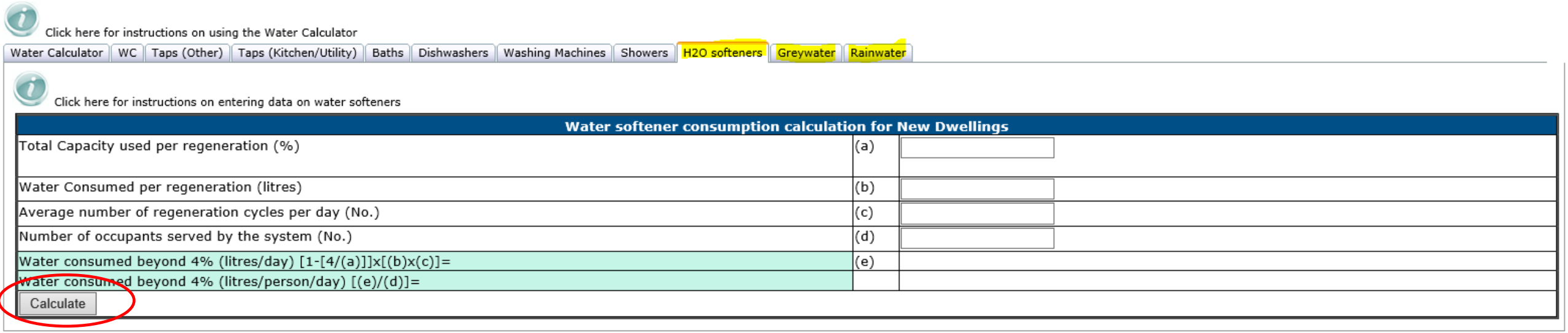
Calculate

Step 10

Enter the flow rates of the shower(s) and the number of showers in the premises.

If you have entered any data for Baths, the ‘baths present’ box will already be ticked. If you are not installing baths at the property, the Baths present box will be blank

Water Softeners, Greywater, Rainwater re-cycling



Step 11

Any data on Water Softeners, Rainwater or Greywater recycling systems must be added on the final three tabs of the calculator, if applicable.

The information buttons will provide further information.
Remember to hit ‘calculate’ after each tab is completed.

Water Calculator | WC | Taps (Other) | Taps (Kitchen/Utility) | Baths | Dishwashers | Washing Machines | Showers | H2O softeners | Greywater | Rainwater

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)
WC (single flush)	Flush Volume (litres)		4.42	0.00	0
WC (dual flush)	Full flush Volume (litres)	6	1.46	0.00	8.76
	Part flush Volume (litres)	3	2.96	0.00	8.88
WC (multiple fittings)	Average effective flushing Volume (litres)		4.42	0.00	0
Taps (excluding kitchen/utility room taps)	Flow rate (litres/min)	9.00	1.58	1.58	15.80
Bath (where shower also present)	Capacity to overflow(litres)		0.11	0.00	0
Shower (where bath also present)	Flow Rate(litres / minute)		4.37	0.00	
Bath Only	Capacity to overflow(litres)		0.50	0.00	
Shower Only	Flow Rate (litres/minute)	9.00	5.60	0.00	
Kitchen/Utility room sink taps	Flow rate (litres/minute)	2.00	0.44	10.36	
Washing Machine	(Litres/kg dry load)	4.00	2.1	0.00	
Dishwasher	(Litres/place setting)	1.25	3.6	0.00	
Waste disposal unit	(Litres/use)	☐ Present	3.08	0.00	
Water Softener	(Litres/person/day)		1.00	0.00	0
	(5)	**Total Calculated use (litres/person/day) =SUM(column 4)**			107.98
	(6)	Contribution from greywater (litres/person/day)			0
	(7)	Contribution from rainwater (litres/person/day)			0
	(8)	Normalisation factor			0.91
	(9)	Total internal water consump = [(5)-(6)-(7)]x(8) (litres/person/day)			98.26
	(10)	External water use			5.0
	(11)	**Total water consumption (Building Regulation 17.K) =(9)+(10)(litres/person/day)**			103.3

Click here to fill in details before printing:

Step 12
Return to front tab – all the calculations should have flowed through to here

Hint! Your consumption per person figure will appear here

Step 13
Click this button and **you must** enter in model details of your appliances – remember; these are what we will check when we visit the property

Installation Type	Make/Model (*mandatory)		Litres/Person/Day
WC (dual flush)	Armitage Shanks	*	17.64
Taps	AWK	*	15.80
Showers Only	Triton Luca	*	50.40
Kitchen Taps	Bristan Matrix	*	11.24
Washing Mac		Make/Model required (if known)	8.40
Dishwasher		Make/Model required (if known)	4.5
Property Type	The Malting	*	
Housing Deve	Primrose Heights, Sandbach, Cheshire	*	
Click here to	CONFIRM		

Click here to print (do not use your browser's print menu option):

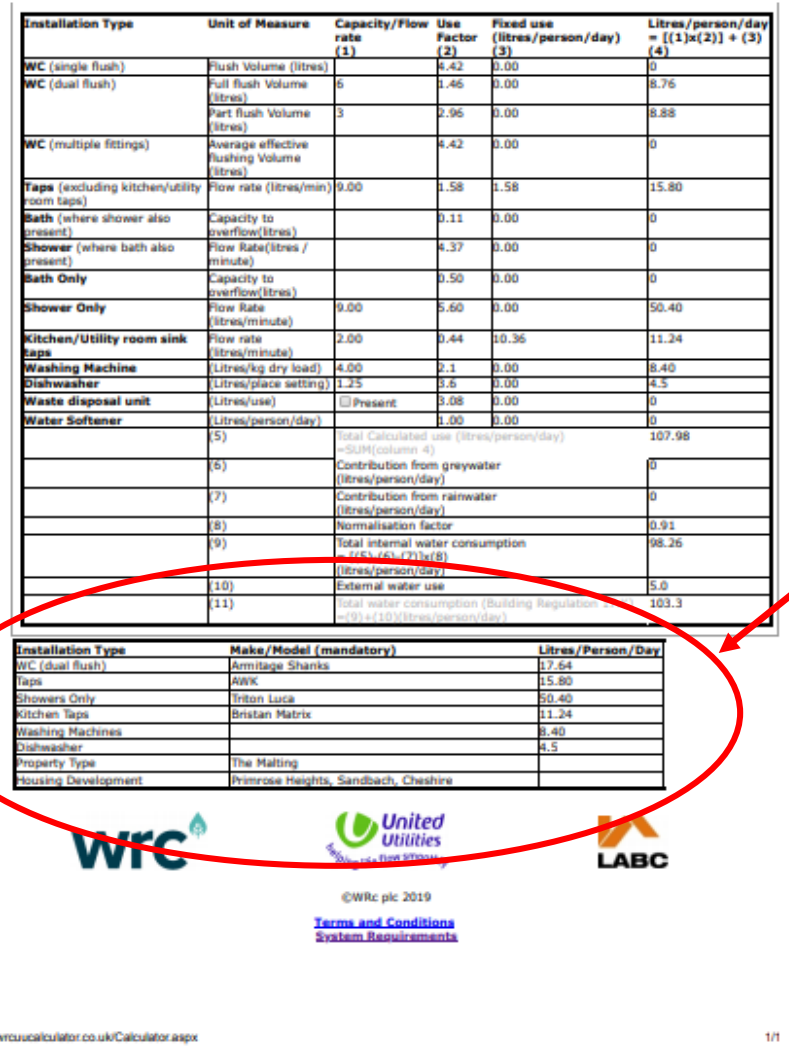
Hint! You will need to provide product datasheets to support your application

Step 14
Finally enter in the property type and name of your development.

Click 'CONFIRM' to confirm the model details you have entered are correct.

Then print of your calculation sheet

Submitting your application



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)
WC (single flush)	Flush Volume (litres)		4.42	0.00	0
WC (dual flush)	Full flush Volume (litres)	6	1.46	0.00	8.76
	Part flush Volume (litres)	3	2.96	0.00	8.88
WC (multiple fittings)	Average effective flushing Volume (litres)		4.42	0.00	0
Taps (excluding kitchen/utility room taps)	Flow rate (litres/min)	9.00	1.58	1.58	15.80
Bath (where shower also present)	Capacity to overflow(litres)		0.11	0.00	0
Shower (where bath also present)	Flow Rate(litres / minute)		4.37	0.00	0
Bath Only	Capacity to overflow(litres)		0.50	0.00	0
Shower Only	Flow Rate (litres/minute)	9.00	5.60	0.00	50.40
Kitchen/Utility room sink taps	Flow rate (litres/minute)	2.00	0.44	10.36	11.24
Washing Machine	(Litres/kg dry load)	4.00	2.1	0.00	8.40
Dishwasher	(Litres/place setting)	1.25	3.6	0.00	4.5
Waste disposal unit	(Litres/use)	☐ Present	3.08	0.00	0
Water Softener	(Litres/person/day)		1.00	0.00	0
	(5)	Total Calculated use (litres/person/day) =SUM(column 4)			107.98
	(6)	Contribution from greywater (litres/person/day)			0
	(7)	Contribution from rainwater (litres/person/day)			0
	(8)	Normalisation factor			0.91
	(9)	Total internal water consumption =[(5)-(6)-(7)]x(8) (litres/person/day)			98.26
	(10)	External water use			5.0
	(11)	Total water consumption (Building Regulation =(9)+(10)(litres/person/day)			103.3

Installation Type	Make/Model (mandatory)	Litres/Person/Day
WC (dual flush)	Armitage Shanks	17.64
Taps	AWK	15.80
Showers Only	Triton Luca	50.40
Kitchen Taps	Bristan Matrix	11.24
Washing Machines		8.40
Dishwasher		4.5
Property Type	The Malting	
Housing Development	Primrose Heights, Sandbach, Cheshire	

WRc United Utilities LABC

Terms and Conditions
System Requirements

https://wrcuucalculator.co.uk/Calculator.aspx 1/1

Step 15
Remember, you will need to complete a form for each property type on each development.
Print on each application the property type and development it relates to

Step 16
Submit copies of completed calculations for each property type for which you are claiming infrastructure discount. Attach product datasheets for **all** products to support your application. These datasheets will also be used for audit verification

Step 17 – DISCLAIMER REQUIRED FOR EVERY SUBMISSION
Once we are satisfied that the properties will achieve less than 100 litres of consumption per person per day we will send you a disclaimer to sign.
You will not be eligible for the sustainable infrastructure charge until we have received your signed disclaimer back.