



Influencing Water Demand Behaviour



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Demand Planning Manager



ESW Experience

Projects

- Baths v Showers
- Shower challenge
- Chancellor Park Meter reads → SmartView
- Water Savings Toolkit
- Heybridge Dual Flush
- H₂eco
- Heybridge
- Good Habits

Questions

- Can behaviour be changed?
- Are changes measurable and sustainable?
- How does behaviour interact with hard water efficiency measures?
- Evaluation/measurement

Where next



Baths v Showers 2002

Can Behaviour be
changed? *What can go wrong*

Monitored 2 small logged cul de sacs

Customers asked to only take showers for 1 week

Before survey: No. baths

No. showers

Power shower?

Time spent in shower

Occupancy

Same survey during shower week



Baths v Showers 2002

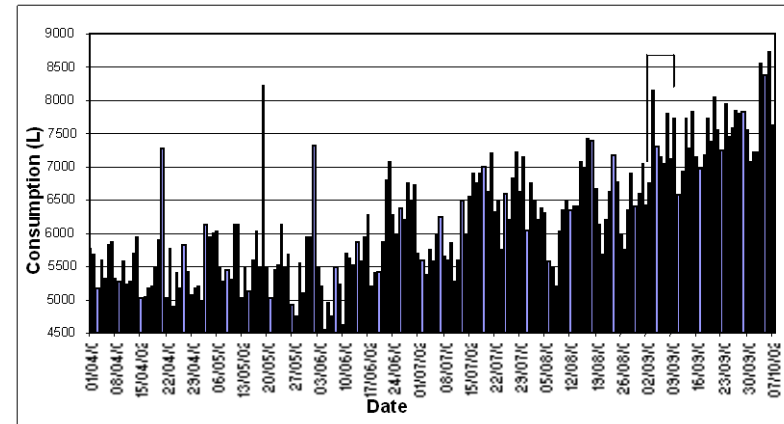
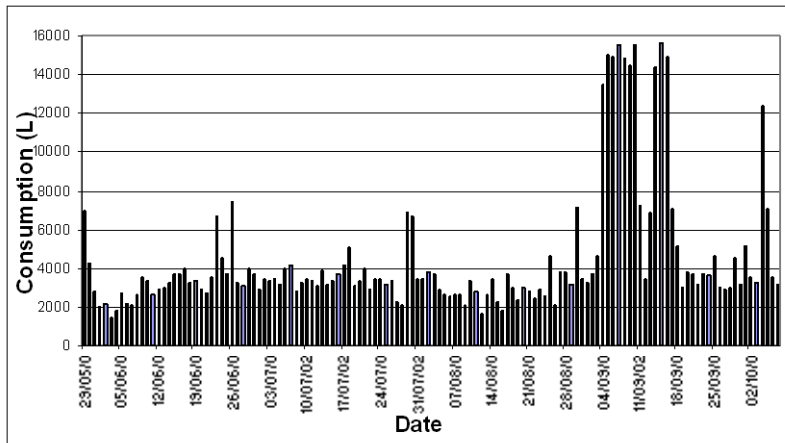
Only 4 customers took part

Before: 61 showers and 26 baths

After: 93 showers and 5 baths



Baths v Showers





Shower Challenge 2007 Can behaviour be changed? **YES**

3500 timers

Survey – 50% completed



65% claimed to have reduced the time spent in shower by 2 mins 49 seconds to average of 4.5 mins, saving average 9.8 l/d



Chancellor Park Meter reads 2006 *can measurable savings be achieved?*

4 weekly meter reads sent in customised letters
for 1 year:

Average l/d and whether increase or decrease
compared with previous month

+ 1 mnth benchmark table

+ 2 increase/decrease equivalent to x wc flushes

+3 3 winter tips

+4 table with occupancy v average consumption for all homes

+5 bar chart of monthly consumption

+6 bar chart of their cons and other homes with same occupancy

+7 other households with same occupancy have reduced by x%

+10 Summer 3 months compared with winter 3 months

+12 bar chart with each month



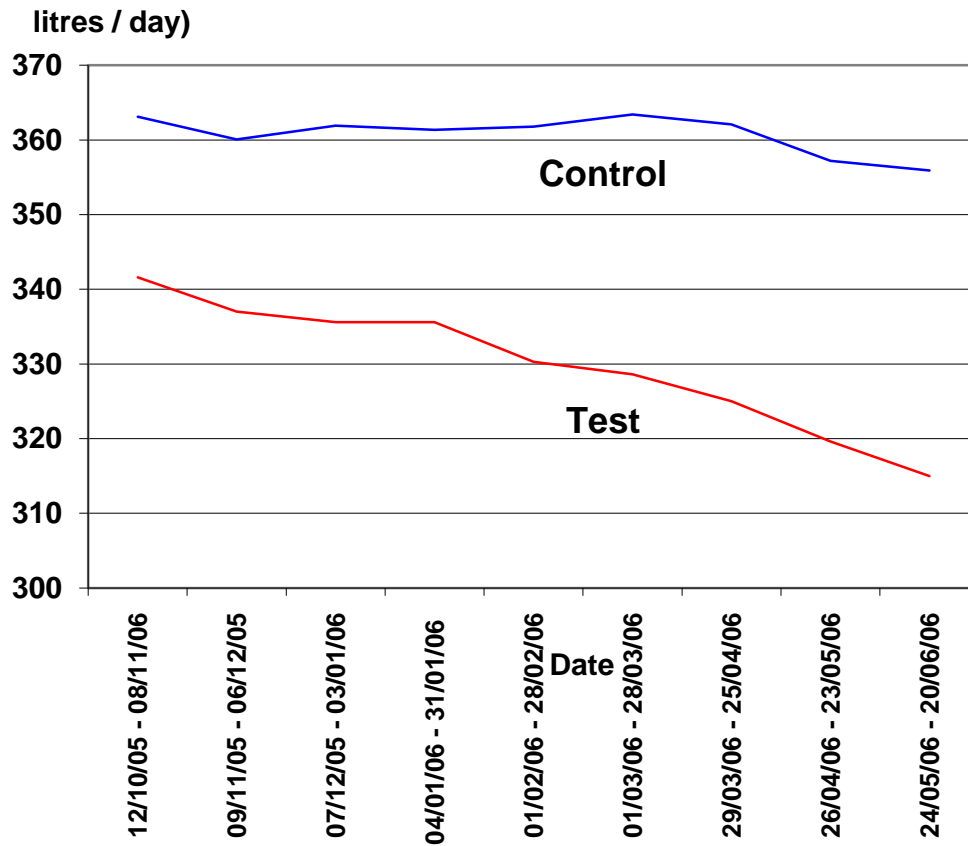


Chancellor Park meter readings results

- 81% took part to find out how much water they use
- 19% took part to save money
- 81% took action because of the letters eg waterbutt request, SAFs
- How often do you think people would like information about their water use?
 - 49% twice a year
 - 38% monthly
 - 13% temporarily for 3 months
- 69% have made permanent changes
 - Reducing no. washing machine loads
 - Dishwashing only morning and night
 - Not leaving tap running when cleaning teeth



Chancellor Park meter reads



7% saving



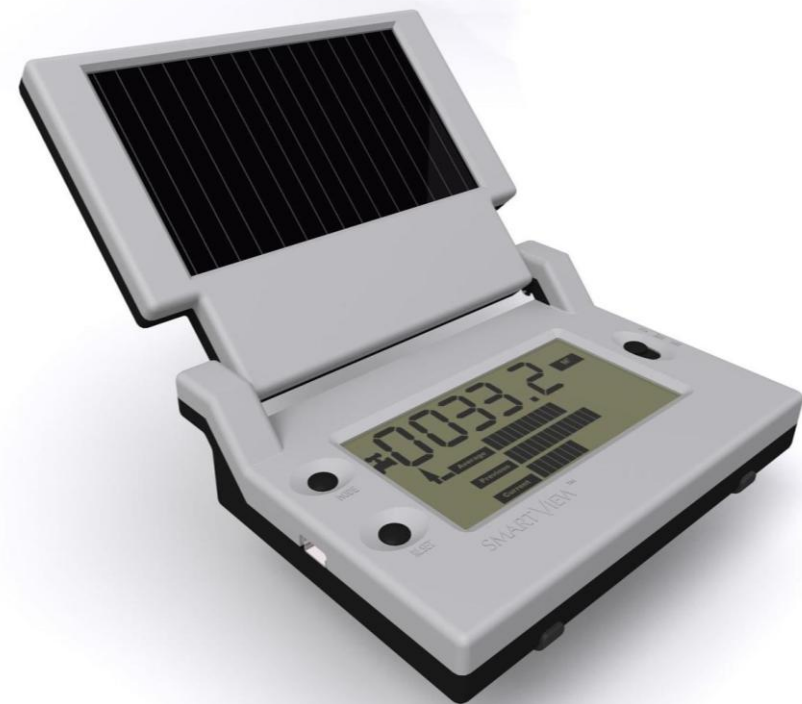
Smart Meters

Trial with Smart View

No saving identified

Variability>>>Saving

Awareness of volumes





The Water Saving Toolkit Project 2006

Are behaviour changes sustainable?



Retrofit Project

- Self Audit with credit system for product selection by customer
- Surveys, Focus Groups, Feedback
- Pester Power
- Products
- Savings 13.85 l/p/d
- Savings + 2 yrs 9.06 l/p/d

Evaluation Project 2010

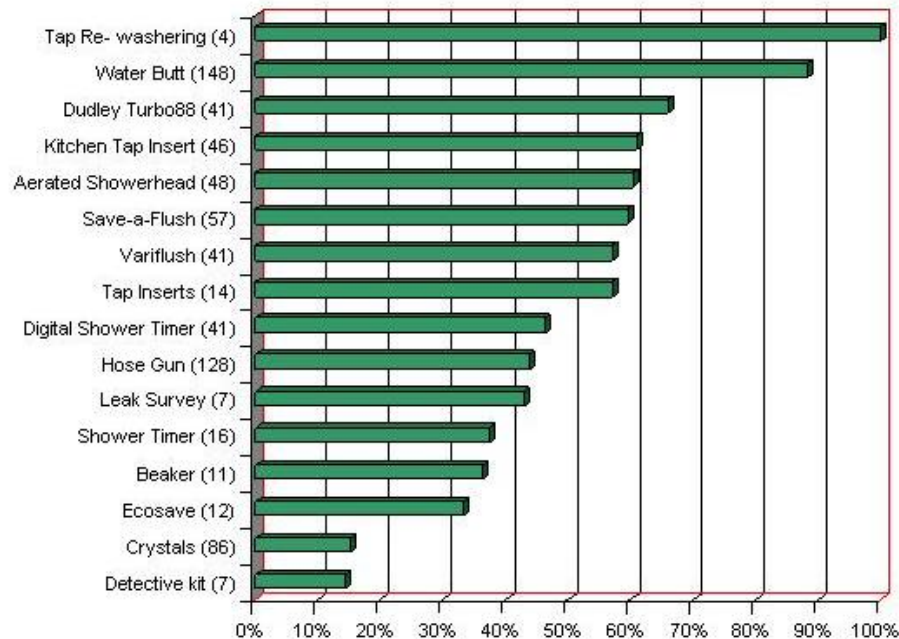
- Are the products still in use?
- What do customers remember?
- Has their behaviour changed?

Area	Product	Credit Points
Children	Detective Kit	10
Garden	Crystals	5
	Water Butt	15
	Hose Gun	5
Leakage	Ecosave	10
	Leak Survey	15
Toilets	Save-a-Flush	5
	Variflush	15
	DudleyTurbo88	15
Taps	Kitchen Tap Insert	10
	Tap Inserts	10
	Tapmagic	10
	Beaker	5
	Tap Re-washing	15
	Drip Gauge	5
Shower & Bath	Aerated Showerhead	10
	Digital Shower Timer	10
	Shower Timer	5
	Bath Measure	5
	Shower Flow Bags	5



The Water Saving Toolkit Project

Use of original products



Very high recall of original programme

Lasting effect on customers

- Points system
- Water efficiency
- Water saving products
- Promotional items

Raised awareness of need to save water

Educational impact of products

Products still being used

High positive impact after 3 years

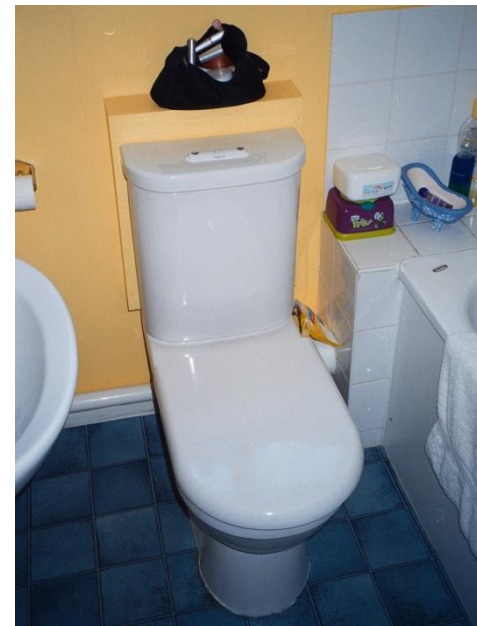


Dual Flush Replacement Heybridge 2002

Interaction with hard measures? *children*

8 dwellings had 7.5 l siphon
wc replaced with 6/3 l dual
flush

Overall saving only 8.2 l/hd
based on measured
volumes



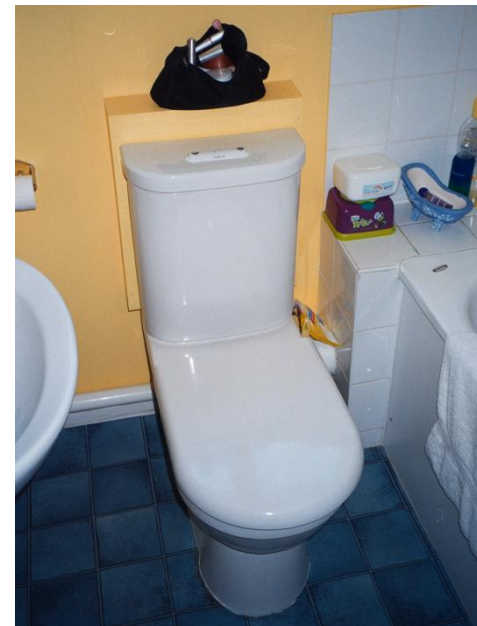


Dual Flush Replacement Heybridge 2002

**8 dwellings had 7.5 l siphon
wc replaced with 6/3 l dual
flush**

**Overall saving only 8.2 l/hd
based on measured
volumes**

**Young children can press buttons
but can't push siphon handle**





H₂eco Retrofits *interaction with hard measures*

Artesia Consulting: Examining savings from 4 very similar projects

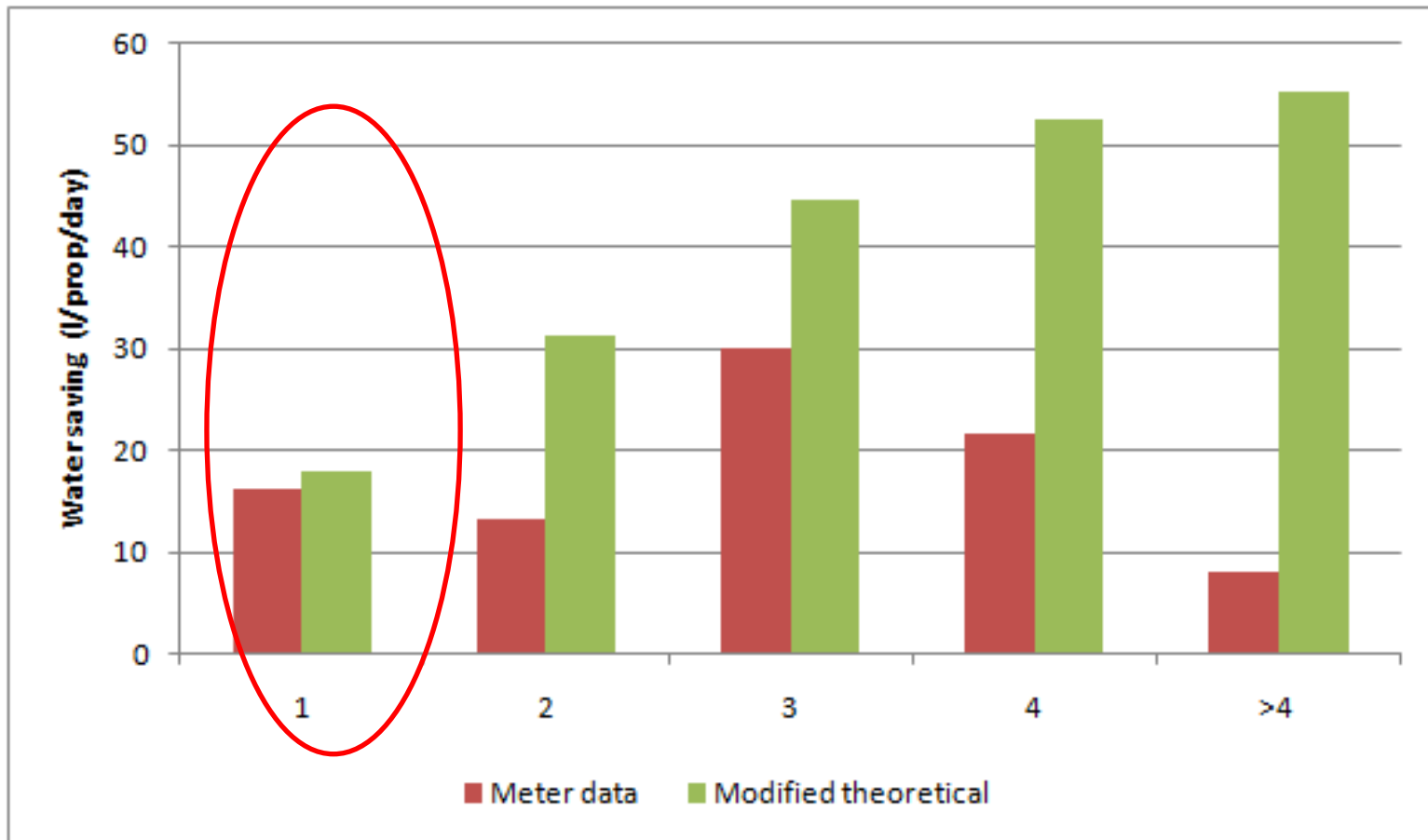
Greatest saving from EcoBETA dual flush retrofit

Looking for patterns

Compared actual saving with potential saving



Occupancy – savings per property



Heybridge Phase 2

Evaluation - *Can Interviews explain water use?*



**Cathy Knamiller, Christine Sefton
and Liz Sharp**

University of Bradford

Will Medd University of Lancaster

Objectives of phase 2

- to compare water use in the Heybridge water efficient homes with other similar new homes.
- to understand perception and behavioural patterns of water use and determine how these impact on the potential for future water savings.

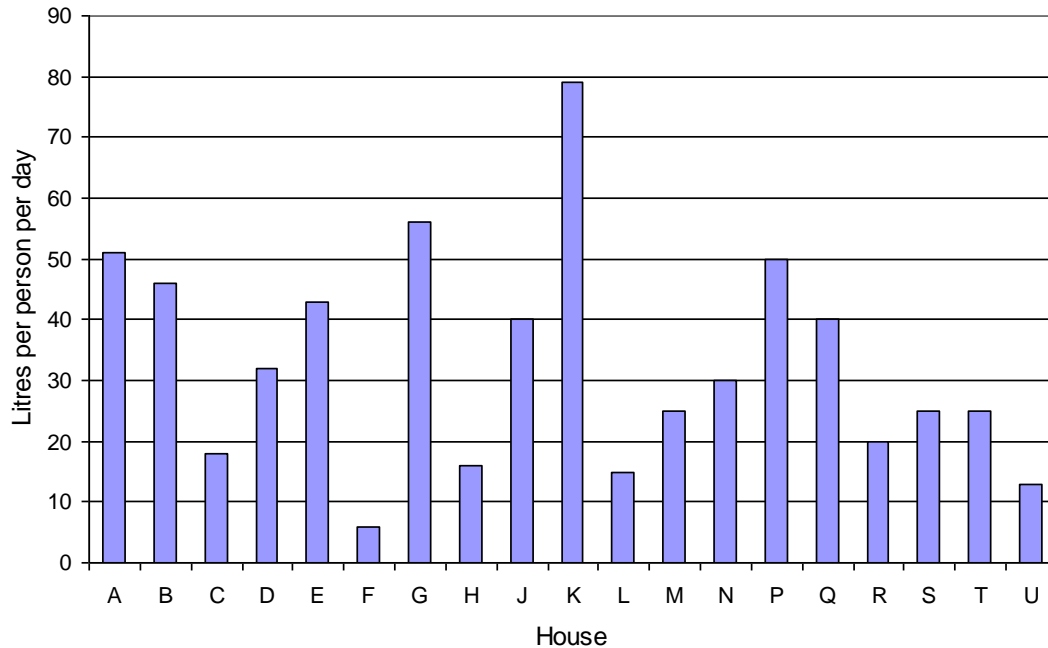
In depth interviews

**Talked through how use water and
discussed graphs of their water
use**



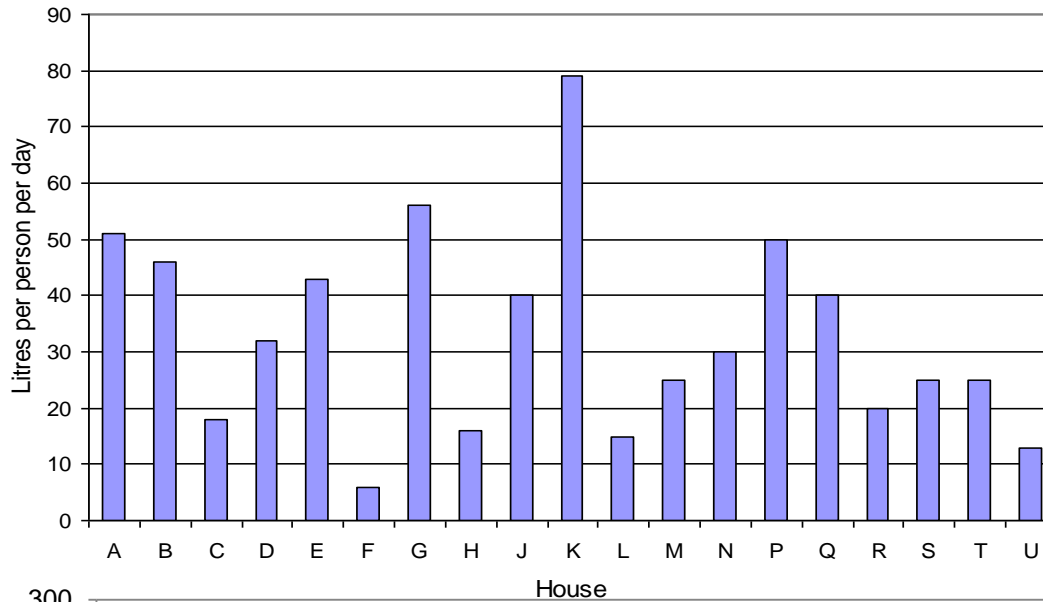
Heybridge

2004/5 Water Use for Baths and Showers

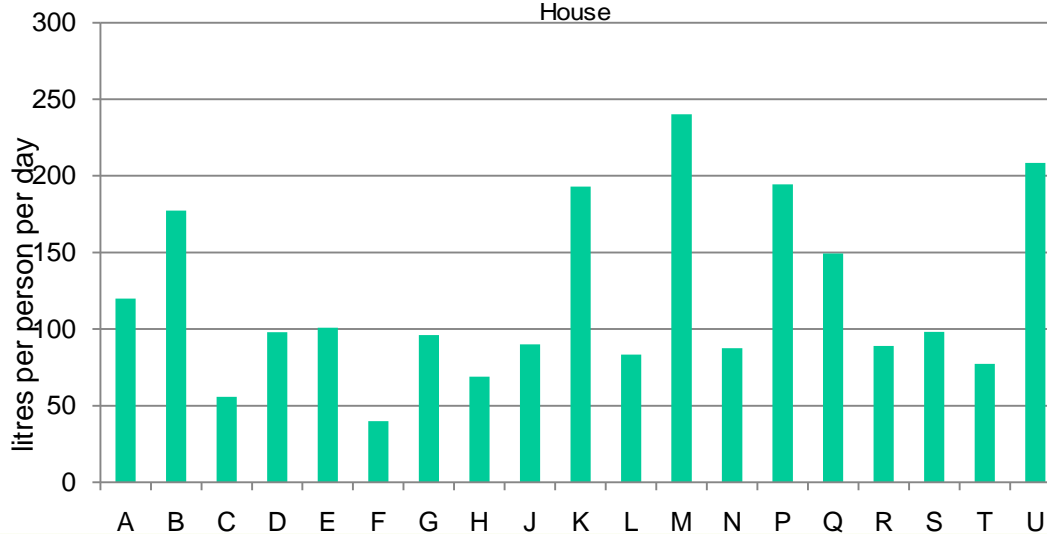


House F 6 l/hd/d
Bath/shower at relatives' unmeasured house

House K 80 l/hd/d
Always fill bath to overflow



Baths and Showers



Total Consumption



Social Norms

Where Next?

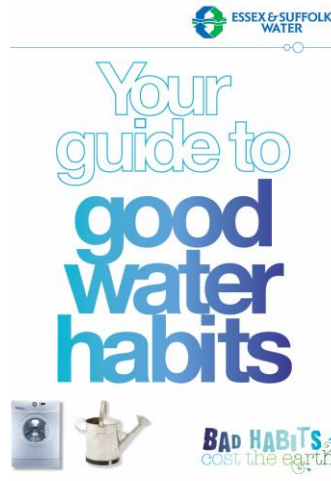
- Only 1 out of 20 customers know that the average water use is 150 litres per day.
- Only 1 in 10 customers know that they can save 12 litres by spending 1 minute less in the shower.
- Nearly half of customers do not know how much water they can save by showering rather than taking a bath.
- Six out of 10 customers think a bath uses less than 50 litres of water.
- 3 out of 10 customers use a washing machine when not fully loaded.
- 5 out of 10 customers who have a garden don't use a hose gun when watering the garden

Source: Recent survey of ESW Customers



Good Habits Project

- Shower timer
- Universal plug
- Beaker
- Magnet
- Hose gun
- Waterstick
- Water Saving Crystals
- Drip gauge
- Cistern Displacement bag
- Shower flow bag
- Tea towel



Take a shorter shower

Spending just one minute less in the shower can help you save as much as 24 glasses of water each time. Over time this can make a real difference to your water consumption.

60% of customers

...said they are likely to spend less time in the shower when they know how much water they can save.



Why not challenge yourself? Use our 5 minute **shower timer** to see if you can reduce the time you spend in the shower.

Turn off the tap when washing or shaving

A basin tap has a flow rate of around 6 litres per minute, so if you leave the tap running when washing or shaving you can waste a huge amount of water. Fill the basin or bowl with a small amount of water and use the **universal plug** to prevent this water being wasted.

9 out of 10

...found it easy to change their behaviour and not leave the tap running.



Turn off the tap when cleaning teeth

If you turn the tap off while brushing your teeth, you can save as much as 90 litres of water a week – enough to fill 158 pint glasses! Use the universal plug and **collapsible beaker** to help save water.

8 out of 10

...turn the tap off when brushing their teeth.



Fit a trigger gun to your hosepipe

Hosepipes can use as much water in an hour as a family of four in a whole day, so you can save a lot of water simply by fitting a **trigger hose gun** to control the water flow.

50% of customers

...who have a garden use a trigger gun on their hose.



Help soil retain water

We've included some useful items which will help you to water your plants less – without letting them dry out! Try using **water-storing crystals** in your hanging baskets and pots – the crystals become a gel which stores water, and the plants can then access the water when they need it. This means you can afford to water them less often.

7 out of 10 people

...know that they can use water-storing crystals to save water in plant pots and hanging baskets.



Water plants only when needed

You can also use the **Waterstick** to let you know exactly when your plants need watering – just insert it into the root ball of a plant and the indicator strip will gradually turn red as the soil dries out, saving you unnecessary watering time!





Conclusion

Where Next?

Multi-prong approach - One Size will NOT fit all

Hard slog but achievable

Challenge is measurement – separating behavioural effects from other variability



Always other unidentified factors





Always other unidentified factors

