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
- H_2eco
- 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

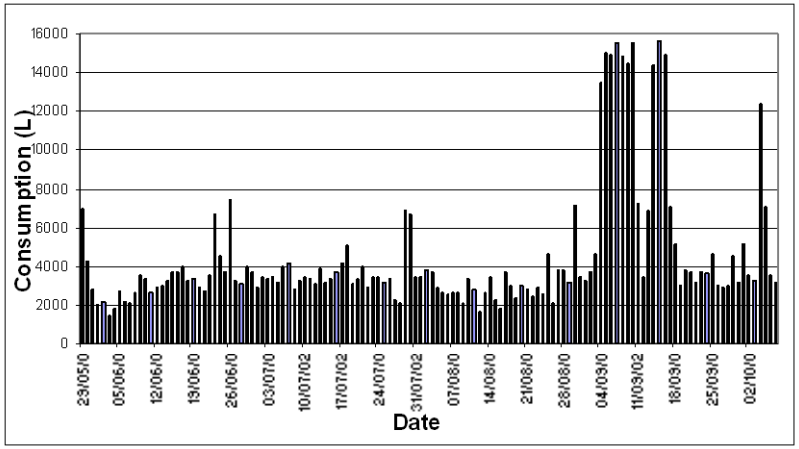
Baths v Showers 2002

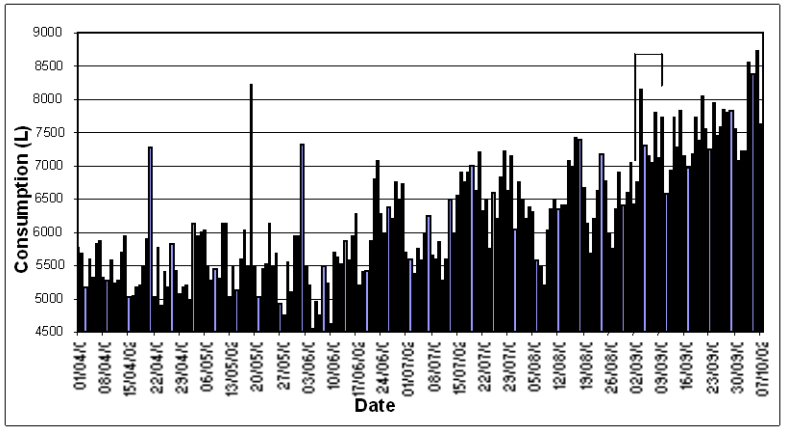
Only 4 customers took part

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%

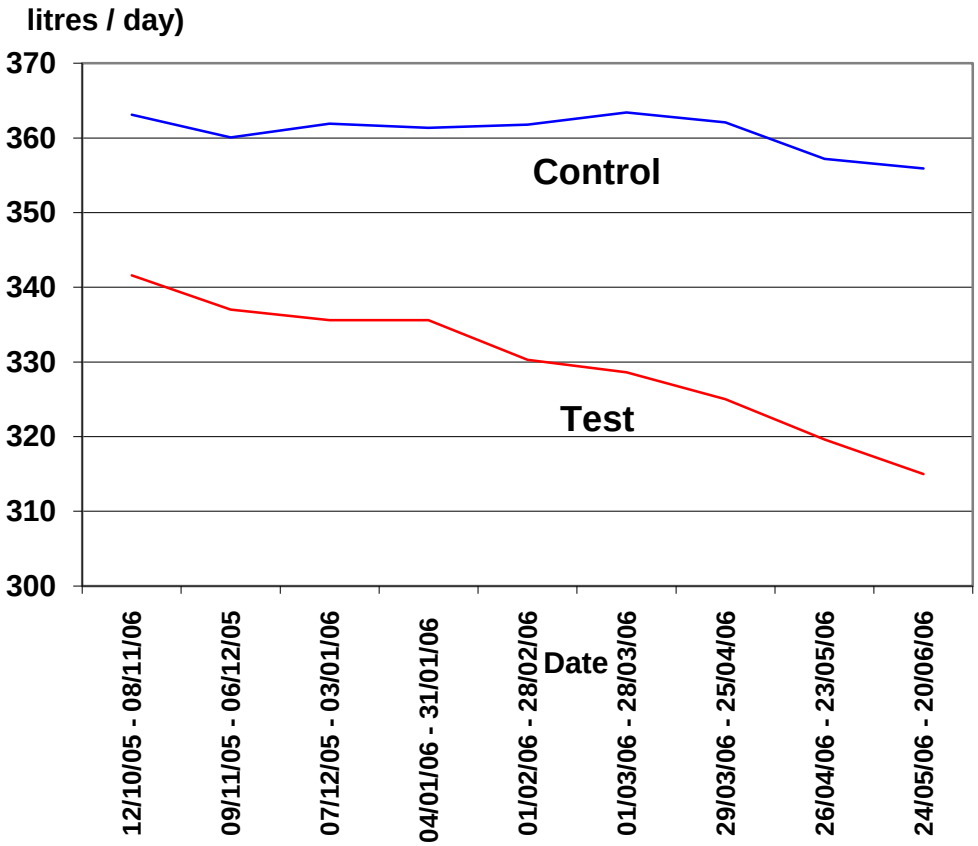
+10 Summer 3 months compared with winter 3 months

+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

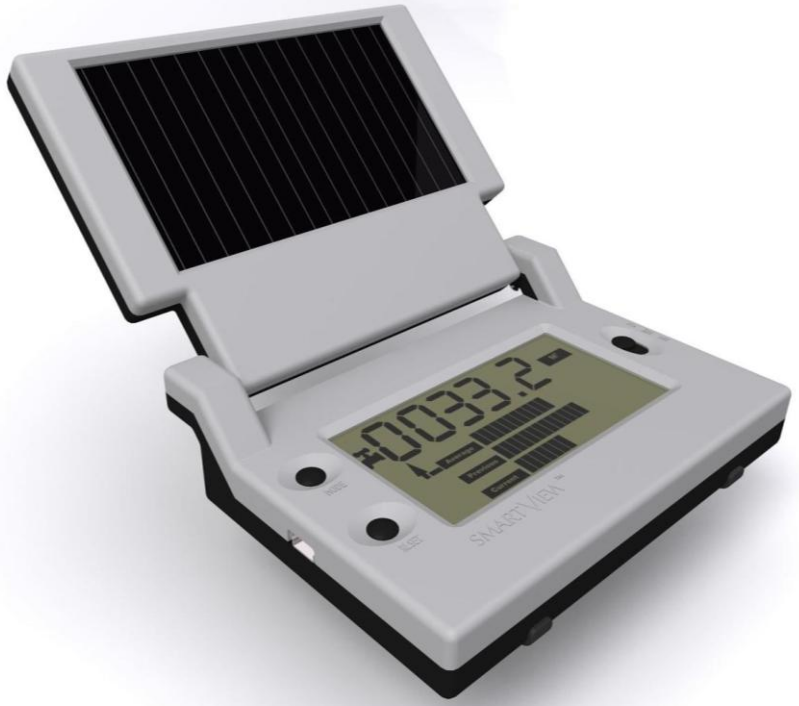
Chancellor Park meter reads



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

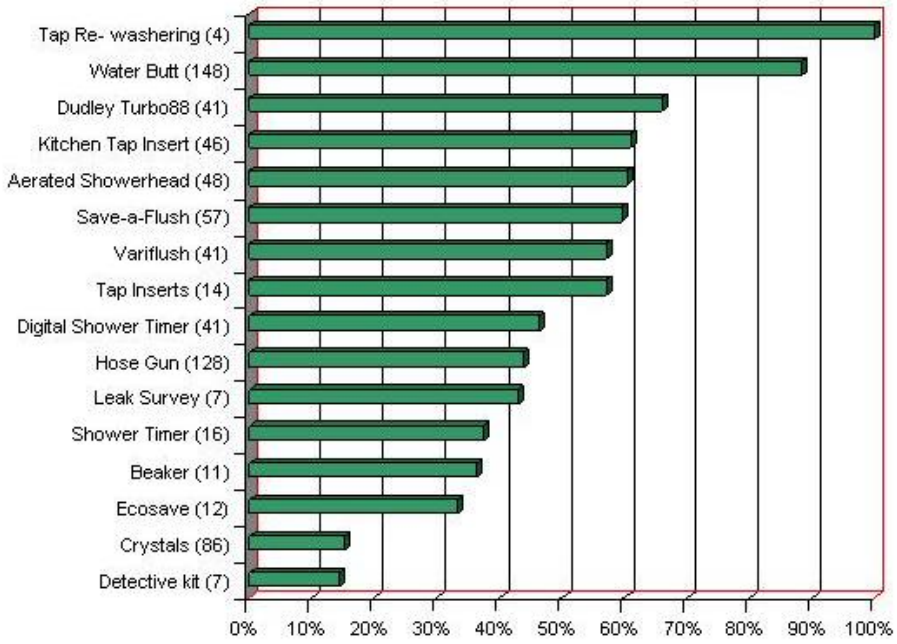
Evaluation Project 2010

- 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-washering	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

H_2eco Retrofits *interaction with hard measures*

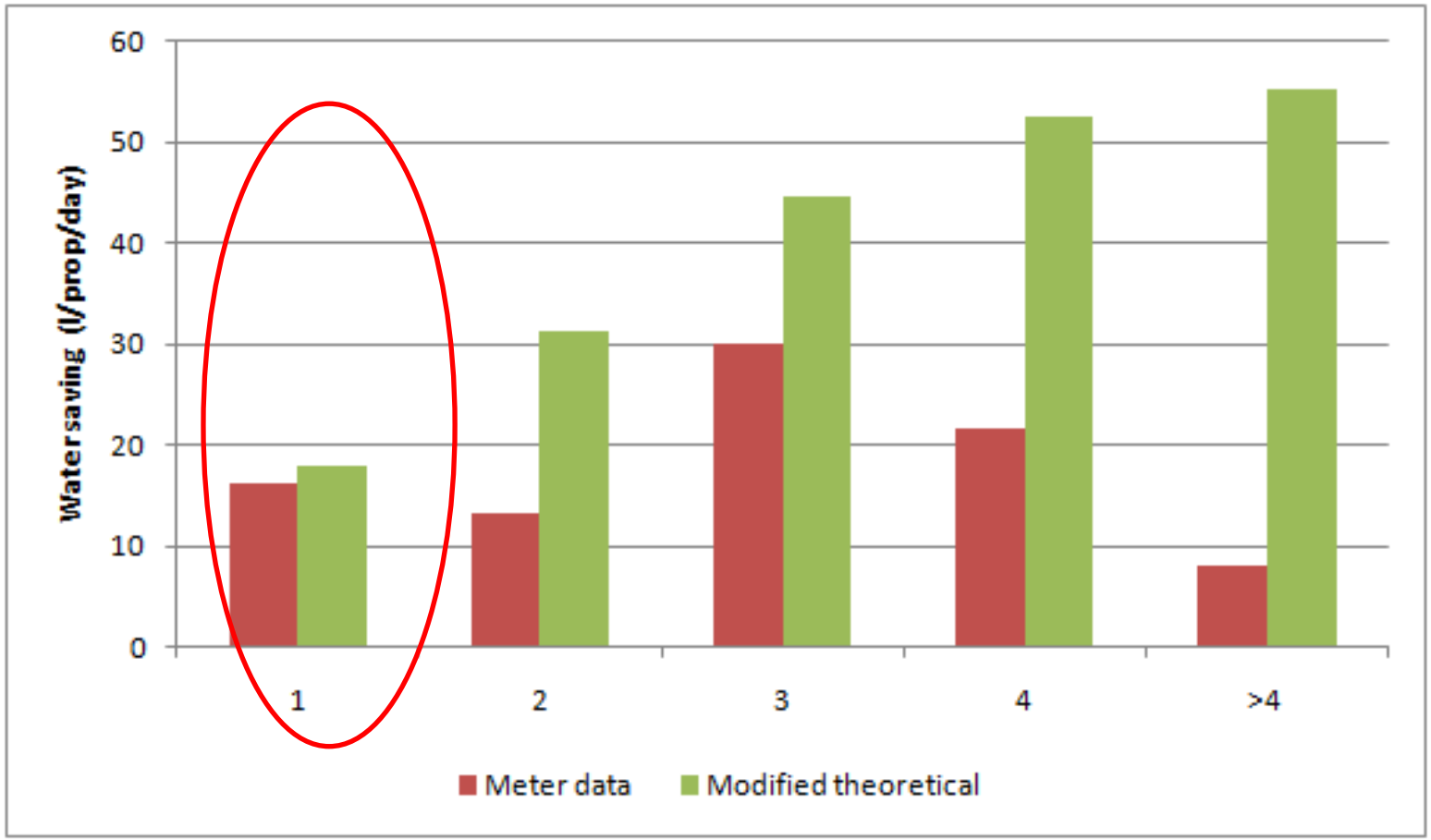
Artesia Consulting: Examining savings from 4 very similar projects

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

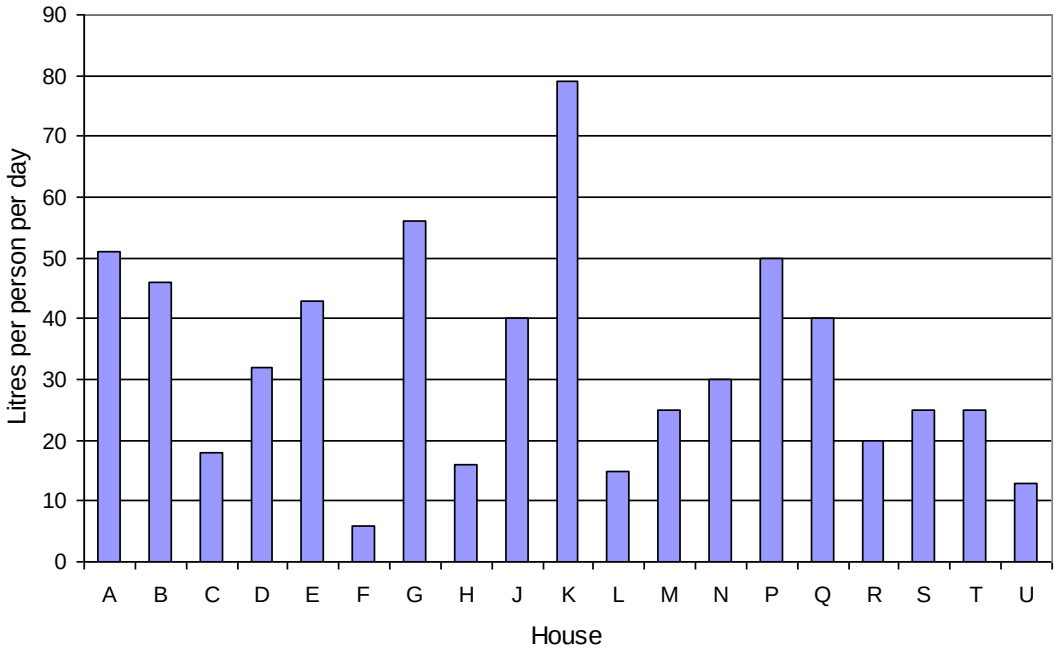
- to compare water use in the Heybridge water efficient homes with other similar new homes.
- to understand perception and behavioural patterns of water use and determine how these impact on the potential for future water savings.

In depth interviews

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

Heybridge

2004/5 Water Use for Baths and Showers

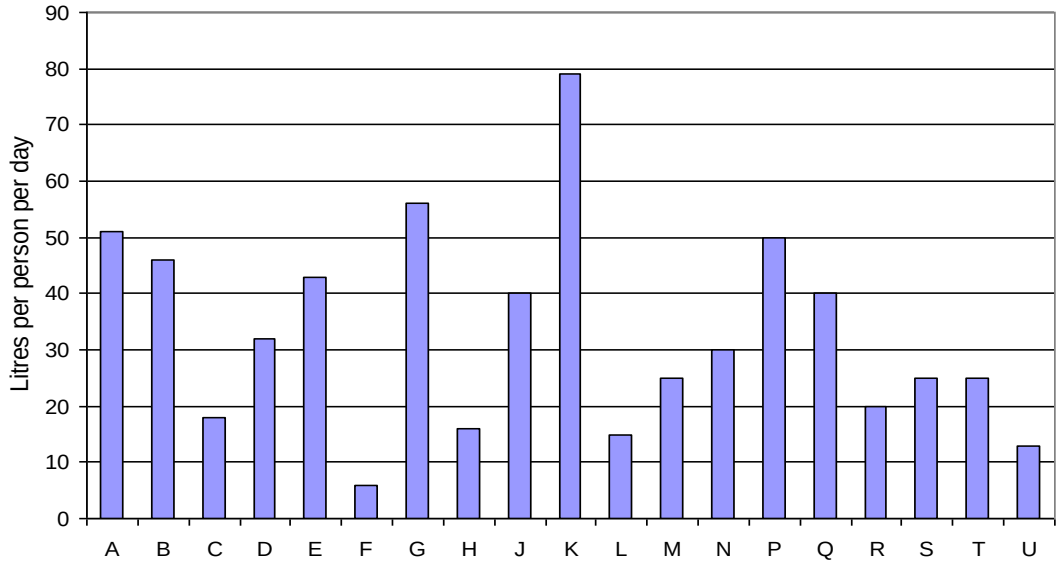


House F 6 l/hd/d

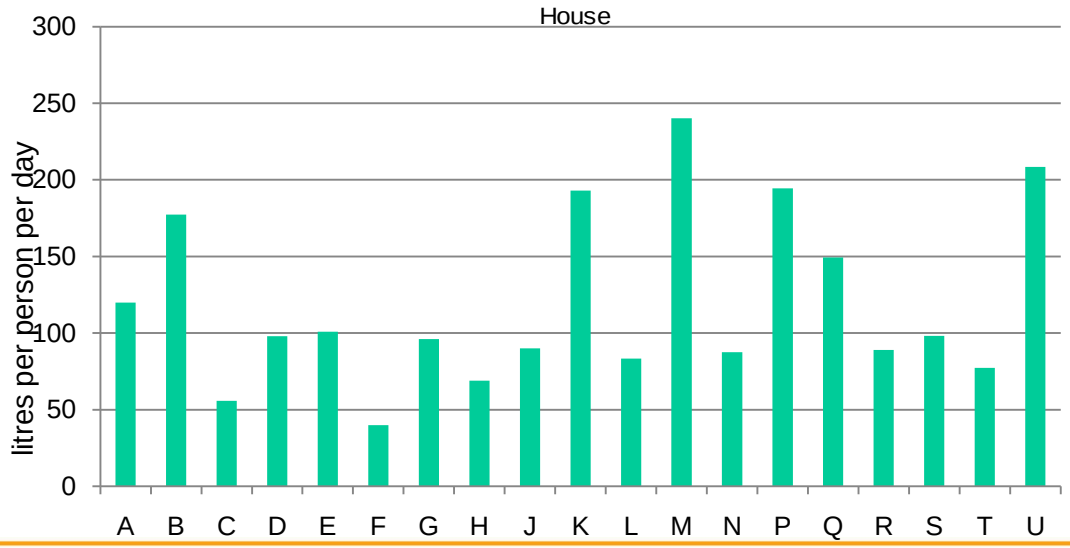
Bath/shower at relatives' unmeasured house

House K 80 l/hd/d

Always fill bath to overflow



Baths and Showers



Total Consumption

Social Norms

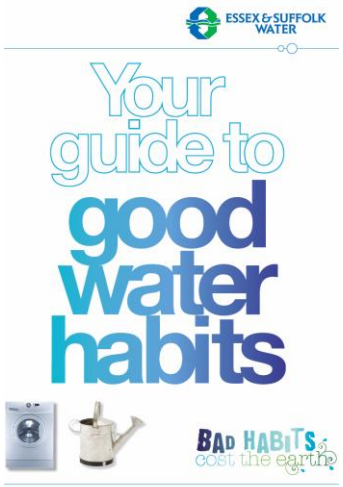
Where Next?

- **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



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