



Research into saving water - the experiences and perceptions of customers and their households

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1. Executive Summary

1.1 Introduction

Climate change and a growing population are putting pressures on Britain's current and future water supply, putting the onus on the water companies in England and Wales to manage water resources and demand for water more carefully and sustainably. It is in relation to managing demand for water that Ofwat published its report: '[Push, pull, nudge – how can we help customers save water, energy and money?](#)' in March 2011, which discussed how the sector can help customers use water more efficiently.

The report describes three different types of interventions which can encourage customers to use water more wisely. These are:

- **Push** factors which are about setting standards for water using devices. This includes the regulations that apply to water fittings and new homes;
- **Pull** factors which reward customers for using water wisely; and,
- **Nudge** factors which are about understanding consumer behaviour and using it to promote change.

The most obvious way to reward customers for using water wisely is to charge customers for what they use, so that they pay less if they use less. Installing water meters is one way in which water companies can manage water demand but about 60% of household customers in England and Wales do not have a water meter. Instead they have a bill for a fixed amount each year which is based on the characteristics of the property they live in (size, area etc.).

Evidence suggests that installing meters can reduce household water use by around 10%. Ofwat hypothesises that by introducing incentives or metered tariffs which reward water saving behaviour, the water companies could reduce their customers' water usage even further.

The Consumer Council for Water (CCWater) is keen to explore in more detail exactly what water saving activities households are engaging in and why. It is particularly interested in studying the water saving activities of metered households and the impact that adopting a meter has on their behaviour.

This understanding will inform CCWater's position on metering and on proposals for innovative tariffs/incentives which are designed to help manage or reduce water demand.

DJS Research was commissioned to conduct this research on behalf of CCWater.

1.2 Research method

A total of 42 family and paired depth interviews were conducted face-to-face, in-home at the following locations, which were in six water company regions:

Location	Water company
Dover and Ramsgate	Affinity Water South East
Norwich and Sheringham	Anglian Water
Leicester and Nottingham	Severn Trent Water
Plymouth and Torquay	South West Water
Stockport	United Utilities
Bath and Bridgewater	Wessex Water

The interviews were split among respondents who were engaged and not engaged in water saving activities. Most of the interviews were conducted among metered respondents (34 respondents) with the rest conducted with unmetered respondents (8 respondents).

The interviews were structured by lifecycle to ensure a spread of pre-family, family and post-family respondents were interviewed. Where possible all household members were interviewed.

The depth interviews ranged from one and one and a quarter hours in length. At the start of the interview, each member of the household was interviewed individually for about five minutes in order to explore their personal water saving behaviours. After this, the family or couple were interviewed together to explore and understand their behaviours and motivations in greater depth.

Following the face-to-face interview, respondents were asked if they would like to participate in a blog in order to challenge their water saving behaviours in more depth; 14 respondents volunteered to take part in the blog exercise.

1.3 Key findings

1.3.1 Water saving behaviours

Metered and unmetered households are participating in a variety of water saving activities. Water saving activities can be separated into three broad groups according to the frequency with which households practice them.

Although this was a qualitative project and so the sample was relatively small and not statistically robust, it appears that the water saving activities most commonly carried out (by more than eight out of ten households) are those that are the easiest to do:

- Turning the tap off while brushing teeth/shaving
- Only using the dishwasher/washing machine when full
- Using a bowl in the sink
- Not overfilling the kettle
- Fixing dripping taps
- Using a watering can to water plants

While those that are carried out by between three and five in ten households are:

- Using a bucket to wash the car
- Using a trigger on the hose
- Using a water butt
- Having shallow baths
- Having shared baths
- Using a water saving shower head

Activities that are least common (carried out by less than two in ten households) are those that are viewed as less appropriate or those that people are less aware of:

- Toilet Hippos (less appropriate because toilet cisterns have decreased in size)
- Tap inserts (low awareness)
- Shower timers (low awareness)
- Shower regulators (low awareness)

Most people believe that they do not change their behaviour drastically when they have a meter installed; optants are slightly more likely to make modifications to their behaviour than compulsory customers. People feel that they make slight modifications to their existing habits rather than radically overhauling their water usage completely.

1.3.2 Motivations & barriers to saving water

The main driver to save water is to save money on the household water bill among metered customers. Although some people talked about an 'environmental benefit' associated with saving water, it was clear that they were unable to articulate what this 'environmental benefit' would actually translate into.

Given that financial saving is the main motivator for metered customers, it is not surprising that receipt of each bill renews interest in saving water for a while. With this in mind, perhaps sending bills or updates on water consumption more frequently would help to motivate people to save water by keeping water usage top-of-mind.

It is apparent that the many water saving activities are habitual and part of day to day routines rather than a conscious decision to save water among both metered and unmetered customers. In fact often, the motivations people give for participating in a particular water saving activity are not related to water saving at all, but instead being to save energy or time.

The main barriers identified to adopting new water saving activities are:

- Need for convenience – water saving activities need to fit into customer's existing habits and any impact on quality of life should be minimal or the activities will not be adopted
- Lack of personal time and money
- Water saving is not perceived as important in comparison to cutting back on usage of other utilities
- Water is perceived as a plentiful resource and so people do not see the need to save it
- Water companies are not seen as playing their part in saving water with the perception that bursts are not attended to quickly enough, and so wasting much more water than individual customers can save.

Although most people feel that they are doing everything they can to save water, there was some interest in the new water saving devices they were previously unaware of and water butts.

Motivation to save water differs by life stage. Post families are the most engaged, having the most time and being more motivated to save water (they tend to be more frugal and care more about saving water for the next generation). Pre-families are the next most engaged as they are driven to save water in order to save money for other things. Families, on the other hand, appear to be the least engaged; their water usage tends to be habitual and they do not tend to make conscious decisions about water usage. It was clear in the research that future water saving behaviours are formed in childhood and therefore it is key to tap into this life stage in order to lay the foundations for future good behaviours.

1.3.3 Use of information about water saving

Most people do not actively look for information about water saving.

People do not expect to have to look up how to save water as they believe it is intuitive. They practice behaviours that they learned as children or from partners.

Even when, as part of this research, people were encouraged to look for information about water saving some were still reluctant to do so. Those who did look for information tended to 'Google' water saving as the first port of call.

Given that few are looking for water saving information it is not surprising that few are aware of water saving devices. And for those that do look, there is no guarantee that the sites they visit will provide information on water saving devices as they are not searching for this kind of information.

1.3.4 Tariffs & incentives to encourage water saving

The most motivating incentive to encourage people to save water would be money directly off the water bill. It was clear earlier in the research that people are motivated to save water by the potential to save money off their bills, providing additional money off the bill would reinforce this link.

A variety of incentives were also suggested to respondents (vouchers, days out, entry into a prize draw and water saving devices). The vouchers and water saving devices have some appeal. The vouchers system would need to be easy to use and redeemable in a variety of stores. The water saving devices are relevant but there was some concern about the longevity of the program because once customers had acquired all of the water saving devices offered as incentives, there would be no further engagement around saving water. However, as long as the water saving devices remain in place customers will continue to use less water.

The days out and entry into a prize draw were the least attractive. The days out are felt to be appealing only to families and even then appeal could be limited depending on the day being offered and the children's ages. Entry into the prize draw is seen by most as being an intangible incentive and so not really motivating.

Reaction to both of the tariffs tested (rising block and seasonal tariff) was negative overall. People do not like the concept of a tariff being used to influence their water usage. It is thought that both tariffs could unfairly penalise various groups in society. When pressed, respondents prefer the rising block tariff as they feel this is the fairer of the two; however, with many water

meters located in inaccessible places it would be difficult for customers to monitor their usage and adapt their behaviour to take advantage of the lower tariff.

1.3.5 Encouraging water saving

There is a clear deficit in knowledge and understanding of the impact of water saving. Although people may refer to an 'environmental benefit' no one talked in any detail about what that benefit would be so it appears that they did not know what the specific environmental benefits would be from water saving. In addition, there is clearly confusion as to why there is still a need to save water after one of the wettest years on record and when all of the reservoirs are perceived as being full. Consequently, in order to improve engagement in water saving, there is a need to educate and inform customers about the need to save water.

The need to educate about water saving is also apparent in the message cues that were identified.

There are three main messages that people expect to see communicated in a water saving campaign:

- 1 Saving water can save metered customers money
- 2 Informing customers about the potential impacts of saving water or not saving water
- 3 Practical ideas of how customers can make small changes and that these small changes have the potential to make big differences if everyone adopts them

Although households are already involved in water saving behaviours, for some their intention is not to save water specifically but to save energy or time and saving water is a supplementary benefit. Respondents recognise that in order to save more water they need to understand why they should be doing so and then to be encouraged to adopt additional water saving activities.

2. Background and Objectives

2.1 Background

Climate change and a growing population are putting pressures on Britain's current and future water supply, putting the onus on the water companies in England and Wales to manage water resources and demand for water more carefully and sustainably. It is in relation to managing demand for water that Ofwat published its report: '[Push, pull, nudge – how can we help customers save water, energy and money?](#)' in March 2011, which discussed how the sector can help customers use water more efficiently.

The report describes three different types of interventions which can encourage customers to use water more wisely. These are:

- **Push** factors which are about setting standards for water using devices. This includes the regulations that apply to water fittings and new homes;
- **Pull** factors which reward customers for using water wisely; and,
- **Nudge** factors which are about understanding consumer behaviour and using it to promote change.

The most obvious way to reward customers for using water wisely is to charge customers for what they use, so that they pay less if they use less. Installing water meters is one way in which water companies can manage water demand but about 60% of household customers in England and Wales do not have a water meter. Since 2010, water companies in seriously water stressed areas have been able to apply to the Secretary of State to adopt universal metering programmes and some have subsequently been granted permission to adopt them. Elsewhere customers can request to have a meter fitted and those moving into homes built since 2000 automatically get one; in some areas meters have been fitted in new homes since the early 1990s.

Evidence suggests that installing meters can reduce water use by around 10%. Ofwat hypothesises that by introducing incentives or tariffs which reward water saving behaviour, the water companies could reduce water usage even further. For example, recent tariff trials between 2009 and 2011 by Wessex Water (including a rising block and seasonal tariff) resulted in annual water use being reduced by 6% on average compared to standard metered charges¹. However, the reduction in usage was also associated with a lower level of customer satisfaction.

The Consumer Council for Water (CCWater), which was set up in 2005 as an independent body to represent the interests of consumers in the water industry in England and Wales, is keen to explore in more detail exactly what water saving activities households are engaging in and why. It is particularly interested in studying the water saving activities of metered households and the impact that being metered – either by choice or through compulsory metering - has on their behaviour.

¹ Towards sustainable water charging – conclusions from Wessex Water's trial of alternative charging structures and smart metering 2012 wessexwater.co.uk

This understanding will inform CCWater's position on metering and on proposals for innovative tariffs/incentives which are designed to help manage or reduce water demand.

To this end, CCWater commissioned DJS Research Limited to undertake a piece of research into consumer experiences and perceptions of saving water.

2.2 Aims & objectives

The business objectives as stated in the brief are:

- To inform CCWater's views on company charging schemes, and on proposals for innovative tariffs/incentives which are designed to help manage/reduce peak demand for water;
- To provide evidence on the type of measures metered customers have actually put in place as a permanent habit as a consequence of opting, or in response to, being switched to a water meter;
- To provide evidence on where people get their information about saving water and what has worked successfully for them;
- To inform CCWater's position on metering and the potential for it to help families struggling to pay, manage their bills.

In detail, these are:

- To explore what water saving activities households are engaged in;
- To understand why they have chosen to do what they do to save water;
- Understand the interaction between bill-paying water savers and other non bill-paying family members in terms of reducing overall house water use.
- To explore whether households have engaged in water saving activities because of the installation of a meter, or have they always been water aware?
- To explore if water saving activities have changed because of a meter installation;
- Understand how water saving households feel about their activities e.g. – sense of satisfaction/achievement, monetary reward, recognition for what they do, what keeps them going/motivated;
- Understand where these households get their water saving information from;
- Understand whether the information they found met their needs, or how it could be improved;
- Understand which water saving activities they felt they could not take on, and why;
- Establish how easy/difficult it was to adopt each activity, which activities were most easily sustained and why;
- Establish which water saving activities, if any, were not sustained and why;
- Understand for those that have tried to save water but found it too hard, or gave up – explore what happened and what would have helped/enabled them to carry on to make a long term change;
- Understand how households view the financial incentives of using less water and how these trade off against the potential for future price increases;

- Understand whether water saving results in a feeling of being in control of the bills.
- For those households where being on a water meter did not encourage them to engage or rethink their water use, we would want to understand:
 - why this is;
 - whether there are differences in how someone came to be metered i.e. by choice or not by choice;
 - what might persuade them to engage;
 - what incentives, if any, they have responded to in the past which have led to a change in routine behaviour.

2.3 Research method

A qualitative approach was adopted during the research, comprising of 42 face to face in-depth interviews, each lasting one and one and a quarter hours.

Interviews were conducted with domestic customers including a number of vulnerable customers (defined as those in receipt of certain benefits/tax credits and/or who struggle to pay their household bills and or/ who have themselves/another member of the household has a long term impairment or illness).

One of the main aims of the research was to provide evidence on what measures metered customers have put into place, so the research and sample was heavily weighted towards metered households. For more detail, please see Section 2.4 on Sample Structure.

Pilot interviews were conducted with 2 metered and 2 unmetered households to test the discussion guides prior to the main fieldwork period. No changes were needed to the guides following these interviews.

The research covered a mix of pre-family, family and post family/retired households. Wherever possible, all members of the household were interviewed, including children aged 7 or over. This was to ensure that the research not only captured the views of bill payers but also the views of non-bill payers.

On recruitment, each household member was asked to complete a diary detailing their water usage over a 2-3 day period (see example below) – they were not told that the research was specifically about water saving behaviours. The purpose of the diary exercise was to collect recorded evidence of individuals' behaviours prior to the discussion, in case their views became biased upon hearing that the discussion was about water saving as opposed to general water usage. It was also in case they became influenced by the views of other family members.

Day: Wednesday
Date: 13th February

Please act as you would do normally and do not try to change your habits for this diary.
Please record each time you use water or a device/machine that uses water (e.g. dishwasher, washing machine). Please write down what you did and if appropriate how long it took you.

Morning
Flush Toilet, Wash hands. Cup of coffee Shower (3mins) Clean Teeth. Wash Breakfast pots in sink Rinse Breakfast pots, Wipe work surface Water + cloth. Washing Machine 5 load 50mins (White wash) Flush Toilet, Wash hands.. Washing Machine 5 load 50mins (Coloured wash) Scrub Potatoes, Wash vegetables Cook Vegetables in water.
Afternoon
Lunch - glass of water + cup of coffee. Wash lunch pots in sink. Boil Water for cup of tea Wash kitchen floor. Flush toilet wash hands. [Tea for grandchildren - boil vegetables & pasta in water Wash pots and 3 pans and oven dishes make hot drinks for children 2x tea.]
Evening
Tea - to drink Water to boil egg. Coffee to drink. Wash tea pots - rinse Toilet Flush, Wash hands Water to drink - one glass Flush Toilet, Wash hands. Brush Teeth (3mins) Wash self (10mins) Water for night - small bottle.

Prior to the main interview taking place, the interviewer spent 5 minutes talking to each family member about their diary entries so as to gain views which were independent of the rest of the family.

2.4 Sample structure

The sample represented a cross section of households, taking into account:

- Life stage: pre family, family and post family/retired
- Presence of meter or not
- Whether households had opted to have a meter or whether they were metered but not through their own choice i.e. by way of a compulsory metering programme or by moving into a property which already had a water meter
- Length of time metered
- Whether the respondent was actively engaged in saving water or not²
- Socio Economic Grouping³ (including some low income families⁴)
- Geography – representation of seriously stressed water areas and low to medium stressed areas

² This was ascertained by asking respondents to rate on a scale of 1 to 10 how much they felt their household saves water where 1 means they save nothing at all and 10 means they make every effort to save all they can. Anyone providing a rating of 7 or more was recruited as 'actively engaged'.

³ Socio Economic Grouping was based on the occupation of the main income earner of the household, please see the recruitment questionnaire in the appendix for category groupings

⁴ Low income families were those on one or more of the following: Council Tax Benefit (not the single person allowance), Housing Benefit, Income support, Income-based Job Seeker's Allowance, Child Tax Credit (other than the family element), Pension Credit and Income related Employment and Support Allowance

The sample structure achieved is detailed in the table below:

Table 1: Sample structure

Region	Actively engaged in water saving			Not actively engaged in water saving			Total Metered	Unmetered
	Pre-kids	Families	Post kids	Pre-kids	Families	Post kids	Total	Total
South East – Dover/Folkestone (5 compulsory)	1	1	1	1	1	0	5	2
Eastern – Norwich/ Sheringham (3 compulsory/4 optants)	0	2	2	1	1	1	7	1
Western – Bath/ Bridgwater (3 compulsory/4 optants)	1	2	2	1	1	0	7	1
Midlands – Leicester/ Nottingham (3 compulsory/4 optants)	1	2	2	1	1	0	7	1
Western – Torquay/Plymouth (2 compulsory/6 optants)	1	2	1	1	2	1	8	1
North West - Stockport							0	2
Total	4	9	8	5	6	2	34	8

Following the face to face depth interviews, respondents were invited to participate in a blog where questions were posted daily in order to stimulate discussion.

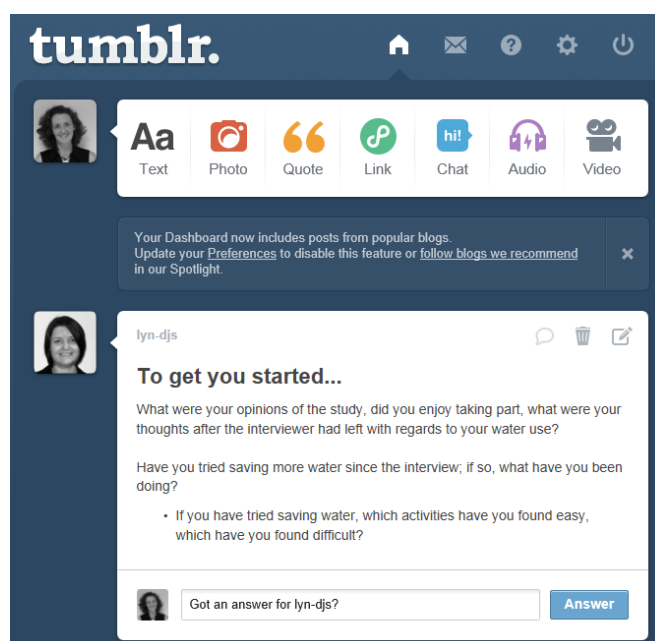
The blog asked them what they thought about the interview and how their daily water use had changed since they were interviewed, if at all.

We also challenged participants to save more water and asked them what they did, how easy or difficult it was to implement and where they looked for any information on how to do this.

Fourteen respondents took part in the blog, with a mix of lifestyles and regions:

- Pre family – 2
- Family – 9
- Post family – 3

- Eastern – 1
- Midlands – 5
- South West – 2
- Western – 5
- North West - 1



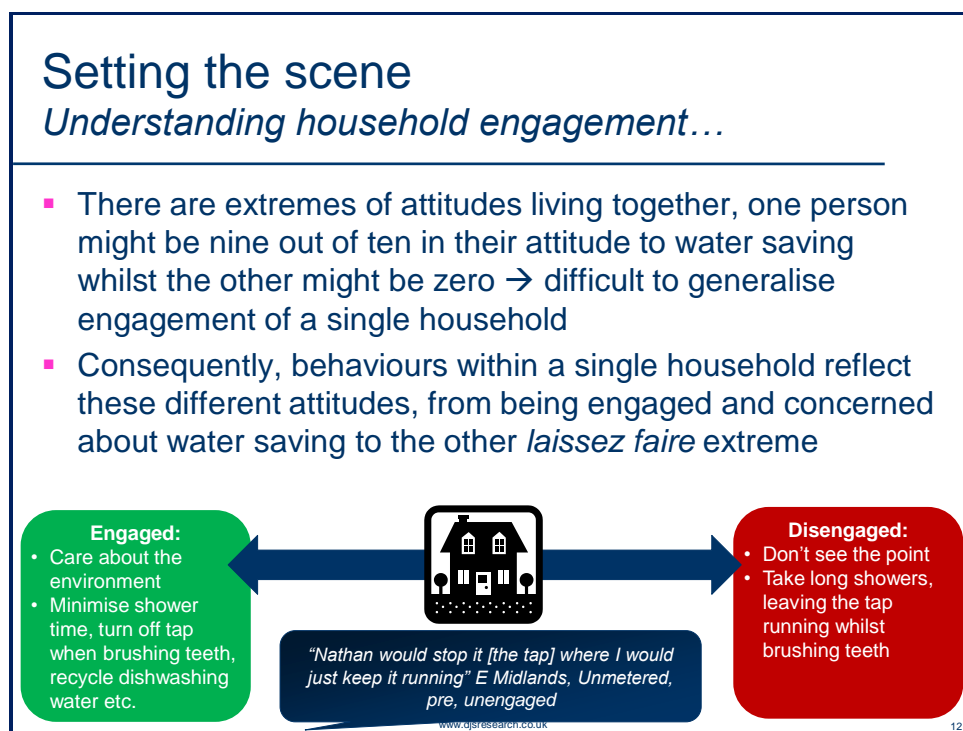
2.5 Understanding household engagement with saving water

For recruitment purposes, households were recruited as being either ‘actively’ or ‘not actively’ engaged with saving water as CCWater was interested in capturing the views of both groups. Whether a household was engaged or not was based on the opinion of the household member initially contacted about participating in the research (this was generally the bill payer).

On embarking upon the fieldwork, it became apparent that there are instances where people with polarised attitudes to saving water live in the same household. In some cases it is adults who have opposing views; indeed we interviewed a household where the male rated himself ‘zero out of ten’ in terms of being environmentally conscious whilst his wife rated herself ‘nine’! In other cases, and more commonly, differences lie between parents (the bill payers) and their children (especially teenagers).

It is therefore difficult to generalise about the engagement of a single household, as shown in Figure 1 below.

Figure 1: Understanding household engagement with saving water



2.6 The nature of the discussions

Following short 5 minute discussions with individual members of the household about their water usage, all members were brought together to talk about what they do to save water. To aid the discussion, respondents were shown a set of cards which illustrated a range of different water saving activities (see Appendix 4).

As respondents discussed the range of different water saving activities, the interviewer recorded which activities each family member participated in (please refer to Table 2 in Section 3.1 to see the output of this exercise).

During this discussion, respondents talked about how they had come across each of the water saving activities, how easy they were to implement and which they felt was most effective. They were also asked to talk about what made them embark upon each one.

This led onto a more general discussion about motivations for saving water and what incentives or tariffs might encourage them to save more water.

Copies of the discussion guides and the stimulus materials are provided in the Appendices.

Verbatim quotes have been used to illustrate the findings in respondents' own words. They can be found in *italics* throughout the report. Each quote is attributed in terms of water company region; whether the respondent was compulsorily metered, had opted for one or was unmetered; life stage (pre/family/post) and whether they were engaged or unengaged with water saving.

The findings reported in this document are qualitative rather than quantitative and thus should be treated as broadly indicative of the range of customer views and opinions. They should not be generalised to the wider population of customers. Instead, the findings are best considered as hypotheses as opposed to definitive statements about the way customers think about the issues.

3. Water Saving Behaviours

3.1 Water saving behaviours

One of the main aims of the research was to provide evidence on what metered customers have adopted as a permanent habit as a consequence of opting for, or being switched to a water meter. These are compared here with those for unmetered households.

Prior to the interview, respondents completed a 'water usage' diary for 2-3 days. The details of the diaries were discussed with each household member who had completed a diary on a one to one basis, before all members were gathered together to discuss water saving in more detail.

To aid discussion, respondents were shown a series of water saving measures and asked who in the household, if anyone, had taken up each measure. The interviewer recorded this information and it can be found in Table 2 over the page. They were also asked about their underlying reasons for each water-saving activity in order to understand whether the primary motivator was to save water or something else.

Summary

- All households in the sample, whether recruited as engaged or not actively engaged with saving water are participating in a number of water saving activities
- Households which are not engaged tend to adopt easy water saving activities although not consciously to save water
- The most common water saving activities are everyday activities that tend to be easy to do and are part of peoples' routines. These are:
 - Turning the tap off while brushing teeth/shaving
 - Only using the dishwasher/washing machine when full
 - Using a bowl in the sink
 - Not overfilling the kettle
 - Fixing dripping taps
 - Using a watering can to water plants
- These activities are common to metered and unmetered households, they appear to be slightly more prevalent among engaged households
- The least common activities involve the use of water saving devices (use is similar regardless of the level of engagement). Barriers to using water saving devices are: low levels of awareness; a lack of understanding; questions as to whether items can be used with certain fixtures and fittings and the fact that proactive behaviour is required to order/install the items.
- Many water saving behaviours are embedded in peoples' routines and on becoming metered, most feel that they do not change their behaviour radically and that instead they 'tweak' it – with optants being slightly more likely to make changes to their behaviour than compulsory customers. Across the sample, only a few talked about doing something more proactive such as acquiring water saving devices and water butts.

Table 2 below shows the number of households that participated in each of the water saving behaviours. It is worth noting that in some cases, not all family members were participating in an activity.

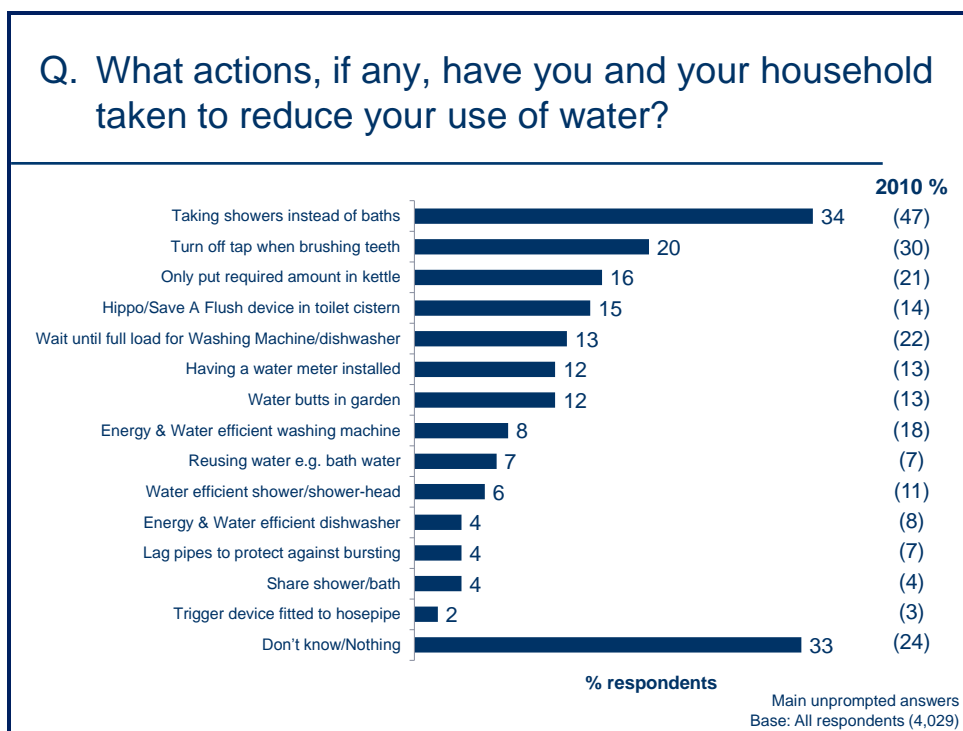
Table 2: Uptake of water saving behaviours by household

	Optants (n=17)	Compulsory (n=17)	Total metered (n=34)	Total unmetered (n=8)
Turn tap off while brushing teeth/shaving	17	15	32	7
Dishwasher/wash machine when full	17	15	32	6
Bowl in sink	16	14	30	6
Not overfilling the kettle	16	13	29	7
Dripping taps	17	12	29	6
Watering can	14	14	28	6
Bucket to wash car	12	6	18	5
Trigger on hose	13	4	17	5
Water butt	11	6	17	2
Shallow baths	9	6	15	5
Shared baths	4	7	11	5
Water saving shower head	4	6	10	2
Toilet Hippo	4	3	7	1
Tap inserts	1	3	4	0
Shower timer	2	1	3	1
Shower regulator	0	0	0	0

To put the above figures into context, nearly all respondents had a garden (40), a shower (39) or a car (38). However, less than half had a dishwasher (18).

Table 2 has many similarities to those reported in CCWater’s 2011 Annual Tracking Survey (see Figure 2 below). In response to the unprompted question ‘*What actions, if any, have you or your household taken to reduce your use of water?*’ turning off the tap when brushing teeth; only putting the required amount in the kettle and waiting until a full load for washing machine/dishwasher, were recorded in the top five behaviours, alongside installing a Hippo device in the toilet cistern and taking showers instead of baths. The latter isn’t listed in the table above although it becomes clear during this section of the report that most people prefer to take showers although not necessarily as a water saving method.

Figure 2: Actions taken to reduce water usage (2011 Annual tracking survey⁵)



⁵ CCWater Annual Tracking Survey 2011
Consumer Council for Water - Research into Saving Water; the Consumer Perspective

Figure 3 below separates the water saving behaviours listed in Table 2 into 3 groups according to the frequency of household uptake i.e. those that most households participate in (to the left of the chart), those that between three and five in ten households participate in and those that two in ten or fewer participate in. The activities that fall into these categories are as follows:

Figure 3: Uptake of water saving behaviours



The water saving behaviours to the left of Figure 3 (e.g. brushing teeth, boiling the kettle, washing dishes/clothes) are the most universal and appear to offer the easiest opportunity for people to save water. Engaged households appear to carry out water saving activities slightly more than those households that are not engaged, with for example all engaged households turning off the tap when brushing their teeth or shaving as compared to only about eight out of ten households which are not engaged.

The water saving behaviours to the right of Figure 3 are all associated with installing/using water saving devices. Tap inserts, shower timers and shower regulators are relatively unknown and so not surprisingly few people were using these devices. Whilst more widely known, installing a Hippo in a toilet cistern is less common amongst our sample with many owning toilets with modern cisterns/dual flush. Notably, in the research, participation in these behaviours seemed to be unrelated to the level of engagement with similar levels of adoption between engaged and unengaged households.

Each of the behaviours in Table 2 and the motivations behind them will now be discussed in detail.

3.1.1 Turning the tap off whilst brushing teeth/shaving

Almost everyone is turning off the tap when brushing their teeth or shaving. Metered and unmetered alike are turning the tap off as are the different life stages. Only those who do not

care about water saving are not turning the tap off when brushing their teeth or shaving, these people are at the extreme of being disengaged.

For many, this has been embedded in them for years, having been taught by their parents

“Yes, force of habit. My mother was like – ‘you always turn the tap off in between’.” South East, compulsory, pre, engaged

Others have been converted since moving in with a partner:

“You didn’t used to do it ‘til you met me” Western, compulsory, pre, engaged

In these instances the motivations of parents and partners are a combination of not wanting to be wasteful, not wanting to waste water specifically and a desire to save money.

One or two have been influenced by their children (in these instances the children have covered water saving at school):

“I used to do that when I was little but now I don’t. There was a talk in school about it and I came home and told mum and dad.” North West (10 year old) unmeasured, family, engaged

For a minority, getting a meter prompted them to review their behaviours and turning the tap off was an obvious means to save water. Seeing water running down the sink is seen as clearly being very wasteful.

“I do it for water saving purely and simply, I’ve been doing it since we had a water meter so five or six years” Western, compulsory, family, not engaged

3.1.2 Only using the washing machine / dishwasher when full

Everyone had a washing machine but less than half had a dishwasher.

Almost everyone waits for the **washing machine** to be full before using it. However, their motivations for doing so are primarily to save time and energy rather than water:

“The washing machine, that is more, probably...just convenience and not having to do the wash too often...I don’t really consider the water saving element.” Western, compulsory, pre, engaged

“The washing machine takes so long to do a full cycle that it may as well go on full.” Eastern, compulsory, family, not engaged

“If I do this I save electricity & I’m probably saving water as well.” Eastern, optants, post, not engaged

Other reasons for only using the washing machine with a full load are to save on washing powder, to save water (which often comes hand in hand with saving money) and just because it’s habit.

Only a few households are doing small loads and they tend to run them on a small cycle. Small loads are being done for specific reasons, for example people who wear a uniform for work may need to wash their uniform for the next day.

Those using **dishwashers** are also waiting until they are full before using them, hence, small households in particular are using them less often than they would do the washing up by hand.

One or two respondents had bought what they assumed were water efficient washing machines or dishwashers. They knew that the ratings were 'A' but did not know whether this related to energy only or both energy and water.

"I am using the dishwasher most days at the moment. It's getting quite full because I'm on this diet where I'm not eating any processed foods. Basically I'm doing all my own stuff. So I'm using a lot of utensils. If there was only a couple of plates I'd wash them in the sink, but at the moment I'm using it quite a lot." Midlands, post, optant, engaged

"I don't use them unless they are full. We go through dishwashers like nobody's business because in the summer it is on every minute of the day with 15 guests to look after... we wouldn't run it if it wasn't full." Anglia, post, optant, not engaged

3.1.3 Using a bowl in the sink when washing dishes

Most households are using a bowl in the sink to wash up but their motivations are not really to save water.

When asked why they use a bowl in the sink some are unable to say why, they are clearly doing so out of habit.

"Use a bowl to wash up – always. My daughter says she does too – it's just the way it's always been done." South East, unmeasured, family, engaged

The main reasons given for using a bowl in the sink include:

- Their mum did it (most common reason)
- To protect the dishes
- To stop the sink getting scratched
- Hygiene
- To be able to pour dregs down the side of the bowl
- To save energy (less hot water is needed to fill a bowl and a bowl retains the heat better than a cold stainless steel sink)

"It just feels right to use a washing up bowl, it saves you energy" Anglian, compulsory, family, not engaged

"Because it saves water, and I've never liked the idea of when you wash up, your pots and pans scrape on the sink itself... so it puts metal marks on the bottom and they've all got to be cleaned up and everything." Affinity, optant, post, engaged

3.1.4 Not overfilling the kettle

Most people are not overfilling the kettle but people do not see this behaviour as primarily water saving. The main reason for not overfilling the kettle is to save energy.

“It’s probably more to do with energy efficiency” Western, optant, post, engaged

Second to saving energy is saving time - it is quicker to boil a small amount as opposed to a full kettle.

“It’s quicker to boil small amounts rather than large amounts.” North West, unmetred, post, engaged

For a minority it is either habit or they are consciously saving water.

Two or three respondents had purchased ‘one cup’ kettles to force them to only boil one cup’s worth of water – the key driver here was the money to be saved by saving water/energy.

Notably, some people are overfilling the kettle when they boil it but they are not pouring away the excess water each time. They are re-boiling the remaining water each time until they have used it all. Thus, these people feel they are using water in the same way as those who are not overfilling the kettle.

3.1.5 Fixing dripping taps

Almost everyone gets dripping taps fixed quickly (metered and metered customers).

It is the ‘dripping noise’ which is annoying and which motivates people to fix dripping taps rather than the water wastage as such. Nevertheless, the water wastage and the financial impact of this is motivating for metered customers.

“I wouldn’t say I would do it the same day, but I would replace the washer.” Western, optant, post, engaged

“Yes, I wouldn’t let it go on....That’s [the dripping] annoying me at the moment so I’ll have a look at it this afternoon.” North West, unmetred, post, engaged

One or two respondents will put a bucket or bowl beneath a dripping tap to collect the water rather than let it go to waste, but this is not the norm.

3.1.6 Using a watering can to water plants in the garden

Most respondents had a garden and were using a watering can to water their plants. Respondents recognised that using a watering can is a way to save water.

Most have been using a watering can to water their plants for years and so it has become habit/part of their routine. Those with water butts tend to use them to fill the watering can rather than a tap.

*"We lived in a flat before this so we didn't have a garden, once we moved here we just got used to using a water butt and a watering can, it just makes sense"
Eastern, compulsory, family, engaged*

For a minority, using a watering can was prompted by them getting a water meter.

A few explained that they use a watering can because they have a small garden and they don't think it's worth getting out the hose. Others explained that they do not want to damage the flowers by using a hose and so they prefer to use a watering can instead.

In addition, a few respondents are recycling their dishwashing water by pouring it onto their garden plants. In particular, post family respondents tend to be recycling their dishwashing water more than others.

*"I was told to put soapy water over the roses – it keeps all the fungi off."
Midlands, optant, post, engaged*

3.1.7 Using a bucket to wash the car

Among those who wash their car themselves, a bucket is used for at least part of the process. After which, around half are still using a hose to rinse off the car but others are using buckets of water to rinse off as well. In addition to saving water, there is a perception that using a bucket to clean the car produces better results than just using a hose.

*"Yes absolutely. We don't rinse with the hose either"
Western, optant, post, engaged*

*"Cleaning the car: use only half a bucket of water, followed by very sparing use of a hosepipe to rinse it."
Western, optant, post, engaged (Blog)*

A few who are particularly water conscious are using water from the water butt instead of from the water main.

A handful of respondents (all female) were not washing their cars themselves, taking their car to the car wash instead. They were of the view that they were saving time, water and money by using the car wash, not to mention the fact it was perceived to be easier.

*"Car wash - saves water usage at home! And time saving!"
Western, compulsory, pre, not engaged*

3.1.8 Trigger on the hose

Not everyone has a hose (about half those interviewed had one). Those who do have one tend to use them infrequently or not at all.

*"We don't use it a lot unless there's no water in the water butt...but hoses cost a lot."
Eastern, optant, post, not engaged*

*"We don't use the hose very often, there is a trigger on the end, but there are too many kinks in it nowadays."
Midlands, optant, post, engaged*

“Before we had a meter we used to go out to the beach all day and leave the garden hose on with the sprinkler attached. We would be watering the lawn for 5 or 6 hours. We would come home, take it out to the front garden and leave it on for another 5 or 6 hours.” South West, post, optant, engaged

Hoses tend to be associated with high water usage and cost, consequently people are averse to using them. Equally, people are irritated when they see others using hoses or sprinklers – metered people in particular question whether those using hoses are also metered and so whether they are paying for this water usage.

Those with a hose expect to have a trigger on it. The trigger helps to direct the jet of water as well as turn it on and off – it is the directional aspect that is the key motivator.

The quote below is from an unmetered respondent in the North West

“The trigger on the hosepipe, I didn’t really think about the quantity of water. Really it was to direct the water to where you wanted it to go.” North West, unmetered, post, engaged

Hosepipe usage was more prominent amongst unmetered respondents, who don’t need to worry about how it will impact on their bill

“He does that, he power hoses the front and the back, so probably does that three or four times a year.” North West, unmetered, family, engaged

There were no regional differences in hosepipe usage with low to medium stressed areas as averse to them as seriously stressed areas such as the South East.

3.1.9 Water butts

About half the metered respondents and a quarter of the unmetered respondents are using water butts. Optants and post families seem to be a bit more likely to have water butts than others. There is a correlation between life stage and opting for a meter, with many opting for a meter once the children have grown up and left home; and gardening is an interest enjoyed by many post family households. In addition, water butts are viewed as an effective and easy way to save water and money and purchasing a water butt was a measure taken by a number of respondents on converting to a meter.

“If you’ve got a water butt...you get so much rainwater in a water butt and they’re not expensive and it’s so easy to just stick your watering can underneath, rather than using a hosepipe, collect the water. Plants don’t need fresh water they can have rainwater.” Midlands, optant, family, engaged

“When I do the garden we have a water butt outside and I always fill buckets and other containers with water from that as well.” Midlands, optant, post, engaged

Owning a water butt seems to be an inherited behaviour, with respondents recalling having grown up with water butts in the garden as children and so putting them in their own garden was a natural step.

“My dad always did it; he had about 6 water butts in his garden. Our one has been there since I moved in 10 years ago. It was one of the first things I had installed.” Anglia, compulsory, post, engaged

For those who do not have water butts in the garden there are several barriers to this, with the main one being the size, especially for those with small gardens.

Some do not think that water butts are aesthetically pleasing, whilst others perceive them to be expensive.

“They’re not very nice to look at are they? My neighbour offered me one and I said no. I thought where’s that big black thing going to go?” North West, unmetered, post, engaged

One or two respondents said they would not know what to use the water for outside because they do not have plants that need watering in the garden. A further respondent perceived that the water in their inherited water butt was stagnant and so not good to use.

“I don’t know what I’d use it for, I don’t know, I haven’t really got a need. I’ve only got shrubs and they don’t need watering, otherwise the car perhaps but I wouldn’t know what to use the water for otherwise.”

Those who are using water butts feel that a good way to encourage people to save water would be for the water companies to give away water butts.

3.1.10 Shallow baths

Relatively few people are taking baths (14 out of the 42 households). Most prefer to shower, not to save water specifically, but out of personal preference and because of the time and energy required to run a bath.

The type of bath people take is function driven. Shallow baths tend to be associated with regular bathers who are using the bath to wash relatively quickly and then get out. Those without a shower tend to fall into this category (such as Council tenants).

“We only have one really deep bath a week and the rest of the time we just jump in and out because we haven’t got a shower” Western, compulsory, family, not engaged

“I have always done that. I just want to be soaked for a few minutes and then I’m out and I’m happy when I’ve done that” Eastern, optant, post, not engaged

On the other hand, those who bath occasionally tend to take deeper baths for relaxation and enjoyment. These people are not prepared to compromise on the quality (depth) of their bath to save water.

“I had a deep bath on Saturday because I’d been out in the garden – to soak my muscles.” Western, unmeasured, post, engaged

“Well once in a blue moon if I have a bath, I’d have a bath. I wouldn’t just have an inch of water, I’d have it up to my neck basically.” E. Midlands, optant, family, engaged

Teenagers also tend to take deeper baths, but more regularly and it is difficult to control the depth of their bath. Added to which, they:

- Tend not to think about water or energy consumption
- Have more time to bath
- Play more sports and bathing eases muscle soreness

Adults doing a lot of sport, or physical and manual work also tended to bathe more often and to take deeper baths to ease their muscles.

“My husband would never have a shallow bath. You can shower if you just want to get clean. But if you have a bath it has to be deep. He would find it difficult, it’s ingrained into him, it’s to do with his work – what he’s always done.” South West, family, optant, not engaged

3.1.11 Shared baths

Like shallow baths, bath sharing has been impacted by more people now preferring to shower instead. In addition, it may be that one person in the family is prepared to share a bath but others may not want to.

Bath sharing is more common among children; it is viewed as a convenient way to get children clean. However, there comes a time when children will no longer share the bath with each other (the age of 10 was mentioned). After this time the water and energy consumption of children becomes harder to manage.

Some adults share a bath but not always to save water – it is viewed as a way to spend quality time together. Others will share bath water but not at the same time i.e. one after the other.

“It’s something we’ve done all of our lives. The boys have always gone in after one another.” Western, unmetered, post, engaged

The main barriers to sharing baths are:

- Not being able to agree who goes in the bath first or last
- Bathing is associated with relaxing and sharing is seen as functional

“We couldn’t get on with it we’d ask who’s going last.” Western, compulsory, family, not engaged

“If I had a bath I’d want it with bubbles, warm and I wouldn’t want someone else’s water.” Western, post, compulsory, not engaged

3.1.12 Water saving showerhead

Relatively few people were aware of the water saving showerhead or water saving devices per se.

Some thought that they had one installed, although they were not sure (they looked at the picture and felt it looked like their showerhead). Others had never heard of it.

Among those who did not have the water saving showerhead, there was concern that it would impact the performance of the shower if they did install it, in terms of the flow of water coming out.

Only a handful did not have a shower and so the showerhead is irrelevant to them. While those in rented or council property felt that installing devices like this are the responsibility of the landlord and not them.

“We haven’t got a shower – the council said we’d have to pay for the pipework – it’s a council flat – whatever you put in or take out, you’ve got to put it back when you leave.” E. Midlands, unmetered, pre, not engaged

When asked what other measures they could take to save water, only a small proportion of respondents said they would try the water saving showerhead:

“I would try something in the water system and see how it worked. And if it wasn’t any good then I would not use it. I would try and use that [water saving shower head].” South East, compulsory, pre, not engaged

3.1.13 Toilet Hippo

Whilst awareness of toilet Hippos is higher than for the other water saving devices, usage is relatively low.

Toilet Hippos are perceived as unnecessary because:

- Cistern sizes have decreased and so there is no need to decrease the water volume further with a toilet Hippo
- Modern toilets have a dual flush enabling the water volume to be decreased
- Some have consciously purchased water saving cisterns and so there is no need to reduce the water volume further with a toilet Hippo or a variation of one.

Some respondents recalled using a toilet Hippo in the past but the effect had reduced the water volume so much that they had needed to flush again, which, not surprisingly, they felt was counter-productive.

“The upstairs one is not [a dual flush loo] – I put a filled up bottle of water in it which takes up more volume. The downstairs toilet is a dual flush one, it’s newly fitted.” Western, optant, family, engaged

*“We thought about it but I think the displacement isn’t as much. With those you always end up flushing the loo twice so it would affect the quality of the flush”
Western, optant, post, engaged*

3.1.14 Tap inserts

Only four metered households claimed they were using tap inserts. They tend to be of the view that because they have new taps they are automatically included within the tap.

“I think we might have one in the kitchen that we bought – it’s a modern mixer tap.”

Most people are not aware of tap inserts and they do not understand how they could work. They are concerned that they could reduce the water pressure and as a consequence that it would then take longer for the sink to fill up.

Nevertheless, around one quarter of people are interested in trying the tap inserts. If they impacted negatively on the water quality they would simply remove them.

“We’ve not got tap inserts – I’ve never seen them before.” Midlands, optant, post, engaged

“The water here is not very high pressure anyway... I’d have to look into it to see how it affected that” Western, compulsory, family, not engaged

One respondent, who was a plumber, explained that the local water company run promotions for tap inserts periodically. Following the campaign, he would be asked by his customers to fit the tap inserts:

“Bristol Water, they do a promotion pack every so often and drop it round to all the local households, to try and entice people into using them. I get asked by customers to fit them, and you attempt to fit them and hopefully they do, most of the time they don’t. So there are people out there that do want to use them, it’s just whether it fits a particular tap” Western, optant, family, engaged

3.1.15 Shower timer

Very few households had a shower timer and awareness of them is low.

Consumers commonly spend between 5 and 10 minutes in the shower. Showering is part of peoples’ routines and is seen as a convenient alternative to bathing – it takes longer to fill and take a bath. On the whole, it was not perceived as a water saving measure.

Whilst most people will spend 5-10 minutes in the shower, there are exceptions. There were respondents (particularly teenagers) spending up to half an hour in the shower. Some are also putting the shower on beforehand to heat the bathroom up before they get into the shower! They seem to have no regard for the energy or water they are consuming, preferring to enjoy the experience of a hot steamy shower.

*“I turn the shower on, steam up the bathroom and then get into the shower.”
Midlands, 21 years old, compulsory, family, unengaged*

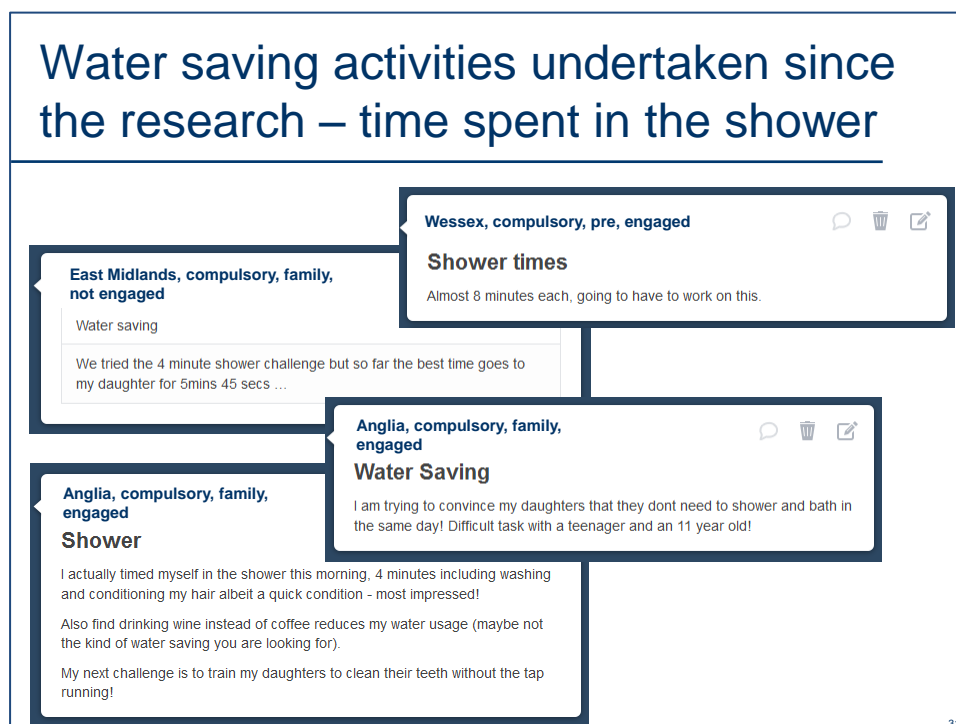
*“I sometimes have a shower for at least half an hour” Eastern, 19 years old,
compulsory, not engaged*

At the other extreme, one or two respondents talked about turning off the shower between soaping up and rinsing off.

“I put the shower on, use soap, switch the shower off, clean myself and put the water back on” Western, optant, post, engaged

Interestingly, this research has made those interviewed more aware of the length of time they spend in the shower. During the blog people timed themselves in the shower; they were surprised at the length of time they spent. They tried to reduce the amount of time they spent in the shower but clearly found it difficult.

Figure 4: Water saving activities undertaken since the research



Given the interest generated in showering via the research, and given the right circumstances, there may be potential to use this as a media campaign to ‘challenge the nation’ to reduce their shower time. Using the theory of behavioural economics, people could be persuaded to think about their shower time and change their habits, particularly if they feel others are following suit. This is also the sort of campaign which could take advantage of social media.

3.1.16 Shower regulator

None of the households interviewed had a shower regulator and almost no one was aware of them.

People do not understand how they work and there was concern that it would affect the performance of the shower - a compromise they would not be prepared to accept.

Nevertheless, like the other devices the respondents had seen, some were also interested in trying the shower regulator to trial it.

"It would be good to hear more about tap inserts and shower regulators and toilet cistern devices... and ways that you could save water in a bullet-point leaflet...you can pass this onto the children...people aren't educated about this." Eastern, compulsory, family, engaged

"I had the pressure reducer for the shower sent to me from the energy provider but didn't use it. It is easy to fit but I never did it because we have a power shower." Eastern, compulsory, post, engaged

3.1.17 Dual flush

Although many respondents had at least one dual-flush loo there was a lack of awareness among some (even those who are engaged) as to whether they had a dual flush loo or not. In some new build properties residents clearly did not realise that they have a dual flush loo.

"It's a new build {Do you have a dual flush loo?} It's a normal loo." South East, unmetered, family, engaged

Furthermore, whilst the dual flush is understood and used appropriately by some, there is a proportion of people who do not understand it. They do not realise there are two flushes available and if they do realise that two are available they do not understand the purpose of the two flushes.

"I just press both of them. I don't think it makes a difference." Midlands, compulsory, family, not engaged

3.1.18 Not flushing the toilet

Around a third of households admitted to not flushing the toilet every time they used it. For a minority this was a conscious water saving measure and one couple admitted to going to the toilet very quickly one after the other when visiting friends so that they did not need to flush after the first person.

"Without going into my personal life too much, this is about water usage and myself I use the toilet and say 'if it's yellow, let it mellow', we do that. We apply that here, we don't flush often." Western, optant, post, engaged

"We don't flush overnight – I get up twice a night – we just flush in the morning – it's not really the noise, it is the water." Western, unmeasured, post, engaged

For others, they were ordinarily not flushing when visiting the toilet during the night so as not to awake other members of the family.

3.2 Other uses of water

During the research other ways in which water is being used were mentioned by respondents. These are:

- Water for cooking:
 - Rinsing vegetables under the tap before cooking
 - Cooking vegetables
- Water for drinking:
 - Running the tap to get cold water (typically for around 20 seconds):

“If I’m pouring a glass of squash or something, I will run the tap a little bit to get it cold.” Western, compulsory, pre, engaged

- People also talked about running the tap because they believe there are metal residues from the pipes when water sits in the tap and pipes:

“I don’t know, because they said years ago that you could get some copper or something from the pipes.” South East, compulsory, pre, not engaged

- Washing dishes:
 - Rinsing dishes before and after washing under a running tap:

“I wash up in the washing up bowl but I tend to rinse things under a running tap and then wash up in the washing up bowl.” North West, unmetered, post, engaged

- Washing the driveway/patio/outside space – unmetered respondents recalled washing outside areas whereas metered respondents did not, this is probably because of the high volume of water (and consequently the cost) associated with such tasks:

“Sometimes we borrow someone’s jet wash and he’s out there ages with the jet wash, washing all the patio and drive” North West, unmetered, engaged (partner not engaged), post

- Caring for pets:
 - Filling/refilling a fish pond
 - Filling dog bowls
- Religious and cultural practices:
 - Washing before prayer and using the toilet
 - Washing dishes under a running tap

“When it comes to washing dishes and things like that, culturally you find a lot of Asian families will wash the dishes with running water because that’s how it’s been done traditionally. And we find that it’s more cleansing. To us, putting dishes in a bowl of water and dipping them in and out, doesn’t seem like you cleaned it – it’s just soapy water.” Midlands, compulsory, family, not engaged

3.3 Water saving activities adopted upon metering

For many water customers, becoming metered makes them think about their water usage more, but doesn't necessarily lead to major changes in their behaviour. A significant proportion of metered customers talk about 'tweaking' their water saving behaviour once they are metered, so they may think before they fill the kettle or the bath, but feel that they are generally already water conscious and taking measures to save water as part of their daily routine.

"For me it is like a routine, I just carry on that way, I don't really think that I'm saving water" Anglia, optant, post, not engaged

"It's what you're brought up with really, saving water" Anglia, compulsory, family, engaged

For a minority, becoming metered does prompt them to take further measures with some actively ordering water saving devices or water butts and others changing their day to day behaviour.

"I recently sent away to South West Water to get some gadgets to go around. The egg timer for the shower." South West, family, compulsory, not engaged

For some, while becoming metered doesn't impact much on their behaviour, receiving the bill does (depending on whether their bill is in line with their expectations). At this point, the bill payer will try and encourage other members of the household to save water in their day to day routine, with some having more success than others.

"If my daughter thought that the money saved would go into her pocket, then she'd never wash again." Anglia, family, compulsory, not engaged

"It is nice to know that we are not over-using water... we teach our sons the same." Anglia, family, compulsory, engaged

"Not running the water for cleaning teeth and shaving is something we've definitely become more conscious of since switching to a meter." South West, pre, optant, engaged

3.4 Activities tried but abandoned

There were a few activities that respondents had tried in the past but that they are not doing any longer. These previous activities focussed around four areas:

- Toilet:
 - Toilet Hippos – there appears to be less need for toilet Hippos now that cisterns are smaller. Several respondents explained that they had used them but that they had then needed to flush twice because the toilet Hippo had reduced the water volume too much – evidently, this was counter-productive.
 - A few respondents had tried to reduce the number of times they flush the toilet each day by not flushing every time. However, one or two felt the toilet then smelled and that this was unhygienic.

- Bathing:
 - Shared bathing was only seen as being appropriate for young children and so most people stop doing this as they grow up.
- Water recycling:
 - Some people are recycling their washing up water when a hosepipe ban is in force but once the ban is lifted they return to their usual behaviour
 - One respondent recalled recycling bath water, however, the effort involved in carrying water up and down stairs was too much and so this activity was abandoned.
- Tap inserts:
 - A respondent explained that they had tried the tap inserts but that they had fallen out, which suggests they were incorrectly fitted. Notably, this respondent did not try to refit them, instead they abandoned them completely.

3.5 Additional water saving activities considered

Although most metered customers feel that they are doing enough to save water already, when asked what else they could be doing to save water, several expressed an interest in trying the water saving devices that they were previously unaware of. For some, it could be that they were at a loss as to what else they could do but for others the interest was genuine, with one respondent who participated in the blog saying that she had ordered items since the interview:

“I decided to request the water saving devices after Tessa had left, as it made me think about saving water. Before Tessa's visit I hadn't really thought about saving water before. I will probably use the shower timer and continue to use the tap inserts from now on. I found the information available on United Utilities website to be informative and user friendly.” North West, post, unmetered, not engaged

Another measure commonly mentioned was installing a water butt in the garden. Notably, some explained that they were due to get a water butt in the near future anyway.

“We're going to get a water butt.” Midlands, compulsory, pre, engaged

In summary, respondents are interested in trying the following:

- Water saving showerhead
- Shower regulator
- Shower timer
- Tap inserts
- Water butt

However, they will only use the water saving showerhead and shower regulator if these devices do not impact on the quality of the shower. Respondents are not prepared to compromise on the quality of their shower for the sake of saving water and so if these devices do impact on the shower quality they will remove them.

Respondents recognise that water saving devices could be used as an opportunity to encourage customers to save water if given out for free. Given that some water companies are

already giving away water saving devices free, it appears that awareness is very low, even among engaged households.

“It’s a shame they don’t give these things out free, these water companies, to try and encourage people.” North West, unmetered, post, engaged

4. Motivations & Barriers to Saving Water

Summary

- Many water saving behaviours happen more out of habit than because of a conscious decision to save water, with any conscious decisions (amongst metered customers) more often driven by a desire to save money. Indeed, receiving the bill refreshes people's interest in water saving activities.
- There are five main barriers limiting water saving: it is not perceived as important; it can impact on personal time; it can be seen as an inconvenience; it can cost money and water is viewed as a plentiful resource. In addition, there is a perception that water companies are wasting water so households question why they should save it.
- Interestingly, most households feel they are doing everything they can to save water (even if they are not). On learning about the water saving devices, some customers show an interest in trying them out. There is also an interest in water butts amongst those who have not got them.

4.1 Motivations for saving water

The main reason metered people are motivated to save water is to save money on their water bill. Any amount of money is perceived as motivating, as long as it is a saving.

"Well anything, if it was £50 it would still be a saving, and we'll still be saving water." South East, optant, post, engaged

"Cost for me, as much as anything, because I know at the end of the day I'm the one that pays that bill." Western, optant, post, engaged

"It does give me satisfaction if I get a smaller bill every month." Eastern, optant, post, not engaged

"I'm very careful with dishes - I do wait until I've got a full bowl. Whereas before you never thought twice, but it's going up and up and up" South West, family, compulsory, not engaged

Notably, although saving money is the main motivator, respondents do not talk spontaneously about this translating into giving them control of their bills. In fact, unmetered customers perceive metering as uncontrolled as the bills are unpredictable in comparison to unmetered bills.

The other main motivators to both metered and unmetered customers, which are shown in the chart over the page, are:

- Protecting the planet now and for future generations – post family respondents are particularly driven by caring for grandchildren/future generations

“You do see it as a resource . . . One is self-interest of the cost and the other is that it's not really right to throw it away” Western, optant, post, engaged

“I suppose like anything, you try and save a bit of everything don't you. You do it for yourself to save a bit of money and I suppose for the environment as well....I do think about things and I do think about the environment.” Midlands, optant, family, engaged

- Fear (of what could happen if we do not save enough water) – respondents with memories of past drought situations when water had to be collected from standpipes in the road are particularly driven by fear

“My background had a lot to do with it. Coming from a country where we didn't have a lot of water. We used to go out and get the water from the well. It made me more conscious of it. In this country you're spoilt, you don't really care. From being a child to 21, we didn't have running water in the kitchen, I had to get water from the well.” South West, post, optant, engaged

- Avoiding being wasteful generally – some respondents avoid being wasteful generally and so not wasting water is a natural extension of this behaviour. This avoidance of being wasteful may have come from a specific event, for example one respondent had lived on a boat with limited water resources, or it could be from years of other frugal behaviours.

“We don't waste food. We eat what we cook and we don't buy food unnecessarily.” South East, optant, post engaged

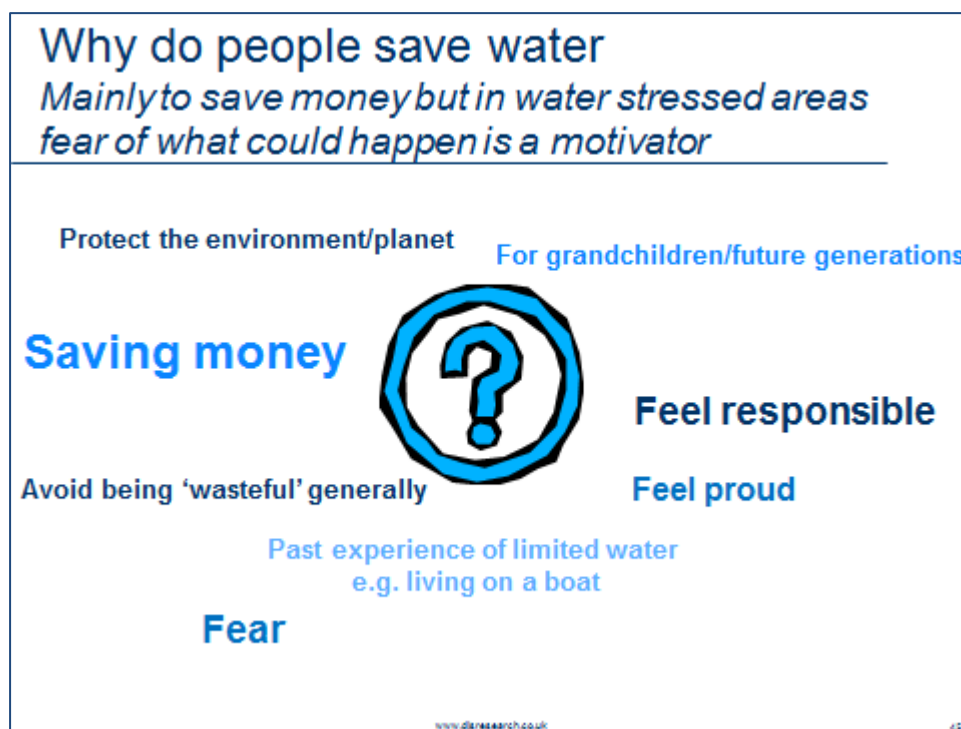
“If we're doing our hair we switch it off and then put the shampoo on – we do notice when we have visitors that they use a lot more.” E. Midlands, post, optant, engaged

- Saving water also gives some people a feeling of satisfaction and pride

“I feel quite proud (10 year old)...I'm not sure I would say proud but I think it would make me feel like we're being more responsible (parent)” North West, unmetered, family, engaged

“The smugness of doing it” Western, optant, pre, engaged

Figure 4: Motivations for saving water



4.2 Motivations for saving water across different groups

4.2.1 Lifestage

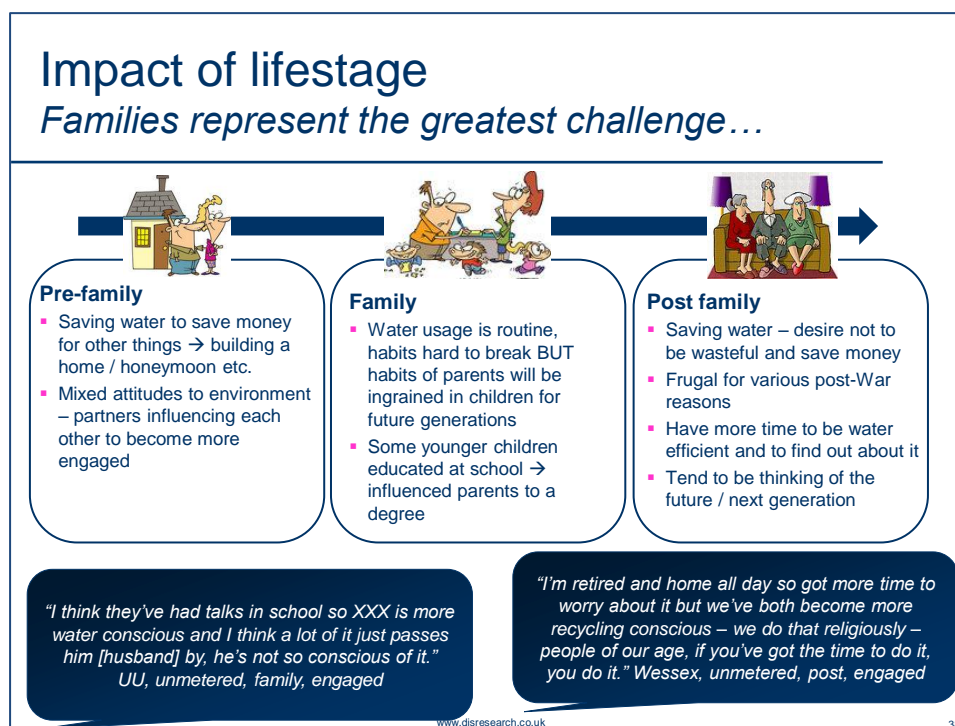
Motivations to save water change as people progress through the different lifestages.

Among pre-family households the driver for saving water is to save money to put towards other things such as buying their first home or making home improvements. Attitudes towards the environment and saving water may be different between the two partners; over time they influence each other's attitudes and behaviours.

Families tend to be the least engaged; the way in which they use water is routine and habitual. Nevertheless, they are still involved in water saving activities, but they do not tend to do them with the purpose of saving but rather because they are energy or time saving. They lead busy lives and measures which save time such as not filling the kettle to the top, taking showers instead of baths and only doing full loads of washing are common. Younger children in the household sometimes influence their parents' behaviour as a result of what they learn at school, although only two children (from different families) said they had covered water saving at school. Given that water usage behaviour is learned in childhood (ref: section 5.1) it is important that parents demonstrate responsible water behaviours.

Post-family households are more frugal generally and as a consequence tend to save more water than other households as well. Not only do they care about saving water for the next generation but they have more time to find out how to save water and to do something about it.

Figure 5: Impact of lifestage on motivations to save water



4.2.2 Metered vs. unmetered customers

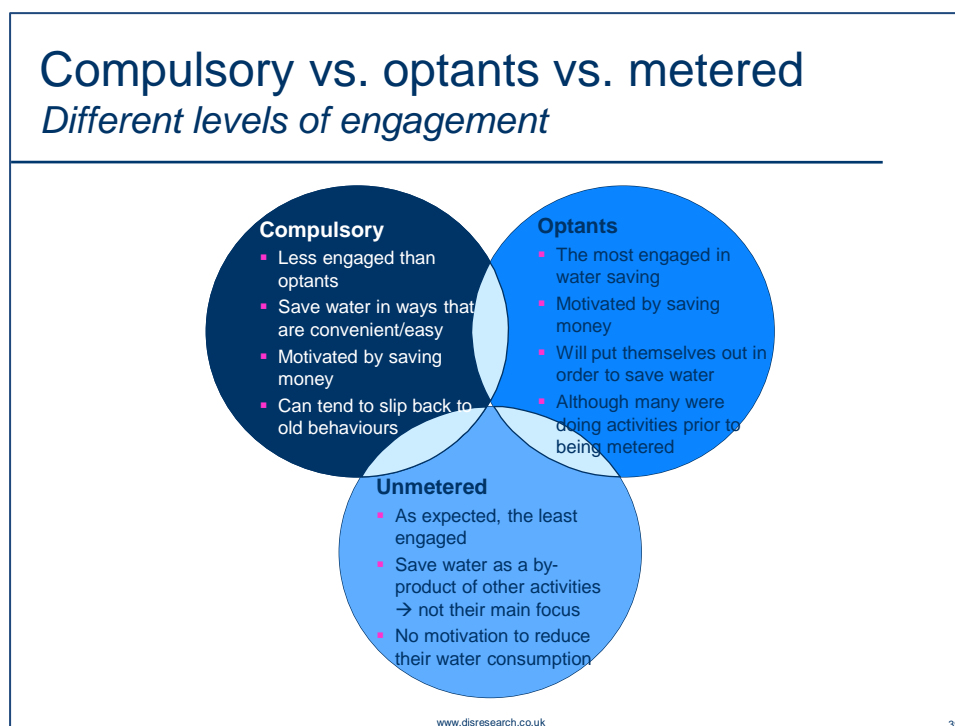
Not surprisingly, the level of engagement with water saving differs depending on whether customers are metered or not and by the type of metered customer.

Customers who have chosen to have a meter are the most engaged. These customers are the most motivated to save water and money even though they are very likely to have reduced their bill just by switching to a meter i.e. before any behavioural changes to use less water. They are more likely than others to be prepared to make their lives a bit more difficult in their efforts to save water (e.g. turning the shower off in between soaping and rinsing in the shower).

Customers who have been switched to a meter without any choice or who have moved into a metered property are less engaged than those who chose to have one but they are more engaged than unmetered customers. It could be that the lack of control over being metered has resulted in the consumers being less engaged in water use generally. They are motivated to save water by saving money, although those interviewed as part of this piece of research were far less knowledgeable about their bill than optants. This group are also only prepared to do things that are easy and which do not negatively impact their lives.

Unmetered customers tend not to be engaged in water saving as there is no immediate motivation for them to save water. If they are saving water it tends to be as a consequence of something else that they are doing rather than being their primary intention, or because they are motivated for environmental reasons.

Figure 6: Impact of metering on motivations to save water



4.2.3 Socio-Economic Grouping

There are also differences in engagement and understanding of water saving by socio-economic group (SEG), which are influencing attitudes and behaviours to water saving. Among the lower SEGs there seems to be the greatest potential to educate and inform about water saving in order to improve engagement.

Lower SEGs tend to be:

- Poorly informed about the impact of water saving on the environment and less so than other SEGs
- Less engaged with water saving, but for many this seems to be because of a lack of understanding/education about the impact of water saving as opposed to not caring per se
- Doing more manual work and so they have a higher essential water consumption:
 - Uniforms need washing frequently
 - After manual work they themselves need to wash/shower at the end of the day when they may have already showered at the beginning of the day as well, whereas others tend to shower once a day
- In rented accommodation and are unable or understandably reluctant to adapt/invest in properties which they do not own

Given that the lower SEGs may have relatively high consumption (e.g. daily clothes washing in some cases) it is possible that they could be encouraged to save water and where metered, money, if informed and engaged about water consumption and it was made easy for them by the provision of water saving devices/equipment.

Higher SEGs tend to be:

- Although well educated, they are not necessarily educated about water and the pressures on the water environment and water supplies
- A mix of engaged and not engaged:
 - The engaged customers care about saving water and are motivated to save even though they can afford their bills
 - Those who are not engaged do not care about saving water and can afford the consequences (i.e. the bill)

It seems likely that there is a portion of the higher SEGs for whom, irrespective of how much education/information they are given, using less water would not be something they would concern themselves with. This seems to suggest that the tariff structuring would be attractive to ensure that these households at least pay for their consumption. However, as we shall see later, although tariffs might ensure that those who can pay would pay, among consumers it is important to ensure that they do not unfairly penalise families or vulnerable groups in society.

4.2.4 Geography

The research has highlighted few differences in the attitudes of customers across different water regions. This could be because with the exception of two unmetered customer interviews in the North West and the interviews in the South West, all interviews were conducted in seriously water stressed areas or areas of medium to high stress.

There were more references made to the 2012 hosepipe ban in the South East region, as opposed to the others, and there is evidence that customers are prompted to change their water saving behaviour more during a hosepipe ban as opposed to other times.

“I have got three water butts, and when they were emptied, I would use a hose. But last year I hardly used it with all that rain. I get panicky when I get a hosepipe ban because I have got loads of flowers and a little greenhouse.” South East, pre, compulsory, not engaged

4.3 Barriers to increased water saving

The barriers to water saving fall into five main areas, as shown in the figure below:

Figure 7: Main barriers to increased water saving



- **Water saving** needs to be convenient for customers. If water saving is not easy, takes too much effort or impacts on customers' lives significantly, they are unlikely to adopt the water saving behaviour.
- The **water companies** themselves impact consumers' attitudes towards water saving. Respondents feel that water companies are slow to fix leaks (they recalled seeing bursts in the morning that still had not been fixed by the afternoon), which makes them feel that their own efforts to save water are pointless in comparison.

"What I do think is, it's disgusting is how much they charge for our bills when they waste more water than we ever will. Look at the leaks and everything else they have" South East, compulsory, family, not engaged

- The **personal investment of time and money** to save more water is perceived as too high – the additional strategies that respondents have considered require a significant investment of time and money, such as installing underground water storage on their own property or grey water recycling systems.
- For some, particularly unmetered customers, **water saving is not top-of-mind** and these customers take it for granted that water is available when they turn on the tap. In addition, lower SEG unmetered customers also tend to be of the view that they have paid for the water and so they want to get their value for money by using it – and so in that sense to save water would be counter intuitive for them.

"I don't think about water saving whatsoever...it's one of those things that everyone has got, I don't think about it." Midlands, unmetered, pre, not engaged


"I'm paying that much for it, I might as well use it." South East, unmetered, family, not engaged

- Finally, the idea of saving water is difficult in periods of high rainfall when **water is perceived as a plentiful resource** – given that 2012 was the second wettest on record it is difficult for respondents to understand the need for additional water saving.

There are also cultural barriers for some families as shown in the case study in Figure 8 below:

Figure 8: Cultural barriers to increased water saving

Case Study



- Mum, dad and 3 daughters (21, 18, 13) – Asian ethnicity.
- Compulsorily metered – the meter was there when they moved into the house.
- Mum really doesn't like being on a meter. She had made enquiries about having it removed but was told it wasn't possible. It may even have prevented them from buying their home had she known beforehand. They pay almost £80 a month on their water
- Dad is a chef and mum works part time at the youngest daughter's school as an administrator. The children are all still in education and all live at home full time.
- They see themselves as a modern family but all follow traditional beliefs to some degree. These include:
 - Washing before using toilet facilities as well as after
 - Washing before and after prayer
 - Only washing dishes in running water
- Only mum (who paid the bills) was conscious of the amount of water used in the house and tried to save water.
- The girls didn't think at all about the cost or the effect on the environment that their water usage had

"I think it's a cultural thing. Even though we're very modern and everything else – when it comes to washing dishes and things like that, culturally you find a lot of Asian families will wash the dishes with running water because that's how it's been done traditionally. And we find that it's more cleansing. To us, putting dishes in a bowl of water and dipping them in and out, doesn't seem like you cleaned it – it's just soapy water."

"I turn the shower on, steam up the bathroom and then get into the shower. I've got really bad habits and I just get shouted at, but I think 'Well I like to do it so I'm going to carry on'."

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5. Use of Information about Water Saving

Summary

- On the whole, people do not actively look for information about how to save water
- Knowledge about water saving activities tends to be learned or intuitive – people do not expect to have to look for information about water saving they feel that they should already know what to do or be able ‘work it out’ for themselves
- Consequently, it is not surprising that awareness of water saving devices is low as people are not searching for this kind of information in places where they would find out about new ways to save water

5.1 Sourcing information

One of the main aims of the research was to provide evidence of where people get their information about saving water from, and what has worked successfully for them.

It became apparent during the research that very few people actively look for information about how to save water. Saving water is perceived as ‘common sense’. It tends to be learnt when growing up or from partners as people get older.

“Blue Peter and my mum. I remember the water appeals and stuff like that. I grew up on Blue Peter, and my mum, and my grandparents going ‘in the war.’” Midlands, compulsory, pre, engaged

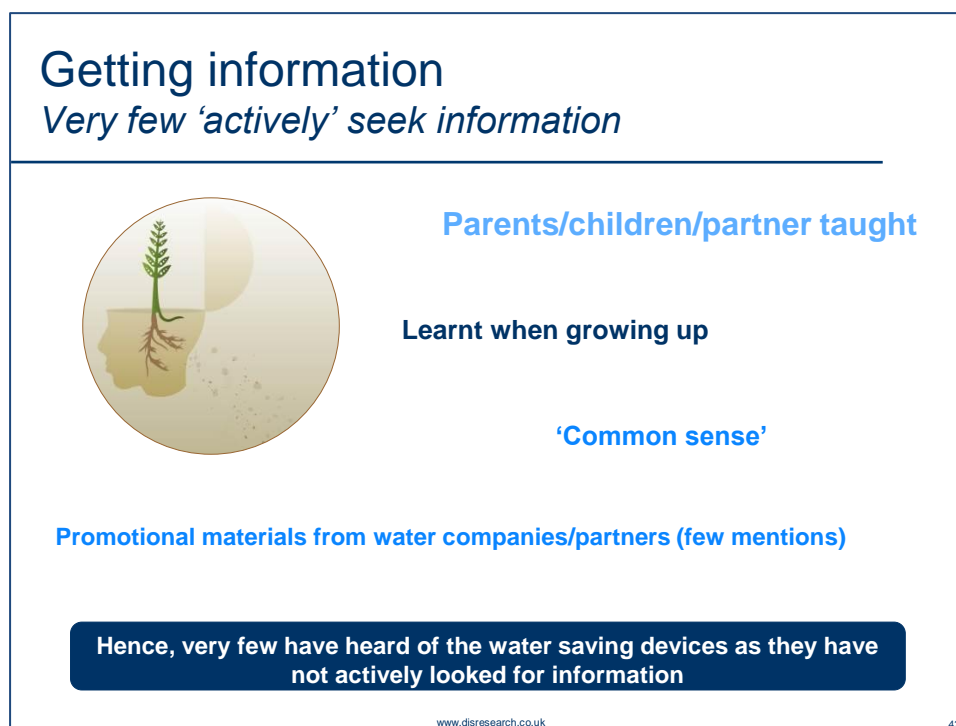
“I suppose you hear things and pick things up and then some of it is common sense and you hear from parents or friends or family. The job I do, I work in plants; civil engineering and stuff, they do a lot of work with Anglian Water and people like that. You pick tips up along the way. We have things like water saving schemes and energy saving schemes, you just pick up information as you go from various places.” Midlands, optant, family, engaged

“Talking to neighbours and people who were on a water meter. They used to tell me things they were doing to save water. I mean I never used to think about turning the tap off when cleaning my teeth....We just share tips on how to save money.” Midlands, optant, post, engaged

Some meter optants recalled receiving information when switching to a water meter and some had referred to it and taken actions on the back of it, for example one had ordered a water butt. However, overall, the majority had not actively sought out information about how to save water.

“Been doing all this since we have been on the meter. When we first went on the meter they gave us loads of leaflets about how to save water etcetera so that made us think about it more. From then we just started doing it.” South East, compulsory, family, not engaged

Figure 9: Seeking information



Following the research, one of the respondents who then went on to participate in the blog said they had gone on the water company website and ordered some water saving devices, and was most impressed because all of them were free of charge.

"I decided to request the water saving devices after Tessa had left, as it made me think about saving water. Before Tessa's visit I hadn't really thought about saving water before. I will probably use the shower timer and continue to use the tap inserts from now on. I found the information available on United Utilities website to be informative and user friendly." North West, post, unmetered, not engaged

During the blog, respondents were asked specifically to look for information about water saving. Even when respondents were asked to look for information they were reluctant to do this, either because they felt they knew what to do already or they were too busy:

"No I didn't look up any information. I have been aware for some long time about the need to conserve this precious commodity, so relied on my instincts." Western, optant, post engaged (blog)

"I must admit I did not look for water saving devices. I guess they are out there on the net, but must admit to being lazy. No not lazy just too busy with working and small family. Might get husband to source some in future." Western, optant, family, not engaged (blog)

Those who did look for information tended to use 'Google' first, commonly typing in 'water saving' which took them to a variety of sites. Some were impressed by the amount and quality of information available, one respondent felt that too much information was provided on one site about 'Hippos'.

"I was quite surprised by the amount of information on saving water there is out there. Quickly came across websites for Waterwise and The Environment Agency which give lots of useful advice and quick tips for saving water. I think it is always easy to find information when you want to – it's getting people to think about saving water in the first place which is the challenge." Western, compulsory, pre-family, engaged (blog)

"I used Google and just typed in 'water saving' which came up Energy Saving Trust, Hippo, Waterwise and the Environment Agency. The amount of info these sites give is vast and in the case of Hippo too much, I have no idea which one and pack is the right one for us even after spending 10 minutes trying to figure it out. The others give good general information." Western, optant, pre-family, engaged (blog)

With few respondents seeking out information about water saving or even referring to information sent out by the water companies, it is not surprising that knowledge of why saving water is important and the availability of water saving devices is low.

This would suggest that if the water industry is to change peoples' perceptions of water usage in the future, it may want to consider above the line advertising to get the message across about saving water, as consumers are unlikely to seek out this kind of information themselves.

6. Tariffs & Incentives to Encourage Water Saving

Summary

- As well as reducing the water bill by using less water, additional money off the water bill is the most motivating and relevant incentive to encourage people to save water, although a voucher system and water saving devices also have some potential.
- There are questions around how a system which incentivises customers to save water could be implemented:
 - How would the savings be calculated
 - Household situations change so how would it be possible to measure water savings when water usage could change
 - Would water bills increase to fund the incentives
 - Questioned how motivation would be maintained, for example, water saving devices are received and installed but doubt that customers would continue to be motivated to save water
- Customers do not favour the concept of a tariff to influence their water usage – but when pushed, they prefer the rising block tariff as they feel this is fairer than a seasonal tariff.

6.1 Water saving incentives

One of the main objectives of the research was *‘to inform CCWater’s views on company charging schemes and on proposals for innovative tariffs or incentives which are designed to help manage or reduce peak demand for water’*.

Before prompting respondents with different ideas for how water companies could encourage them to save water, they were asked to suggest ways in which this could be done. Most notably, respondents raised offering money off the bill spontaneously:

“If you could actually tie in your water usage with your specific bill that would be pretty straightforward, an obvious saving” Western, optant, post, engaged

“The only incentive worthwhile is money off our bill or if the water companies provided free of charge water saving devices for homes with a water meter...” Midlands, compulsory, family, not engaged (blog)






“These are like carrot dangles, people love an incentive and they think oh yes, that’s great and I’ll do this and do that but at the end of the day they want to be paying less on their bills” Midlands, optant, family, engaged

Respondents were then prompted with the following ideas and asked to comment:

- Vouchers
- Family days out
- Water saving devices
- The chance to win a big prize e.g. family trip to Disney or an iPad

Respondents felt that water saving devices and vouchers could help to encourage customers to save water. Whilst, at the other end of the scale, days out or being entered into a prize draw are not viewed as particularly useful water saving incentives (see Figure 10 below).

Figure 10: Incentive appeal

Incentive	Appeal
Money off my bill	
Vouchers	
Water saving devices	
Days out	
Prize draw	

Whilst respondents liked the idea of offering an incentive to encourage people to save water, they also had some concerns about them:

- How would the 'savings' be calculated
 - Household situations change (people's families expand and contract as they have children/children move out of home etc.) and so respondents questioned how it would be possible to measure 'water savings' when water usage will change as a result of changes in the household
- Funding the incentives
 - Respondents suspected that their water bills would increase in order to fund the incentives
- Maintaining motivation
 - Those already saving water in many different ways felt it would be difficult to save much more water; they did not think these incentives would be motivating for people like them
 - Equally, others questioned the longevity of a programme based on incentivising 'saving' as they are of the view that once people have saved as much as they can there is no incentive to continue saving water

*"I don't know how this would be done? Look who is in the household and offer a discount for being say 20% under the national average for that household?"
Western, compulsory, pre-family, engaged (blog)*

“But would it [their water saving] continue afterwards? Say they won the prize for instance, would they be of the mind to say, ‘well we won because I saved so much water’. How would they think about it after that?” South East, optant, post, engaged

6.1.1 Vouchers

Respondents felt that a voucher reward system could encourage people to save water as long as it was:

- Simple to use
- Of significant value
- Offered vouchers redeemable across a variety of relevant stores

“Would it be time consuming to actually apply for the vouchers? It’d have to be very simple for me” Western, compulsory, post, not engaged

Some respondents suggested that in order for the vouchers to be redeemable across a variety of stores a system like Clubcard or Nectar could be used.

However, some respondents questioned whether giving customers vouchers would result in long-term changes. They were of the view that once customers received the vouchers they would no longer be incentivised to save water.

“I suppose they’d be doing it then purely for the incentive rather than any more kind of long term ingrained reasons, so you’d question how long that behaviour would last for I suppose.” Western, compulsory, pre, engaged

Any system would therefore need to be designed to combat this happening.

6.1.2 Water saving devices

Providing customers with water saving devices as a reward for saving water was felt by many to be a relevant incentive and one that would encourage people to save water.

“If they said they would supply them for free, if they said they were going to supply everyone with the things for the taps and showers so it uses less....give them to us so people don’t have to buy them in order to save them money.” South East, compulsory, family, not engaged

However, respondents were dubious about the longevity of water saving devices as an incentive programme. They felt that once customers had acquired all of the water saving devices there would be no further interest in the programme and that customers would need a further incentive scheme to maintain their interest in continuing to save water (through using the water devices they have received and/or by other water saving activities).

“If you could get that free, if you saved so much over a certain period of time. It would appeal to me but it couldn’t be on-going could it, once you’ve got one that’s it.” South West, family, optant, not engaged

Some respondents felt that water saving devices should be offered to people BEFORE they started to save water as they would enable them to do so. Thus, they were doubtful as to the value of providing the devices on an on-going basis as an incentive.

“It would be more helpful to give me that at the beginning before I saved the water, not after” North West, unmetered, family, engaged

There were some respondents (around a third), who did not like the devices and would not be incentivised by them. Inevitably, not all water devices are suitable for all households either, as modern bathrooms come with more water efficient fittings.

6.1.3 Days out

Days out were felt to be one of the least attractive incentives.

They were only considered to be a suitable incentive for families and even so there are a number of considerations that limit their appeal:

- There are the additional costs of travelling to the day out to consider – for lower income families this could be prohibitive

“But you offer somebody a family day out and they haven’t got a car for instance, and its tickets to Alton Towers or something, and the transport is not provided, what good is a day out to Alton Towers?” South East, optant, post, engaged

- There would need to be a variety of days out offered in order to appeal to young children and teenagers – indeed, some felt that days out would not appeal to the whole family and that cinema tickets could be more appealing

A handful of respondents felt that the ‘day out’ should be related to water, for example, free swimming for the family.

6.1.4 Prize draw

For most people being given entry into a prize draw was viewed as the least attractive of the incentives suggested. Only the lower SEGs thought being entered into a prize draw would motivate them to save more water.

“Definitely, it’s doing something to make you think and try and save it.” South East, unmetered, family, engaged (lower SEG)

For many the concept of a ‘potential’ prize is intangible as an incentive and consequently it would not serve as a motivator to save water.

“I think those things are too abstract too – ‘you could win this’, does anyone actually ever win? I don’t know, so that probably wouldn’t motivate me.” North West, unmetered, family, engaged

*“I think people generally think they never win anything. It wouldn't tempt me.”
South East, compulsory, pre, not engaged*

Older respondents are the least motivated by the concept of winning a prize.

“For me, one of the things that is an anomaly in a way would be the Disney thing, as only certain people are going to be pursuing that... so I think the other ideas that are more low key like money off the bill would be better.” Western, post, optant, engaged

“If it was something that was really big that you might not win, then you might think well there's no point.” Western, family, optant, not engaged

6.2 Tariffs to encourage water saving

During the interview, respondents were introduced to two tariffs aimed at reducing demand for water. The tariffs were introduced as follows:



The tariffs were explained simply to respondents by the moderator. It was explained with the rising block tariff that each household would be allocated a volume of water at a standard rate, depending on the household size; larger homes being allocated more water at the standard rate. If homes used more than this volume of water they would then be charged the higher rate.

With the seasonal tariff, respondents were told that the rate would vary by season. The example given was that the rate would be higher in summer in order to try and encourage people to use less water. Everyone would pay the same rate in each season.

Overall respondents preferred the rising block tariff as a means of encouraging customers to save water. Customers felt that everyone would be penalised by the seasonal tariff because during the summer usage tends to increase and so they envisaged their water bills also increasing, which not surprisingly they did not like.

“From a personal point of view I would rather go for the block...I don't know it is difficult to explain really. I am just thinking of the amount of water I use in my garden because I use so much more in the summer probably.” South East, compulsory, pre, not engaged

However, respondents were not overly positive about either tariff as they felt both are not fair to various groups in society. It is clear that they would rather that these tariffs are not used to try and influence water consumption behaviour.

6.2.1 Rising block tariff

Of the two tariffs, this tariff was preferred because it was felt that it would be easier to budget throughout the year.

Respondents felt that the rising block tariff could make people think about their consumption as customers would be trying to avoid the higher tariff. However, some questioned how people would know when they are close to moving onto the next tariff. Water meters are often located out of view (e.g. under the road) and so it would not be possible to see when the household consumption was close to exceeding the lower tariff limit, consequently respondents questioned how the water companies would communicate this information to customers.

“Yes that would really incentivise people, if they’ve got a water meter and could see they are getting close to their limit then they would say ‘Hang on perhaps we won’t have a bath for the next three weeks we’ll have showers’” Western, optant, post, not engaged

In addition, there were other concerns with this tariff:

- Customers want reassurance that the block on the lower tariff will be sufficient for the average user so they have the potential to keep within the lower tariff. They want to ensure that the circumstances of each individual household are taken into account, e.g. a couple versus a family
- Customers suspect that families are liable to be unfairly penalised because their usage is higher.

6.2.2 Seasonal tariff

As previously mentioned, this tariff is felt to be unfair as everyone’s water consumption increases in the summer.

“In the summer you need water for the garden but equally you drink more water and colder drinks so in that sense you are being penalised for living...everybody drinks water.” Eastern, unmetered, family, engaged

In addition, customers view this tariff as particularly unfair to families and vulnerable customers. They are concerned that these sub-groups would not be able to change their water consumption habits to reduce their bill and if they did try to reduce their consumption this could impact negatively on their health.

“But then you could be penalising larger families, families with two and three children are going to use that much more water than a couple, and they’re likely to say ‘well we’re being penalised because we’ve got a large family’. Maybe you could have a family tariff.” E. Midlands, post, optant, engaged

“I think there would be more people getting ill, because they can’t afford to use clean water.” South East, family, unmetered, engaged

Given the wet summer last year, some people feel that this tariff could be viewed as illogical by customers. For example increasing the tariff during a wet summer would be difficult to justify on the basis of water scarcity.

Only a few respondents are in favour of this tariff, because they think a seasonal tariff would be effective at discouraging excessive water usage during times of water shortage.

“I think it would, because it is that thing like if you’re in a water shortage and you see someone there just with a hosepipe like hosing down the car and looking like they’re wasting it, at least they are having to pay for it, there is some element of fairness in there.” Western, compulsory, pre, engaged

6.3 Incentives from other environmental activities

In order to understand other ways that customers could be motivated to save water, respondents were asked what it is that motivates them to participate in other environmental activities.

Most households are recycling plastic, glass and paper from their homes. People are motivated to recycle partly out of convenience and through a combination of reward and punishment motivations.

- Convenience:
 - Recycling bins have been provided free to each household – this poses the question of whether water saving devices should be freely given to each household
 - There is no need to separate the items for recycling into different bins, it all goes into one bin
- Reward:
 - Makes people feel good/feel as though they are ‘doing their bit’
 - Looking after the planet for future generations

“Now I’ve got a little granddaughter I’m thinking about her future and the world that she’s got to live in.” North West, unmetered, post engaged

- Punishment:
 - Household rubbish bins are only emptied every other week, respondents need to reduce the amount of rubbish thrown away to prevent their bins overflowing (overflowing bins will not be emptied)
 - The threat of a fine if they use the wrong recycling bin
 - Hassle of going to nearest recycling centre to dispose of rubbish if it’s not collected.

Consumers are also taking measures to save energy and will generally quote energy saving over water saving when discussing why they adopt certain behaviours such as: only running the washing machine on a full load; only filling the kettle with the water they need and heating less water when filling a bath. Energy bills are significantly higher than water bills, which is a key incentive for bill payers to keep them down. In addition, there has been a major push by the Government and the energy companies to raise awareness of why we need to save energy (future blackouts, carbon emissions and global warming) and what we can do to save energy.

With the roll out of energy smart meters and the wide spread availability of energy monitors, it is also easier for consumers to see how much energy they are using and what measures they need to take to reduce consumption.

In the water industry, smart meters which are comparable to those being introduced for energy are not yet in use.

7. Encouraging water saving

Summary

- There is a clear need to educate and inform people about the need to save water:
 - There is a lack of understanding about the need to save water from an environmental perspective – although saving money and incentives are potentially encouraging to customers, if these are not underpinned with the fundamental knowledge as to why customers should care about water saving and so adopt water saving behaviours there is the risk that water saving behaviours will be short-lived only to gain the reward
 - There is also confusion about the need to save water during periods of extended or of heavy rainfall when the reservoirs appear to be full to customers
- Communications about water saving should focus on:
 - For metered households – saving water means saving money on the water bill, and as a secondary benefit, saving money on energy bills (metered and unmetered households)
 - Educating customers about the impact of saving water/not saving water
 - Small changes have the potential to have big differences
- Unmetered customers worry about moving onto a meter because of the unpredictable bills and the potential increase in their bills. There is a lack of awareness that customers who request meters can revert to charges based on the rateable value of their property if they are unhappy with their metered charges within 12 months⁶.

7.1 Lack of knowledge about the impact of water saving

Throughout the research it was apparent that there is a gap in respondents' knowledge about the need to save water. Although many respondents are taking some measures to save water, there is little knowledge about why they should be and the potential long-term environmental impact of not doing so, and conversely what the environmental benefits are.

On the whole, people are confused as to the need for saving water when it is raining and when they believe that the reservoirs are full. They think the problem lies with the water companies, in that they should be collecting and storing the rainwater effectively, and it should not come down to the consumer to save water:

*“Most people think why should I save water, it's always raining in England.”
Midlands, Unmetered, pre, not engaged*

“I suppose the biggest wind up is the leaks... I know they will have leaks but they need to be dealt with as quickly as possible don't they.” South East, optant, post, engaged

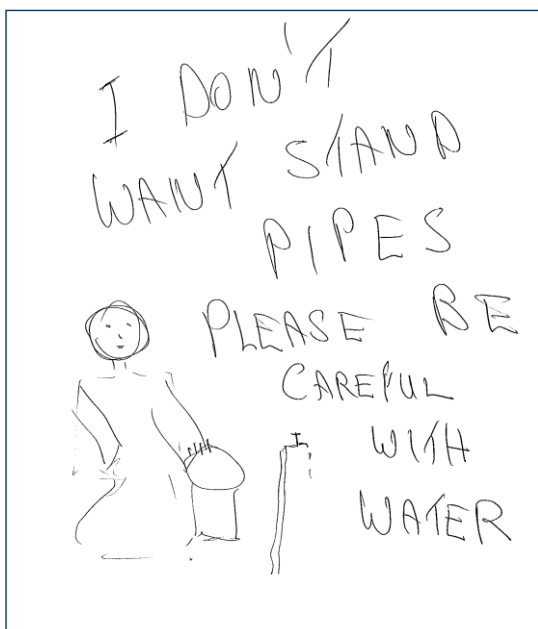
The only real knowledge people do have about the impact of water shortages is from past experiences when they recall collecting water from standpipes in the road. However, it is only

⁶ Unless installed under a Universal Metering Programme
Consumer Council for Water - Research into Saving Water; the Consumer Perspective

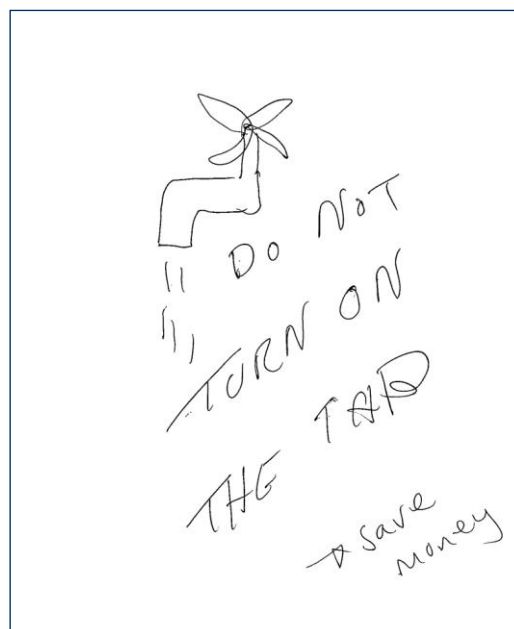
older people who can remember this and so the fear of this happening again is only a motivation for them; younger people have no experience of such water shortages.

7.2 Message cues

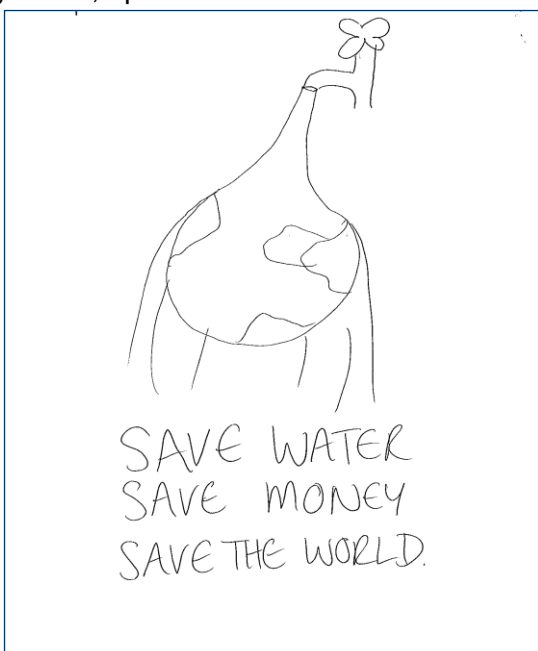
In order to understand how to communicate about water saving, respondents were asked to create an ad about water saving. Some respondents drew these ads, examples are shown over the page:



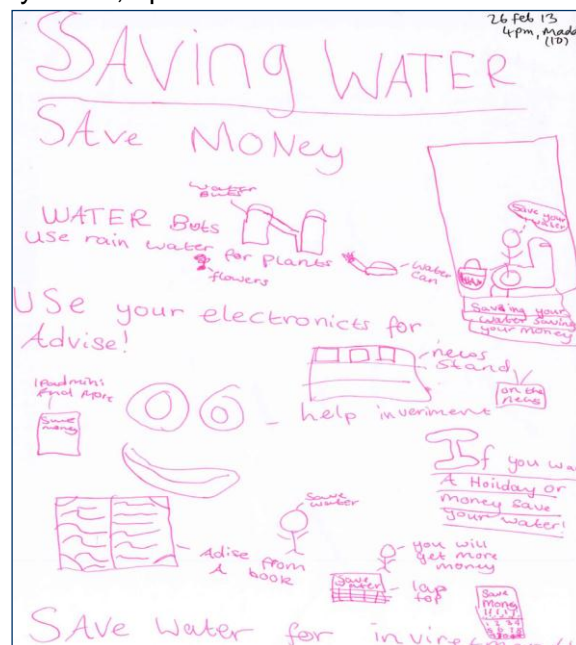
Plymouth, optant



Plymouth, optant



Plymouth, optant



Plymouth, compulsory, 10 year old

Overall, the main messages that respondents feel should be communicated are that:

- Saving water will save metered customers money
- Information/education about the environmental impact/benefit of saving/not saving water
- Small changes can create a significant impact

- If everyone makes small changes in their water behaviour this can result in significant water savings across the whole population

“I think we’re aware of carbon, in terms of electricity and the ozone layer and all that, but exactly how does water impact?” North West, unmetered, family, engaged

In addition, there is a feeling that water companies should commit to fixing burst pipes quickly. Respondents feel that when they see burst pipes in the street which have not been fixed from the morning through to the afternoon this makes them feel their efforts, in comparison to this, are insignificant.

7.3 Moving onto a meter

Unmetered respondents were asked how they would feel about going onto a meter.

The main concern is the potential impact on their water bill if they switch to a water meter. Respondents are worried about what will happen to their bills if they move onto a meter; they are concerned that their bills will increase and that they will not be able to cope. In particular, lower SEG respondents are especially frightened about not knowing how much the bill will be.

“I think people who have never had one are quite scared... I’ve no idea how usage as a family of three in a four bedroomed house, how that compares, but would we be better off, and I think there’s an element of well the water people will tell you you’re better [off] but once they get you on the meter actually you’ll end up paying more.” North West, unmetered, family, engaged

There is a perception amongst unmetered respondents that they will not be able to have the meter removed once it has been installed. They feel that once the meter is installed they are committed to being on a meter.

There is a degree of apathy among the unmetered respondents, with them preferring to continue with the status quo rather than living with the uncertainty of a metered bill. Respondents are not sure whether a meter would be better value but cannot be bothered to research this for themselves and so they continue in the same situation. Others feel it is too much hassle to arrange to have a meter installed.

“I think I might have done a while ago, 2 or 3 years ago. I thought I can’t be bothered, it’s too much mither, I’ll just carry on as I am.” North West, unmetered, post engaged

8. Conclusions

Water saving behaviours:

- Both metered and unmetered households are participating in a variety of water saving activities. The most common water saving behaviours, tend to be those that are easiest to do and that people tend to do out of habit. These are:
 - Turning the tap off while teeth brushing and/or shaving
 - Only using the dishwasher / washing machine when full
 - Using a bowl in the sink when washing dishes
 - Not overfilling the kettle
 - Fixing dripping taps
 - Using a watering can to water plants in the garden
- Conversely, the activities which are least common are all linked to installing or using water saving devices. Awareness of such devices is patchy and amongst those aware, a conscious decision to save water is required:
 - Toilet hippos
 - Tap inserts
 - A shower timer
 - A shower regulator
- The research has shown that most people are satisfied with the water saving behaviours that they are doing currently (with many not even registering that their actions are saving water) and they feel that they are already doing almost everything that they can to save water.

Motivations & barriers:

- Although people are involved in water saving behaviours, they are often doing them to save energy and time rather than to save water. Saving water is often an afterthought, for example people tend to shower nowadays rather than bath but it is because people prefer it and it is more convenient rather than because it saves water.
- Saving money is the key goal of saving water; however, once metered households reach a certain threshold in terms of savings, there is little incentive to save further. For most, the savings sought are not that high, so the incentive to continue to save water can wane once that saving has been made. Even so, the research has shown that these customers are the most engaged with saving water.
- People also feel there is an environmental benefit to saving water, although they are not able to verbalise exactly what that means.
- Barriers to saving more water include:
 - Water companies not fixing leaks/bursts in the road quickly – customers feel that their own efforts are in vain when they see water draining down the street for several hours.
 - Convenience – water saving activities need to be easy to do.
 - Lack of personal time and money to invest in water saving devices.
 - Water is just not top-of-mind.
 - Water is perceived to be a plentiful resource and so there is no need to save it - there is confusion as to why there is an on-going need to save water when it is raining outside and customers perceive that the reservoirs are full.

- Nevertheless, in times of drought people make a more concerted effort to save water, adopting behaviours that they would not normally do – such as watering the garden with dishwater and bathwater specifically to save water.
- Similarly, on receiving a meter people make more effort to save water; some of this becomes habit but some falls by the wayside.
- Water saving activities aren't perceived as difficult – the most popular are the ones that require no effort at all and can be built into routine.
 - However, people are not willing to compromise their lifestyle to save water.
 - As a consequence, although people expressed an interest in the devices they were previously unaware of, any continued usage was caveated assuming there would be no impact on performance and/or that they are easy to install and work.
- Most customers feel they are doing everything they can to save water and there is only a little interest in installing new water saving devices. Most people are satisfied with the financial savings they have been making since switching to a water meter, particularly optants.

Uses of information:

- People do not tend to look for information about how to save water, instead the feeling is that it is:
 - Learned when growing up or from partners later in life.
 - Instinctive.
 - 'Picked up' along the way.
- Given that relatively few people are actively looking for information it is not surprising that awareness of (free) water saving devices was very low. Consequently, very few people are picking up any additional information about water saving as they are not actively looking for information.
 - There is a lack of knowledge and understanding across the board about why we need to save water – particularly when we seem to be in receipt of so much rainfall.
- To date, it seems that any pushes to raise awareness of these issues have not effectively reached consumers, with energy saving and recycling campaigns taking precedence. If the water sector is to get its message across to consumers, a national, high profile campaign may be necessary to raise awareness of all the potential benefits of saving water in order to reinforce good practice and behaviours and that there is a wider social and environmental context.
 - For the campaign to be national, we suggest that the education strategy be led by an organisation independent of the regional water companies. This may have more weight, with many customers critical of the water companies for wasting water.

Tariffs & incentives:

- Money off the water bill is the most relevant and motivating incentive to encourage people to save water.
- Neither of the proposed tariffs (block or seasonal) were liked as respondents do not want their water consumption to be influenced in this way.
- If pushed, they preferred the block tariff as opposed to the seasonal tariff as they feel it is the fairer of the two and it would allow them to budget more easily.

- Other incentives received mixed reactions and there are concerns as to their longevity because once the incentive has been achieved the enticement to save water would no longer be there.

Encouraging water saving:

- The lack of information and understanding about *why* people need to save water was recognised as a gap across the board with respondents expecting this information to form part of any campaign to encourage people to save more water.

9. Recommendations

In order to improve engagement in and adoption of water saving behaviours, we suggest a programme of education supported by ‘push’, ‘pull’ and ‘nudge’⁷ strategies, as follows:

- Education is key in order to raise awareness and increase wider engagement in water saving
- Whilst messages such as ‘save water to save money’ and ‘saving water is easy’ are likely to strike a chord with the public more than an environmental message, it is still important to underpin any campaign with information about the environmental impact of water saving/not saving water, in the same way that the public have been educated about recycling, future energy supplies and carbon emissions.
- We therefore recommend building on existing motivations (saving money) and behaviours with supporting messages to explain the need for saving water to generate long-term motivation and commitment to water saving behaviours.

Alongside the education programme the following strategies could also be adopted:

- Push:
 - Opportunity to promote water consumption ratings on white goods and kitchen/bathroom fittings – so that when consumers make a big ticket investment, water consumption is a consideration. Whilst water consumption is highlighted on washing machines and dishwashers, this does not appear to be well known and there is confusion as to whether the energy ratings apply to water consumption as well. Waterwise is currently working on a Checkmark scheme to provide consumers with an ‘at-a-glance’ indicator of a product’s water saving potential – the research supports their activity and suggests that there is opportunity to promote the scheme more widely to ensure that consumers are aware of it and take it into consideration during their purchase decisions.
 - Consider more work with landlords and social housing providers – a lack of willingness on the part of landlords to install showers, modern cisterns or water saving devices, can lead to complacency amongst tenants ‘why should I make an effort if the landlord doesn’t’. In the same way that the energy sector has worked with landlords to make houses more energy efficient, work needs to be done to encourage them to also look at water efficiency.
- Pull:
 - There is potential to offer money off water bills to encourage water saving – by default, metered customers save money if they save water. However, if a system could be designed which offered customers additional money off their bill by



⁷ Push factors which are about setting standards for water using devices. This includes the regulations that apply to water fittings and new homes; Pull factors which reward customers for using water wisely; and, Nudge factors which are about understanding consumer behaviour and using it to promote change.

meeting water saving targets, many customers have said they would respond to this. This obviously requires careful thought (see Section 6.1 of this report) and further research to test its feasibility. It would also work better if water meters were more accessible to customers and smart metering was able to let customers monitor their usage better.

- Rewarding customers who save water, with free water saving devices is not seen as the most suitable way of incentivising *long term* water saving behaviour. People are more likely to be incentivised by cash or vouchers. However, water saving devices do have a role in helping households to save water. By distributing devices to customers embarking upon water saving (typically those becoming metered) customers may be more inclined to install them. Currently, these customers are only likely to obtain water saving devices, if they find out about them through reading water company literature at metering. The onus is then on the customer to order and fit them. This requires effort on the part of the customer and this research has shown that few customers have the time or inclination to read about water saving devices, let alone proactively order and use them. They are more likely to respond to their water company issuing a free pack of devices with their new meter, or to people moving into metered properties.
- Nudge:
 - **Promoting behaviour change among metered customers** – of course, most households could be doing more to save water, but they seem to lack the motivation and inclination to do so.
 - For this to happen, it appears that more education is required, because without knowing *why* there is a need to save water, some households will continue to treat it as a plentiful commodity (as they are not aware of anything to the contrary). Although customers are already saving water, if they are to be encouraged to save more water they need more information on how saving water impacts on their bill in order to understand where they can make further savings. Previous research conducted for Ofwat and CCWater, has found that metered customers do not know how many units they typically use or what they pay for each unit.⁸ Our research supports this, having found that whilst optants have an idea of what they are saving, those compulsorily metered are less informed. By understanding how certain water saving behaviours can impact on their bill, customers will be more motivated to save (especially if this is tied in with tariffs/incentive schemes).
 - Another way the sector could influence behaviour is by making customers believe that everyone is adopting certain behaviour. This can be done in a number of ways e.g.in a light hearted way – by challenging the nation to reduce their shower time; in a subtle way – by telling customers whether their bill is average for their household size or in a more obvious way.
 - **Increasing uptake of water meters** – providing information to unmetered customers is key to encouraging uptake of water meters. Unmetered customers are of the view that water meters are going to be expensive rather than that they could potentially save money by having one installed. They are scared of the

⁸ [Push, pull, nudge – how can we help customers save water, energy and money?](#) March 2011 Ofwat Consumer Council for Water - Research into Saving Water; the Consumer Perspective

potential impact that having a meter could have on their water bills and this fear of the unknown is preventing them from considering a meter. In addition, they do not know that they can revert back to the rateable value bill within 12 months if the metered bill turns out to be higher than what they were paying on rateable value⁹.

⁹ Unless installed under a Universal Metering Programme
Consumer Council for Water - Research into Saving Water; the Consumer Perspective

Appendix 1: Recruitment Questionnaire

DJS Research Ltd, 3 Pavilion Lane, Strines, Marple, Stockport, SK6 7GH. Tel 01663-767857

I declare that this interview was carried out according to instructions, within the MRS Code of Conduct and that the respondent was not previously known to me.

Name: Signature:.....

Date: Actual Interview Duration: minutes

CCWater Attitudes towards Water Saving: The Consumer Perspective Screener Questions

Introduction

Good morning/afternoon, my name is . . . from DJS Research, an independent market research agency.

We're doing some research on behalf of CCWater, the independent consumer body for the water industry. They are interested in finding out about how people use water.

This interview will only take a couple of minutes, but we're interested in whether you want to take part in a longer interview in the next couple of weeks for which we'll pay you a cash incentive.

Are you interested?

Yes

CONTINUE

No

THANK AND CLOSE

Thank you, first of all need check some things with you to see if you qualify.

BASE: ALL RESPONDENTS

Q1. Do you or any member of your immediate family work in any of the following organisations?

READ OUT

Defra

Environment Agency

A water company

CCWater

THANK AND CLOSE IF ANY CODED

BASE: ALL RESPONDENTS

Q2. Gender. **DO NOT ASK**

Male

Female

BASE: ALL RESPONDENTS

Q3. Which of the following age groups do you fall into?

- 18-34
- 35-44
- 45-54
- 55-64
- 65+

BASE: ALL RESPONDENTS

Q4. Do you have children?

- Yes
- No

PRE-KIDS INTERVIEW

BASE: ALL RESPONDENTS WITH CHILDREN

Q5. Are any of them living at home?

- Yes
- No

FAMILY INTERVIEW

POST KIDS INTERVIEW

BASE: ALL RESPONDENTS WITH CHILDREN LIVING AT HOME

Q6. What are their ages?

- 0-5
- 6-10
- 11-15
- 16+

THANK AND CLOSE IF ONLY AGED 0-5 TICKED

	Under 45	45-54	55+
No kids at home	Pre	Thank & Close	Post
Kids at home	Family	Family	Family

BASE: ALL RESPONDENTS

Q7. Do you have a water meter?

- Yes
- No

METERED QUOTA

UNMETERED QUOTA

BASE: ALL RESPONDENTS WITH A METER

Q8. Did you choose to have a meter fitted or was it already in the property when you moved in or did you have to have it fitted?

- Chose to have a meter
- Already installed when I moved in
- Landlord insisted on it
- Water company has installed it since I moved in

OPTANT QUOTA

COMPULSORY QUOTA

BASE: ALL RESPONDENTS WITH A METER

Q9. How long have you had your water meter?

Less than 12 months

More than 12 months

BASE: ALL RESPONDENTS

Q10. Can I just check, do you have a garden?

Yes

No

BASE: ALL RESPONDENTS

Q11. Are you in receipt of any of the following benefits? You don't need to say which one, just a yes or no will do. **SHOW CARD A**

Council Tax Benefit (not the single person allowance)

Housing Benefit

Income support

Income-based Job Seeker's Allowance

Child Tax Credit (other than just the family element)

Pension Credit

Income related Employment and Support Allowance

Yes

No

BASE: ALL METERED RESPONDENTS

Q12. At home, do you use water for cultural or religious purposes?

Yes

No

BASE: ALL RESPONDENTS

Q13. How much do you feel your household saves water, using a scale of one to ten where one means your household saves nothing at all and ten means your household makes every effort to save all it can? **PLEASE RECORD A NUMBER BETWEEN 1 AND 10**

IF SCORED 1-6, RECRUIT AS NOT ENGAGED AND IF SCORED 7-10, RECRUIT AS ENGAGED

BASE: ALL RESPONDENTS

Q14. What is the occupation of the main income earner in your household?

**CLASSIFY ACCORDING TO FOLLOWING OCCUPATIONAL GROUPINGS. IF PENSIONER/RETIRED
PROBE FOR PREVIOUS OCCUPATION**

- A – Very senior managerial positions (large organisations) and professional occupations
- B – Senior managerial; business owners. Middle management in large organisations
- C1 – Small employers; junior management and other non-manual occupations
- C2 – Skilled manual workers e.g. served apprenticeships, special qualifications or certificates
- D – Semi skilled and unskilled workers
- E – Casual workers; unemployed and otherwise not working
- Refused

IF WILLING TO TAKE PART, RECORD DETAILS BELOW:

Name:.....

Address:

Postcode:

Contact Number:.....

Date of Depth:.....

Time of Depth:

**Should you want to contact the MRS (the Market Research Society) to verify that DJS Research Ltd
comply with the code of conduct you can call them on 0500 39 69 85**

Appendix 2: Discussion Guide (Metered)

CCWater - JOB 1328
Saving Water, The Consumer Perception
TOPIC GUIDE (V3) – ENGAGED METERED INTERVIEWS

1. Introduction (2-3 minutes)

Briefly explain:

- DJS Research is an independent market research agency working on behalf of CCWater
- Introduce CCWater as commissioner of the research:
 - CCWater is The Consumer Council for Water, which was formed in 2005 to represent the interests of consumers in the water and sewerage industry of England and Wales. It is not a water company and is independent of the water industry.
- Purpose of the research:
 - CCWater who would like to talk to people about how they use water.
- The discussion will be audio recorded for analysis purposes
- Length of discussion: about 1 hour (up to 1¼ hours with families)
- Honest opinions, no right or wrong answers, all ideas welcome
- Incentive: £40 cash for paired depths and families with 1 parent attending/£50 for both parents attending a family interview.
- Explain interview structure: general introduction first, followed by individual interviews (parents can be present during children's interviews) then everyone involved in group interview

2. Individual interviews (5 minutes/respondent)

Section objective: establish water usage behaviour with individual members of the family/pair

Now I'd like to talk to each of you individually.

ASK EACH RESPONDENT:

Tell me about the occasions when you use water... (USE DIARY AS STIMULUS / PROMPT)

- How do you personally usually use water? **(ASK THE RESPONDENT TO DESCRIBE WHAT THEY WOULD DO)**
- What are you thinking about on these occasions when you use water? **(WITHOUT ASKING DIRECTLY, ESTABLISH IF THE RESPONDENT IS THINKING ABOUT SAVING WATER OR IF SOMETHING ELSE IS TOP-OF-MIND)**
 - Do you ever think about the amount of water you are using?
 - On what occasions? Why is that?
- Is the way in which you use water different from other members of your family?
 - In what way is it different?
 - Why is that?

3. Setting the scene (5 minutes)

Section objective: getting to know the respondents and the household setting

Let's start with you telling me a bit about your household ...

- Number of people in the household
- The occupation of anyone who is working within the household
- Ages of any children
- Age of property
 - Newly fitted bathroom or kitchen
 - Dual flush toilets
- Approximate annual or monthly water bill
- Metered / unmetered
 - How long metered
 - How became metered (establish if by choice or not)
- How environmentally conscious as a family/couple on a scale of 1 to 10 (1 is not at all and 10 is extremely)
 - Why/what do you do (NB: this is generally, not just related to water)

4. Water saving behaviours (15 Minutes)

Section objective: identify the water saving behaviours respondents are involved in

*I'd like to talk to you all about what you do to save water. You've already mentioned individually that you <INSERT BEHAVIOURS MENTIONED BY FAMILY MEMBERS TO SAVE WATER>... Here are some cards showing various water saving activities. I'd like you to tell me which of these you do... **SHOW WATER SAVING CARDS***

- Which, if any of these do you do? **RECORD ON SHEET A**
- And who in the family does each of them? **RECORD ON SHEET A**

For each water saving activity, if not mentioned, prompt:

- How long have you been doing that? (**Probe:** was it linked to getting a meter or a particularly high metered bill)
- Whose idea was it to start this?
- How easy or difficult is it to do this?
 - Do you all find it easy/difficult? Why is that?
 - Was it easier or harder when you started? Why is that?
- How did you know about this way to save water?
- Where did you find out information about it?

- Which of the things you are doing to save water do you feel is the most effective? Why is that?

- Is there anything that you have tried to save water in the past but that you aren't doing now? Why is that?
- What else, if anything, is there that you would like to do to save water?
 - What is it that is stopping you from doing it?
- Thinking about the things you do to save water, do you feel like you are doing something specifically to save water or does it feel like routine?

5. Motivations for saving water (15 Minutes)

Section objective: understanding the motivations underlying water saving behaviours

I'd now like us to talk about what it is that makes you want to save water... (KEEP WATER SAVING BEHAVIOUR CARDS THEY PARTICIPATE IN ON THE TABLE AS A REMINDER)

- Thinking generally about the things you do to save water, what is it that motivates you to do those things? **(EXPLORE FOR EACH ACTIVITY – REFER TO CARDS)**
 - Is it the same for all of the things that you do?
 - How is it similar / different? Why is that?
- How does saving water make you feel? (e.g. sense of achievement / satisfaction, financial reward, caring for future generations etc.)

IF MONEY/COST SAVINGS MENTIONED, ASK:

- Did you save as much money as you thought you would? Why is that?
- How much money did you expect to save?
- How could you tell how much money you had saved?
- Were you disappointed / satisfied? Why?

For each water saving activity tried in the past but not currently doing now:

- You mentioned that you tried <INSERT ACTIVITY TRIED BUT GIVEN UP>, what made you stop doing that?
- Is there anything that would make you do <INSERT ACTIVITY TRIED BUT GIVEN UP> again?
- And are there any other water saving activities that you would like to try but haven't yet?
 - What is it that is preventing you from doing these?

6. Water saving incentives (15 Minutes)

Section objective: explore and understand what incentives motivate consumers to save water

Now I'd like us to talk about how people could be encouraged to save more water

SHOW CARD B – BUBBLE DIAGRAM

I'd like you to imagine that the people in this picture are like you and they are talking to each other about why they save water. What do you think they would both be saying and what would they be thinking ...

- What would they be saying about why they save water?
- And what would they be thinking?
- Would what they are saying be the same as what they would be thinking? Why is that?
- What would encourage these people to save more water? Why is that?

IF NOT MENTIONED, PROMPT:

- Vouchers (establish for where)
- Family days out
- Water saving devices
- The chance to win a big prize – e.g. the chance to win a trip for the family to Disney, or an ipad (other electronic consumables are available!) – or something that otherwise might be out of their reach but would have broad appeal

Introduce alternative tariff schemes:

- *Rising block tariff – this is a water tariff that rises as householders use more*
- *Seasonal tariff – with this tariff it is varied seasonally, for example it may be higher in the summer to discourage excessive use in the summer months*
- How would these people feel about alternative tariffs for water?
- Would it encourage them to save more water?
- Why is that?

Imagine that these people had saved money by saving water and then the price of water increased in future...

- How would that make them feel?
- Would they feel they were still saving money because by saving water they will continue to pay less, or, would they feel that the price rise had countered any savings they had made?

Thinking about the other environmental activities you are involved in (**REFER BACK TO ACTIVITIES MENTIONED IN SETTING THE SCENE – IF NOT INVOLVED IN ANY ENVIRONMENTAL ACTIVITIES ASK IF EVER CHANGED HOUSEHOLD ROUTINE FOR AN INCENTIVE OF SOME KIND, ASK WHAT THEY HAD TO DO AND WHAT THEY RECEIVED**)...

- What incentives, if any do you receive for doing these things?
- Would these incentives encourage you to save more water? Why/why not?

I'd now like you to imagine you had to create an ad to encourage people to save water...

- What would it look like? Why?
- What would the main messages be?
- In what way would this encourage people to save water? (EXPLORE FOR EACH MESSAGE MENTIONED)

7. Close (1 Minute)

We've now reached the end of the discussion...

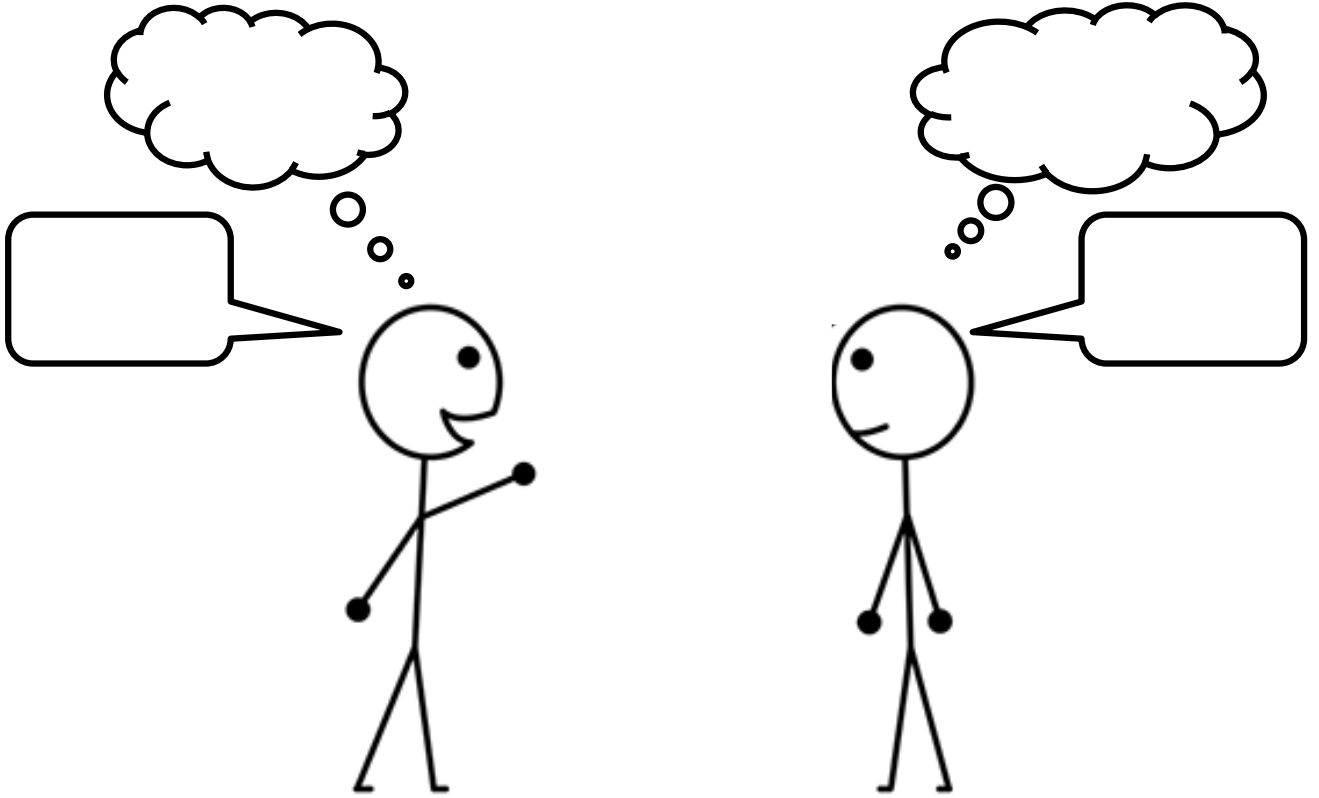
- Are there any other comments that you would like to add? Is there anything further that you would like CCWater to know about what we have been talking about today?
- Check if okay to be re-contacted for future research
- If appropriate explain about blog

THANK AND CLOSE

SHEET A

	Family member (write in)				
Water saving activity					
Fixing dripping taps					
Having shallow baths					
Not overfilling the kettle					
Only using washing machine/dishwasher when full					
Recycling washing up water					
Sharing bathwater					
Shower timer					
Tap inserts					
Toilet Hippo (or other device to reduce volume of water in the cistern)					
Turning tap off when cleaning teeth/shaving					
Using a bowl to wash up (if washing up by hand)					
Using a bucket to wash the car					
Using a trigger nozzle on the hose to water the garden					
Using a watering can to water plants (in the summer)					
Water butt					
Water saving showerhead					

SHOW CARD B



Appendix 3: Discussion Guide (Unmetered)

CCWater - JOB 1328
Saving Water, The Consumer Perception
TOPIC GUIDE (V3) – UNMETERED INTERVIEWS

8. Introduction (2-3 minutes)

Briefly explain:

- DJS Research is an independent market research agency working on behalf of CCWater
- Introduce CCWater as commissioner of the research:
 - CCWater is The Consumer Council for Water, which was formed in 2005 to represent the interests of consumers in the water and sewerage industry of England and Wales. It is not a water company and is independent of the water industry.
- Purpose of the research:
 - CCWater who would like to talk to people about how they use water.
- The discussion will be audio recorded for analysis purposes
- Length of discussion: about 1 hour (up to 1¼ hours with families)
- Honest opinions, no right or wrong answers, all ideas welcome
- Incentive: £40 cash for paired depths and families with 1 parent attending/£50 for both parents attending a family interview.
- Explain interview structure: general introduction first, followed by individual interviews (parents can be present during children's interviews) then everyone involved in group interview

9. Individual interviews (5 minutes/respondent)

Section objective: establish water usage behaviour with individual members of the family/pair

Now I'd like to talk to each of you individually.

ASK EACH RESPONDENT:

Tell me about the occasions when you use water... (USE DIARY AS STIMULUS / PROMPT)

- How do you personally usually use water? **(ASK THE RESPONDENT TO DESCRIBE WHAT THEY WOULD DO)**
- What are you thinking about on these occasions when you use water? **(WITHOUT ASKING DIRECTLY, ESTABLISH IF THE RESPONDENT IS THINKING ABOUT SAVING WATER OR IF SOMETHING ELSE IS TOP-OF-MIND)**
 - Do you ever think about the amount of water you are using?
 - On what occasions? Why is that?
- Is the way in which you use water different from other members of your family?
 - In what way is it different?
 - Why is that?

10. Setting the scene (5 minutes)

Section objective: getting to know the respondents and the household setting

Let's start with you telling me a bit about your household ...

- Number of people in the household
- The occupation of anyone who is working within the household
- Ages of any children
- Age of property
 - Newly fitted bathroom or kitchen
 - Dual flush toilets
- Approximate annual or monthly water bill
- Unmetered
 - Have they always been unmetered?
 - If been on a meter in the past: why did their situation change? (explore changes in behaviour with a water meter compared to now in section 4)
- How environmentally conscious as a family/couple on a scale of 1 to 10 (1 is not at all and 10 is extremely)
 - Why/what do you do (NB: this is generally, not just related to water)

11. Water saving behaviours (15 Minutes)

Section objective: identify the water saving behaviours respondents are involved in

*I'd like to talk to you all about what you do to save water. You've already mentioned individually that you <INSERT BEHAVIOURS MENTIONED BY FAMILY MEMBERS TO SAVE WATER>... Here are some cards showing various water saving activities. I'd like you to tell me which of these you do... **SHOW WATER SAVING CARDS***

- Which, if any of these do you do? **RECORD ON SHEET A**
- And who in the family does each of them? **RECORD ON SHEET A**

For each water saving activity participating in, if not mentioned, prompt:

- How long have you been doing that?
- Whose idea was it to start this?
- How easy or difficult is it to do this?
 - Do you all find it easy/difficult? Why is that?
 - Was it easier or harder when you started? Why is that?
- How did you know about this way to save water?
- Where did you find out information about it?

- Which of the things you are doing to save water do you feel is the most effective? Why is that?

- Is there anything that you have tried to save water in the past but that you aren't doing now? Why is that?
- What else, if anything, is there that you would like to do to save water?

- What is it that is stopping you from doing it?
- Are there any water saving ideas on these cards that you have not heard of before? Which ones? Would you be willing to try them? Why/not?
- Thinking about the things you do to save water, do you feel like you are doing something specifically to save water or does it feel like routine?

12. Motivations for saving water (15 Minutes)

Section objective: understanding the motivations underlying water saving behaviours

I'd now like us to talk about how you feel about saving water...

(KEEP WATER SAVING BEHAVIOUR CARDS THEY PARTICIPATE IN ON THE TABLE AS A REMINDER)

- How do you feel generally about saving water?
IF NOT MENTIONED, PROMPT:
 - How important is it to you? Why is that?
- Thinking generally about the things you do to save water, what is it that motivates you to do those things? **(EXPLORE FOR EACH ACTIVITY – REFER TO CARDS) (EXPLORE IF COST GIVEN AS A MOTIVATION)**
 - Is it the same for all of the things that you do?
 - How is it similar / different? Why is that?
- How does saving water make you feel? (e.g. sense of achievement / satisfaction, financial reward, caring for future generations etc.)

For each water saving activity tried in the past but not currently doing now:

- You mentioned that you tried <INSERT ACTIVITY TRIED BUT GIVEN UP>, what made you stop doing that?
- Is there anything that would make you do <INSERT ACTIVITY TRIED BUT GIVEN UP> again?
- And are there any other water saving activities that you would like to try but haven't yet?
 - What is it that is preventing you from doing these?

REFER TO SITUATIONS WHEN RESPONDENT DOES NOT SAVE WATER, e.g. FILLING WASHING MACHINE, HAVING A LONG SHOWER, FULL BATH ETC.

- Thinking about occasions when you are not consciously saving water, how do you feel about the way you use water? **(ESTABLISH IF RESPONDENT CARES ABOUT THE WAY THEY USE WATER)**
 - Do you feel you could use less water? Why/why not?
- What would have to happen for you to use less water in these situations?

13. Water saving incentives (15 Minutes)

Section objective: explore and understand the barriers to saving water and to identify potential incentives to motivate consumers to save water

Now I'd like us to talk about how people like you could be encouraged to save more water

SHOW CARD B – BUBBLE DIAGRAM

I'd like you to imagine that the people in this picture are like you and they are talking to each other about saving water.

What do you think they would both be saying to each other and what would they be thinking ...

- What would they be saying about why they save water?
 - And what would they be thinking?
 - Would what they are saying be the same as what they would be thinking? Why is that?
 - What would encourage these people to save more water? Why is that?
- IF NOT MENTIONED, PROMPT:**
- Vouchers (establish for where)
 - Family days out
 - Water saving devices
 - The chance to win a big prize – e.g. the chance to win a trip for the family to Disney, or an ipad (other electronic consumables are available!) – or something that otherwise might be out of their reach but would have broad appeal

Introduce:

- *Meters*
- *Alternative tariff schemes:*
 - *Rising block tariff – this is a water tariff that rises as householders use more*
 - *Seasonal tariff – with this tariff it is varied seasonally, for example it may be higher in the summer to discourage excessive use in the summer months*
- How would these people feel about meters?
 - Would it encourage them to save more water?
 - Have you personally thought about going on a meter? **(EXPLORE MOTIVATIONS FOR NOT HAVING A METER)**
 - Is there anything that has put you off? What?
- How would these people feel about alternative tariffs for water?
 - Would it encourage them to save more water?
- Why is that?

Imagine that these people had saved money by saving water and then the price of water increased in future...

- How would that make them feel?
 - Would they feel they were still saving money because by saving water they will continue to pay less, or, would they feel that the price rise had countered any savings they had made? **(Probe: would they feel they**

were saving on energy bills by using less hot water? Would this be enough of an incentive even though water bills had increased?)

Thinking about the other environmental activities you are involved in (**REFER BACK TO ACTIVITIES MENTIONED IN SETTING THE SCENE – IF NOT INVOLVED IN ANY ENVIRONMENTAL ACTIVITIES ASK IF EVER CHANGED HOUSEHOLD ROUTINE FOR AN INCENTIVE OF SOME KIND, ASK WHAT THEY HAD TO DO, WHAT THEY RECEIVED AND IF THE ACTIVITY WAS TEMPORARY**)...

- What incentives, if any do you receive for doing these things?
- Would these incentives encourage you to save more water? Why/why not?

I'd now like you to imagine you had to create an ad to encourage people to save water...

- What would it look like? Why?
- What would the main messages be?
- In what way would this encourage people to save water? (EXPLORE FOR EACH MESSAGE MENTIONED)

14. Close (1 Minute)

We've now reached the end of the discussion...

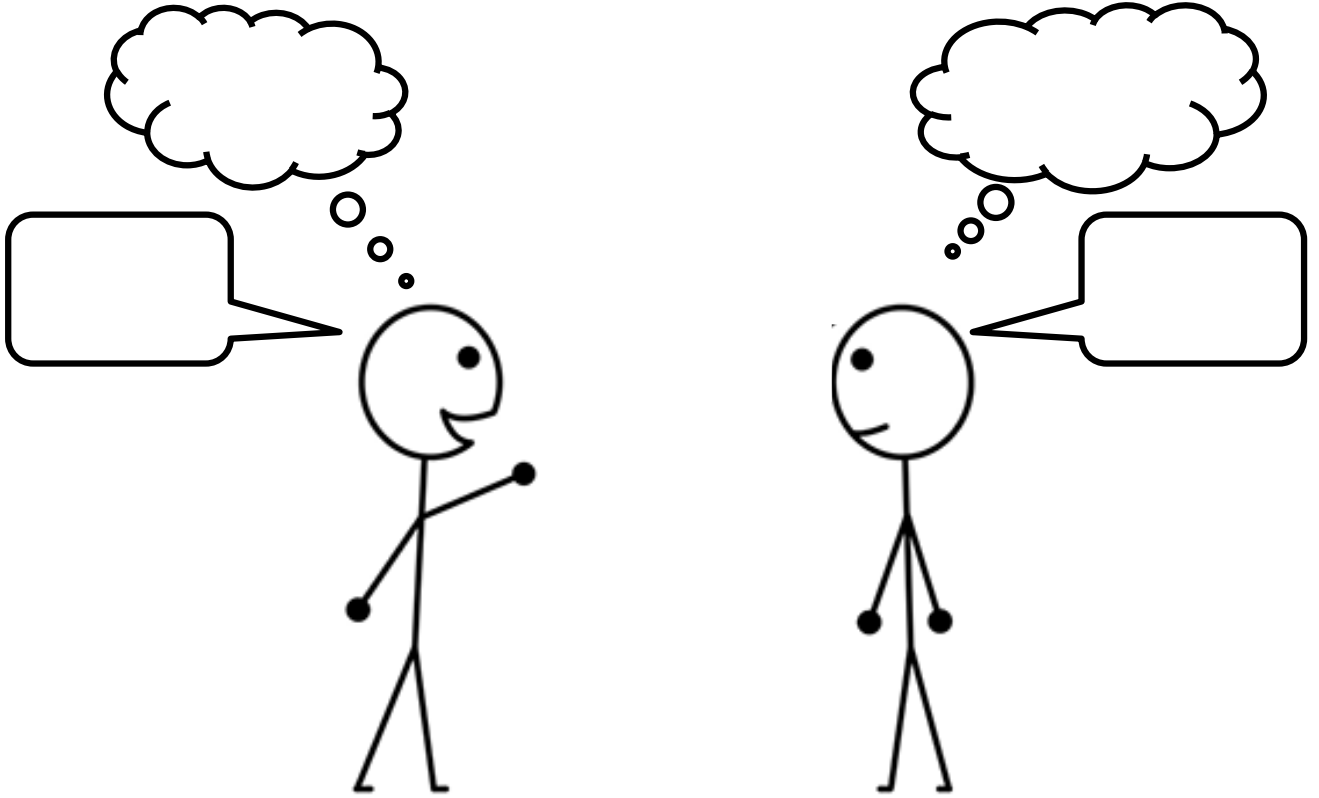
- Are there any other comments that you would like to add? Is there anything further that you would like CCWater to know about what we have been talking about today?
- Check if okay to be re-contacted for future research
- If appropriate explain about blog

THANK AND CLOSE

SHEET A

	Family member (write in)				
Water saving activity					
Fixing dripping taps					
Having shallow baths					
Not overfilling the kettle					
Only using washing machine/dishwasher when full					
Recycling washing up water					
Sharing bathwater					
Shower timer					
Tap inserts					
Toilet Hippo (or other device to reduce volume of water in the cistern)					
Turning tap off when cleaning teeth/shaving					
Using a bowl to wash up (if washing up by hand)					
Using a bucket to wash the car					
Using a trigger nozzle on the hose to water the garden					
Using a watering can to water plants (in the summer)					
Water butt					
Water saving showerhead					

SHOW CARD B



Appendix 4: Show Cards



Fix dripping taps



Shallow bath



Not overfilling the kettle



Sharing bath water



Use a bucket to wash car



Trigger on hose pipe



Use a watering can to water plants



Water butt in the garden



Shower timer



Only using dishwasher/washing machine when full



Tap inserts



Shower regulator



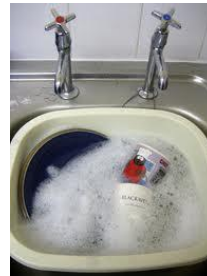
Reducing water in the toilet cistern



Water saving shower head



Not running the water while brushing teeth/shaving



Using a washing up bowl when washing dishes by hand