

# Using Water Wisely

Quantitative research to determine consumers' attitudes to water use and water conservation

Report for Consumer Council for Water  
In Association With WRc  
October 2006



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# Summary



# Summary

## Background

CCWater is taking the lead in understanding how the Water Saving Group (WSG) can best change consumers' awareness, perceptions and behaviour to value water as a resource and to develop a plan to educate consumers into best practice of efficient water usage, leading to a more sustainable use of a scarce resource.

A wide-ranging review of previous research exploring one or more of these issues was conducted (in early 2006), and a number of knowledge gaps were identified. To complete their knowledge base, CCWater commissioned two parallel research studies (one qualitative, one quantitative).

The qualitative research element has been administered via a forum of 100 consumers, and has been procured and reported separately.

MVA Consultancy, in association with WRc, was commissioned to conduct the quantitative research study. A large national survey was undertaken in August 2006. A representative sample of more than 2,000 consumers was achieved. The research aims to provide clear insight into the influences on consumers' current and future attitudes and behaviour so that CCWater can develop an educational programme to better inform consumers and, ultimately, reduce water consumption without jeopardising society's public health and hygiene levels.

The overall aim of the research is to provide evidence-based **conclusions** on consumers' views on water use in the home and workplace, and provide **recommendations** on how consumers can be encouraged to use water more wisely.

It is worth noting that the research period coincided with a drought, particularly in southern England. In addition, water companies in the South East, in conjunction with the Environment Agency, increased their collective promotional activities in the area of water efficiency. The fieldwork also took place during a sustained period of media attention on water infrastructure leakage and the commencement of the enquiry into Thames Water desalination plant and public consultation on their new reservoir proposal.

## Key Findings

### *Awareness of water as a resource*

The majority of respondents correctly asserted that: the water in their taps comes from rainwater, rivers and lakes; water is not naturally pure; water consumption has increased in recent years; and our drainage system is at least partly to blame when we have flooding.

There was a high level of unprompted concern regarding environmental issues, with nearly one in ten respondents mentioning concerns about water conservation specifically.

Respondents consider water conservation to be relatively important when compared with other environmental issues, with energy conservation, air pollution and climate change considered to be of greater importance than water conservation and recycling, waste disposal and sustainable transport to be of lower importance.

## Summary

The majority of respondents claim to undertake certain environmentally aware activities, most commonly switching off lights in an unused room or re-using/recycling plastic bags. Of the list presented to respondents, more people carry out the energy-saving activities than the water-saving activities.

### ***Behaviour and attitudes in relation to personal water use***

Most respondents think wasteful demand **and** management of supply are jointly to blame for the water shortage.

In general, respondents stated that both they themselves, and members of their household, do their bit to save water. However, respondents are less confident about the water saving behaviour of others in their household. It is also in contrast to the majority of respondents believing that one of the causes of the water shortage is people wasting water.

Other than collecting and using rain water for garden watering/car washing and re-using washing-up water rather than pouring it down the plughole, the vast majority of respondents indicated that they conduct the specified water-saving behaviours in order to save water.

Barriers to water-saving behaviour included: habit, lack of convenience, lack of necessity, and, in the case of collecting rainwater, practical reasons (lack of space etc.).

The majority of customers think that the water shortage in their area is 'not very serious' or 'not at all serious'. This is not the majority view in water-stretched areas with restrictions, where three-quarters of respondents consider the local situation to be 'quite serious' or 'very serious'. However, in water-stretched areas where there are no restrictions, only one-third of customers hold this view.

### ***Behaviour and attitudes to water using appliances***

Most respondents who use a dishwasher, only use it when full. However, this was mainly for energy/cost savings rather than water savings.

Of those respondents who had purchased a water-using appliance in the last five years, the most common purchases included: a washing machine, dishwasher or shower.

The influences on choice of new water using appliance were cost and energy efficiency. Appearance was also important for non-energy using appliances. However, for those who were influenced by someone else's recommendation, they mainly identified friends/family and salesperson.

40% of respondents indicated that they would be willing to accept a 10% drop in dishwasher performance in order to secure a 10% increase in water efficiency, an additional 39% would be willing to pay £40 extra for a 10% reduction in water volume.

The majority of respondents were positive about the effects that an appliance using less water would have, with 40% expecting it to have cheaper running costs and 35% that it would use less energy.

### ***Perception of water use by activity/appliance***

There are realistic appreciations of water usage by most appliances, with the exception of dishwashers (considered to be similar to a washing machine when, in fact, the latter uses three times more water) and toilets (once again perceived to use more water than in reality).

Respondents felt that, of the tasks listed, using a hosepipe to wash the car or watering the garden for 15 minutes using a sprinkler would use the most water. Washing the car with a bucket and sponge is thought to use 19% of the water used to wash a car with a hosepipe.

On average, respondents estimate that having a shower uses 45% less water than taking a bath. They also believe that washing the dishes using a washing-up bowl uses about the same amount of water as flushing the toilet. Washing machines and dishwashers are thought to use similar amounts of water.

### ***Use and potential for use of water-efficient devices***

There was considerable variation in the existing uptake of water-efficient devices, from 86% of respondents reporting to have a washing-up bowl to 10% having a cistern displacement device. However, in general current uptake was low.

Lack of information is one of the main barriers to the uptake of water-efficient devices as respondents do not know about the availability, price and performance (e.g. water-saving shower-heads, spray-taps, dual/low flush). Other barriers include cost (e.g. washing machines, dishwashers) and the perception that there is no need for some (e.g. washing-up bowl, watering can).

Respondents show a high level of willingness to use greywater recycled from their own baths, showers and washbasins for garden/flower/vegetable watering, if it was filtered and disinfected.

Less than one in six homes reported having a retro-fitted WC flushing device. However, two-thirds of respondents indicated that they would be willing to volunteer to have a retro-fitted device in their home fitted free of charge. Barriers to their uptake included perceived interruptions of privacy and dislike of strangers in the home. Those willing to try retro-fitted devices would choose to keep the device if performance was deemed acceptable, and half would be willing to pay to keep it.

Of those respondents who indicated that they would be willing to try a retro-fitted device, the highest proportion would prefer water company staff or an independent plumber to fit the device.

There was a positive response to the development of a new toilet where people would have to put down the toilet lid before flushing the toilet.

### **Attitudes to water company restrictions and demand management**

The majority of respondents thought all parties: households, businesses and water companies should be trying to save water (84%).

76% of respondents felt that water companies do not do enough to save water. The majority of respondents (72.2%) stated that they would *definitely/maybe* do more to save water if they perceived that the water companies were doing more to save water.

One in five respondents in water-stretched areas were either unsure or wrong about the water restrictions in place in their area. Younger respondents had the greatest uncertainty.

Half of respondents stated that if a drought order came into effect in their area for 12 months that banned all non-essential water use, it would bother them/their family *a bit* and a further 12% that it would *considerably affect me/my family's quality of life*.

At times of water scarcity and on the assumption that their water company is doing all it can to conserve water, the majority of respondents were very willing or fairly willing to accept hosepipe bans (80%) and the compulsory installation of water meters (53%). However, respondents were less willing to accept standpipes and rota cuts (38%), and drought permits that allow water companies to take more water from rivers but which may put more strain on fish and other wildlife (35%). However, most respondents are not willing to pay higher bills to avoid demand management strategies.

Over the total sample, respondents were generally unwilling to pay extra on their water bill to avoid water restrictions for the next twelve months. However those that were *very or fairly willing* to pay extra on their water bill to avoid restrictions (approximately 10%), were on average willing to pay between £12 and £20 per annum.

On average, respondents thought that just under one-third of water is lost by water companies through leakage. The vast majority of respondents were of the opinion that water companies should invest in leakage reduction (96%), with 62% stating that this should be only until the cost of leakage reduction is equal to the cost of water lost.

The majority of respondents (75%) would not be willing to pay extra on their water bill in order to enable water companies to invest in leakage reduction. However the percentage willing to pay increased to 40% if they knew that a significant proportion of their company's profits were being invested to reduce leakage.

### **Metering and pricing initiatives**

Just over half (53%) of respondents who are not charged for water via a meter do concern themselves with how much water they use. However, around one in every three (32%) strongly agreed/agreed that they don't need to worry about how much they use because they are not on a meter.

Metered respondents had varied opinions on whether being on a water meter meant they can use however much water they liked. Almost half (46%) stated that they *strongly agreed/agreed that they can use as much water as they liked*; whilst a smaller percentage (43%) *strongly disagreed/disagreed*.

## Summary

The majority of unmetered respondents stated that their water usage would not reduce if a meter was installed. The main barriers to meter installation were: respondents had not thought about it; they had never been approached or asked to have a meter; and concerns regarding rising bills.

However, comparison of attitudes and behaviour amongst metered and unmetered customers suggests that positive effects are possible from metering. Metered customers are more likely to be aware of water being a scarce resource and adopt more water-efficient activities than unmetered customers. Therefore, there is evidence of a link between metering and efficient users. But it is not clear whether metering has led to greater customer awareness and efficiency, or whether the more aware and efficient customers have chosen to be on a meter.

When asked what was the fairest way to charge customers for water services, 49% felt that *customers should be able to choose* and 46% that *all customers should be metered*.

Most respondents, metered (56%) and unmetered (58%), said that they would be more likely to reduce their water consumption if they had a display in the home that monitored their water usage and if they received information showing their use compared with the average user.

There were a range of views regarding support for increasing the unit price of water after a certain amount of water had been used, with 35% being *very/fairly supportive*, and 48% being *very/fairly unsupportive*.

Over half of respondents were *very/fairly unsupportive* of increasing the price of water only when there are restrictions in place (55%) and during high demand (55%).

The majority of respondents were supportive of small grants towards the purchase of water-efficient appliances.

## Educational Campaigns

Just under half of respondents who had bought a water-using appliance in the last five years indicated that they were aware of both the energy and water-efficiency ratings of the appliances (47%). However, the majority of all respondents were not aware of water-efficiency information although they were aware of energy-efficiency labelling.

Television adverts and messages regarding recycling are those that are recalled most. However many also recall messages on water conservation, partly on television, through leaflets/direct mail with their bills and in newspapers.

The most recalled water efficiency messages included: turn off the tap when cleaning your teeth; re-use dishwater; use a brick as a cistern displacement device; only filling the kettle with the water you need; and having a shower rather than a bath.

Most respondents would prefer to receive information about water conservation either in printed leaflets or on the television. However a significant number felt they were most receptive to messages in newspapers and on the Internet.

## Summary

No single organisation is trusted by all respondents to give advice about water efficiency, with 39% stating that they would trust their water company, 35% Ofwat, 22% Defra and 17% consumer organisations. There is therefore a need to involve more than one organisation when raising awareness and providing information and motivation or else there is the risk of alienating some groups.

Most respondents indicated that they would do more to save water if:

- they thought their water company was doing more (i.e. reduce leakage and/or improve collection and storage of water);
- water-efficient devices were cheaper;
- it was easy to get information on how to conserve water;
- someone came round to their house to install water-efficient devices; and
- it was easier to buy water-efficient devices from a local shop.

## Recommendations

Our recommendations based on the key findings from the survey can be split into **psychological** and **physical/facilitating** factors that may aid actual behaviour change regarding water consumption.

Psychological Factors are about “putting people in the right frame of mind to alter their behaviour”, such as:

- convincing the public, especially those in non water-stretched areas, that there is a need to minimise wasteful use of water;
- convincing the public that water companies are doing all they can to reduce leakage and to manage supply;
- for some consumers, there is a need to “*break that habit*”;
- convincing the public that water-efficient times are also energy and thus cost-efficient; and
- there was evidence to suggest that metering would put some people in the right frame of mind to be efficient with water, through financial savings. But there was also evidence to suggest that metering would put others in the wrong frame of mind allowing them to think that as they pay for it, it is therefore up to them how they use it.

Physical/Facilitating Factors are about “putting people in a position to be able to alter their behaviour” such as:

- the provision of information on their own water usage (via in-home displays, comparisons with average bill-payers);
- encouragement and information on water-efficient activities;
- information on the availability and performance of water-efficient appliances;

- encouragement and information on voluntary retro-fit of water-efficient items in the home;
- information on systems that recycle greywater and finding a plumber that can install them;
- TV articles and leaflets seem to be the most effective means of informing and motivating the public; and
- rented accommodation appears to be a barrier to the uptake of water-efficient devices. Consideration should therefore be given to encouraging landlords and housing associations to incorporate water-efficient devices.

The report also highlights the need to overcome different barriers for different consumer segments. For example, it is necessary to convince younger consumers of the need for water conservation, whereas older consumers are aware of the need to conserve water, however a lack of awareness and knowledge regarding where water-efficient devices can be purchased and how they are fitted are barriers.

Cost is a key barrier for the low socio-economic group, this may be overcome by focusing on linking water-efficiency with energy and cost savings and providing information on low cost ways of introducing water-efficient devices (e.g. brick in the toilet as a cistern displacement device) or providing grants. Respondents in the high socio-economic group require information on how best to conserve water, how to purchase/fit retro-fit devices, and, as they make use of the energy labelling on appliances. Point of purchase information is therefore an opportunity for this group.



1



# 1 Introduction

## 1.1 Background

- 1.1.1 The Consumer Council for Water (CCWater) represents the interests of domestic and business customers within the water industry. The body came into being on 1 October 2005 and replaced WaterVoice.
- 1.1.2 A fundamental component of its Forward Work Programme and Operational Business Plan is to improve consumer awareness and understanding of the scarcity and value of water. Furthermore, CCWater aims to encourage a sensible attitude towards the use of water, as set out in its *"Water on tap – a safe, reliable supply of water, used wisely"*.
- 1.1.3 The Water Saving Group (WSG) has a remit to promote the efficient use of water in households across England. Its action plan includes work on understanding and changing customer perceptions and raising awareness, led by CCWater. To achieve their goal, the WSG needs to have a clear understanding of:
- consumer awareness of water resources;
  - consumers' attitudes and inclination towards water-efficient usage; and
  - consumers' current knowledge of water-efficient and non efficient appliances around the home.
- 1.1.4 CCWater is taking the lead in understanding how the group can best change consumers' awareness, perceptions and behaviour to value water as a resource and to develop a plan to educate consumers into best practice of efficient water usage, leading to a more sustainable use of a scarce resource.
- 1.1.5 A wide-ranging review of previous research exploring one or more of these issues was conducted (in early 2006), and a number of knowledge gaps were identified. To complete their knowledge base, CCWater commissioned two parallel research studies (one qualitative, one quantitative).
- 1.1.6 The qualitative research element has been administered via a forum of 100 consumers, and has been procured and reported separately.
- 1.1.7 MVA Consultancy, in association with WRc, was commissioned to conduct the quantitative research study. A large national survey was undertaken in August 2006. A representative sample of more than 2,000 domestic consumers was achieved. The research aims to provide clear insight into the influences on consumers' current and future attitudes and behaviour so that CCWater can develop an educational programme to better inform consumers and, ultimately, reduce water consumption without jeopardising society's public health and hygiene levels.
- 1.1.8 The overall aim of the research is to provide evidence-based **conclusions** on consumers' views on water use in the home and workplace, and provide **recommendations** on how consumers can be encouraged to use water more wisely.

### 1.2 Business objective

- 1.2.1 CCWater's business objective is to secure a wider and better understanding of the extent of consumers' knowledge of water resources, and their behaviour and attitudes to water consumption and water efficiency practices. This will be used to inform the development of an educational plan (employing social marketing tools) that will engage consumers to think about using water wisely and signpost sources of practical advice to enable them to make informed choices.

### 1.3 Research Objectives

- 1.3.1 The research has a number of objectives as follows:

#### Awareness of water as a resource

- Establish how consumers relate the water they use in the home to a natural resource (consumers' understanding of the source of tap water and the water cycle).
- Establish the importance consumers attach to water as a resource compared to other environmental issues such as energy, pollution, transport, recycling.
- Establish how consumers understand the impact of weather and increased demand (rising consumption and new developments) on water resources and supply.
- Establish how consumers link climate change to potential water shortages and/or increased flooding.

#### Behaviour and attitudes to use of water in the home

Establish consumer behaviour and attitudes in relation to:

- Personal water use;
- Water appliances (e.g. washing machines, dishwashers);
- Water-efficient devices (e.g. cistern displacement units such as hippos, shower aerators);
- Non essential use (e.g. hosepipes, pressure washers, garden watering, car washing);
- Retro fit of water efficiency devices such as dual flush, replacement of bathroom and water appliances; and
- How the role of plumbers may influence consumers' views in their choice of fittings.

### Awareness of volume of water used

- Quantify consumers' awareness of the volume of water used around the home for individual activities.

### Awareness of water efficiency messages

- Establish the impact of existing water efficiency messages and whether the media format and/or source or conveyor of the message makes a difference.
- Establish the actions taken by consumers when they have received or seen water efficiency messages and understand what motivated them to take action.
- Establish what types of actions would influence change and how these should be designed to deliver greatest impact.
- Establish the barriers to adoption of water efficiency messages and application of practices.
- Establish how consumers would react to water efficiency labelling on appliances.
- Establish customers' willingness to pay for water efficiency measures, whether it be in the form of increases in bills or by buying replacement appliances on the basis of their water efficiency.

### Susceptibility to take up

- Establish the form of media that consumers would prefer if companies were to retrofit water efficiency devices. This might be through telephone or letter to arrange an appointment, or impromptu visits to the home.
- Establish whether consumers would prefer a plumber or water company staff to undertake the work.
- Identify the householders that are more likely to accept water efficiency measures.

### Attitude to water company restrictions on use and demand management approaches

- Establish consumers' views on water company restrictions on use of the water supply through: hosepipe bans, drought orders, bans on non-essential use, standpipes and rota cuts, the prospect of compulsory metering water scarce areas.
- Establish consumers' attitudes to water company demand management actions on leakage and use of pressure reductions.
- Establish customers' views on leakage to get an understanding of what customers perceive leakage to be, what the economic level of leakage is about, the issue of cost effectiveness of leakage detection and remediation, and the impact on bills of tackling all leakage.

### Attitude to metering

- Establish how consumers regard metering as a fair method of charging for water services and how they would react to being metered on a compulsory basis.
- Establish how the type and location of a water meter affects consumers' behaviour in monitoring their consumption and employing water efficiency measures.
- Establish consumer reaction to the potential use of price signals through metered tariffs, and whether these would impact on consumption patterns.
- Establish how more information about the optant option would make customers consider option for a meter. (See project specification – this was an omitted research objective).

### Education/social marketing

- Establish whom consumers trust for advice and whom they will listen to.
- Establish what media will grasp consumers' attention when conveying messages.
- Establish how consumers prefer to access information and the format it should be in.
- Establish how to engage with consumers to encourage them to think more about their use of water and to value it as a resource.
- To determine how best to employ social marketing tools to effect change and make an impact.

## 1.4 Report structure

- 1.4.1 In the following chapter, we outline the methodology adopted to achieve these objectives. Chapters Three to Ten detail the research results and Chapter Eleven highlights study conclusions and recommendations.

2



## 2 Methodology

### 2.1 Background

- 2.1.1 It is worth noting that the fieldwork period coincided with a drought, particularly in southern England. In addition, water companies in the South East, in conjunction with the Environment Agency, increased their collective promotional activities in the area of water efficiency. An umbrella website<sup>1</sup> was conceived in Spring 2006 to offer public access to up-to-date information on water resources, water company activities and current restrictions. Other activities which took place throughout the summer included leafleting consumers with water efficiency messages, billboard campaigns, supporting county Water Festival events (Hampshire and Sussex) and offering information and water efficiency packs through major DIY retailers<sup>2</sup>.
- 2.1.2 The fieldwork also took place during a sustained period of media attention on water infrastructure leakage and the commencement of the enquiry into Thames Water desalination plant and public consultation on their new reservoir proposal.

### 2.2 Research Design

- 2.2.1 In order to deliver the necessary level and depth of information, a large-scale quantitative survey was undertaken. The survey obtained the views of a representative sample of customers across a number of water company areas. The survey was administered face-to-face due to the subject matter, complexity of issues and the need for unprompted responses.

### 2.3 Sampling

- 2.3.1 The scale of the national survey needed to facilitate investigation of attitudes and behaviour amongst different consumer segments. There is considerable evidence<sup>3</sup> that metered customers have greater awareness of their water use. A further hypothesis was that consumers in water-stretched areas would be more aware and efficient than people in non water-stretched areas. Our sampling strategy therefore included these two criteria. In addition, our sample design took into account the possibility of differences in opinions in rural and urban areas and across demographic segments.
- 2.3.2 Water-stretched areas are areas identified as having either significant or large deficits in the supply-demand balance and showing low water availability per head (based on data from the Environment Agency). We have split water-stretched areas into two further categories according to whether restrictions were in place at the time of the study. It was thought that it may be revealing to study whether consumers' attitudes are influenced by the degree to which consumers have been subjected to publicity, awareness campaigns and demand management policies.

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<sup>1</sup> [www.beatthedrought.com](http://www.beatthedrought.com)

<sup>2</sup> <http://www.beatthedrought.com/wereBeatingTheDrought/whatAreTheWaterCompaniesDoing/bandq2.asp>

<sup>3</sup> Review of research into public perceptions and attitudes towards household water use and water resources. Consumer Council for Water (March 2006)

2.3.3 In total, 2,006 interviews were conducted - 1,005 in water-stretched areas with a ban in place, 500 in water-stretched areas without a ban, and 501 in non water-stretched areas.

2.3.4 To reduce the risk of any differences identified for the water categories being just a water company effect, a minimum of two water companies were included in the sampling frame for each water category area. The following water company areas were included in the fieldwork:

- Water-stretched with restrictions: Southern Water, Thames Water, Folkestone and Dover;
- Water-stretched without restrictions: Anglian Water, Cambridge; and
- Non water-stretched: Northumbrian North, United Utilities.

2.3.5 Through the application of industry indices, our sampling approach has provided a controlled basis to ensure sufficient representation of the key consumer segments. That is, by:

- water-stretched with restrictions, water-stretched without restrictions and non water-stretched areas;
- metered and unmetered consumers;
- rural and urban consumers;
- bill-payers (and spouses) and non bill-payers; and
- personal details (age, employment, SEG).

2.3.6 Population catchment areas were defined for each of the three water-stretched categories and according to high or low penetration of metering. Within each of these, we randomly selected Census Output Areas (OAs). The randomly selected OAs were cross-referenced with the Postal Address File (PAF) to derive a detailed address list for each survey site. Quotas were then set according to age, employment status and SEG (socio-economic group) that accurately reflected Census 2001 statistics for the population of residents in the OA.

## 2.4 Questionnaire design

2.4.1 A draft pilot questionnaire was designed based on the project objectives and circulated to the WSG for comment. It included both fixed response questions, in order to quantify response and identify differences in views across the sample, and free comment questions to aid understanding of responses.

2.4.2 Based on comments, changes to the pilot questionnaire were agreed at the Steering Group meeting on 13<sup>th</sup> July 2006. The questionnaire was further reviewed based on the pilot surveys. The final version of the questionnaire, Showcards and interviewer briefing notes can be found in Appendix A.

### 2.5 Pilot

- 2.5.1 We considered that a pilot survey was essential as it represents a vital stage in the survey process, allowing the questionnaire to be checked to ensure that it is clear, unambiguous and appropriate for the setting in which it will be administered.
- 2.5.2 A pilot consisting of 22 interviews was conducted during the period 15<sup>th</sup>-19<sup>th</sup> July. Pilot interviews took place in urban and rural areas in both Northern and Southern England. Prior to the pilot interviews, interviewers were briefed by a member of MVA's project team who then accompanied them as an observer for the first days interviewing.
- 2.5.3 All completed questionnaires were reviewed. Based on this review, observers' opinions and interviewer/respondents comments, a revised questionnaire was drafted.
- 2.5.4 A second, smaller, pilot was conducted to ensure that the final version of the questionnaire was fit for purpose.

### 2.6 Main fieldwork

- 2.6.1 The survey was conducted during a 5 week period from 28<sup>th</sup> July to 1<sup>st</sup> September 2006. The survey consisted of a pen and paper interview taking approximately 30 minutes to complete.
- 2.6.2 Interviews were conducted during the week, at weekends and at various times of the day in order to achieve the desired quotas.

### 2.7 Data entry and analysis

- 2.7.1 Free comment questions were initially coded by hand, with each comment grouped with like comments and designated a numerical code. All data was then entered by trained staff using Snap<sup>4</sup> data entry, which has a range of checks ensuring accurate entry.
- 2.7.2 Data was then cleaned and analysed using SPSS<sup>5</sup>. In order to ensure that results are representative of consumers, data was weighted by age, employment status, SEG and metered/unmetered within each of the water category areas. The total sample was then weighted based on the sample size within each of the three water category areas compared to the total number of households in that area. Full details of the weightings applied can be found in Appendix B.
- 2.7.3 Quotas and weighting of the data resulted in a similar profile across the different water category areas with the following exceptions: there is a higher percentage of metered customers in the water-stretched areas without restrictions (32%), compared to water-stretched areas with restrictions (23%) and non water-stretched areas (22%); there is a lower percentage of bill-payers in the water-stretched areas with restrictions (82%) compared to the water-stretched areas without restrictions and non water-stretched areas (90%); and there is a higher percentage of respondents in the high socio economic group in

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<sup>4</sup> Snap survey software version 8 ([www.snapsurveys.com](http://www.snapsurveys.com))

<sup>5</sup> SPSS statistical analysis package for social research data

water-stretched areas with restrictions (26%) compared to water-stretched areas without restrictions (21%) and non water-stretched areas (19%). Full details of the total sample profile and the water category area samples before and after weighting can be found in Appendix C. In addition, a full dataset has been provided.

## 2.8 Reporting

- 2.8.1 In the following chapters, we present the main results under each of the main research headings, as set out in the previous chapter. We have analysed all the questions and, for completeness, provide results tables for all questions, including cross-tabulations in Appendix D. We have also undertaken a range of further segmented analysis (i.e. by metered/unmetered; rural/urban; SEG (AB –high, CDE – low); bill-payers/non bill-payers; age; gender; etc) but only report significant differences (at 99% level of significance) in subsequent chapters of this report.
- 2.8.2 Table 2.1 shows where the results related to each of the study objectives can be found.

**Table 2.1 Where to find results related to each of the study objectives**

Study objective	Report chapter
<b>Awareness of water as a resource</b>	
Establish how consumers relate the water they use in the home to a natural resource	3
Establish the importance consumers attach to water as a resource compared to other environmental issues	3
Establish how consumers understand the impact of weather and increased demand on water resources and supply	3
Establish how consumers link climate change to potential water shortages and/or increased flooding	3
<b>Behaviour and attitudes to water in the home</b>	
Behaviour and attitudes in relation to personal water use	4
Behaviour and attitudes in relation to water appliances	5
Behaviour and attitudes in relation to water-efficient devices	7
Behaviour and attitudes to non essential water use	4
Behaviour and attitudes to retro fit of water efficiency devices	7
How the role of plumbers may influence consumers' views in their choice of fittings	5

<b>Awareness of volume of water used</b>	
Awareness of the volume of water used around the home for individual activities	6
<b>Awareness of water efficiency messages</b>	
Establish the impact of existing water efficiency messages and whether the media format and/or source or conveyor of the message makes a difference	10
Establish the actions taken by consumers when they have received or seen water efficiency messages and understand what motivated them to take action	10
Establish what types of actions would influence change and how these should be designed to deliver greatest impact	10
Establish the barriers to adoption of water efficiency messages and application of practices	5,7, 10
Establish how consumers would react to water efficiency labelling on appliances	10
Establish consumers' willingness to pay for water efficiency measures, whether it be in the form of increases in bills or by buying replacement appliances on the basis of their water efficiency	5
<b>Susceptibility to take up</b>	
Establish the form of media that consumers would prefer if companies were to retrofit water efficiency devices	7
Establish whether consumers would prefer a plumber or water company staff to undertake the work	7
Identify the householders that are more likely to accept water efficiency measures	10
<b>Attitude to water company restrictions on use and demand management approaches</b>	
Establish consumers' views on water company restrictions on use of the water supply through: hosepipe bans, drought orders, bans on non-essential use, standpipes and rota cuts, the prospect of	8

compulsory metering water scarce areas	
Establish consumers' attitudes to water company demand management actions on leakage and use of pressure reductions <sup>6</sup>	8
Establish customers' views on leakage to get an understanding of what customers perceive leakage to be, what the economic level of leakage is about, the issue of cost effectiveness of leakage detection and remediation, and the impact on bills of tackling all leakage	8
<b>Attitude to metering</b>	
Establish how consumers regard metering as a fair method of charging for water services and how they would react to being metered on a compulsory basis	9
Establish how the type and location of a water meter affects consumers' behaviour in monitoring their consumption and employing water efficiency measures	9
Establish consumer reaction to the potential use of price signals through metered tariffs, and whether these would impact on consumption patterns	9
Establish how more information about the optant option would make customers consider option for a meter	9
<b>Education/social marketing</b>	
Establish whom consumers trust for advice and whom they will listen to	10
Establish what media will grasp consumers' attention when conveying messages	10
Establish how consumers prefer to access information and the format it should be in	10
Establish how to engage with consumers to encourage them to think more about their use of water and to value it as a resource	10
To determine how best to employ social marketing tools to effect change and make an impact	10

<sup>6</sup> Water pressure questions were excluded from the questionnaire as it was felt that it would be difficult to gain meaningful feedback without effecting the length of the interview.

3



## 3 Attitudes to environmental issues and knowledge of the water cycle

### Summary of chapter

- There was a high level of unprompted concern regarding environmental issues; with approximately one-third of respondents mentioning environmental issues as the main challenges facing western society, one-third non-environmental issues and one-third stating that there were no challenges or they were unsure. When asked what they considered to be the main environmental challenges facing society, 35% mentioned climate change, 21% pollution, 12% energy supplies and nearly one in ten concerns about water conservation.
- Respondents consider water conservation to be relatively important when compared with other environmental issues, with energy conservation, air pollution and climate change considered to be of greater importance than water conservation and recycling, waste disposal and sustainable transport to be of lower importance.
- The majority of respondents claim to undertake certain environmentally-aware activities, most commonly switching off lights in an unused room or re-using/recycling plastic bags. Of the list presented to respondents, more people carry out the energy-saving activities than the water-saving activities.
- Older respondents and metered customers were more likely to report recycling water in some way.
- The majority of respondents correctly asserted that: the water in their taps comes from rainwater, rivers and lakes; water is not naturally pure and does need treatment; water consumption has increased in recent years; and our drainage system is at least partly to blame when we have flooding.

### 3.1 Introduction

- 3.1.1 This chapter of the report focuses on the first objective, awareness of water as a resource. It includes respondents' views regarding:

- the most important environmental issues facing society;
- the importance they attach to water as a resource compared to other environmental issues;
- how they relate the water they use in the home to a natural resource;
- their views regarding the impact of weather and increased demand on water resources and supply, and
- whether they link climate change to potential water shortages and/or increased flooding.

3.1.2 On introduction, interviewers explained to respondents that:

“This survey is being conducted on behalf of consumer organisations and Government to help understand how we live and use household appliances”.

3.1.3 This was so as **not** to alert respondents’ minds to water issues from the start.

## 3.2 The environment

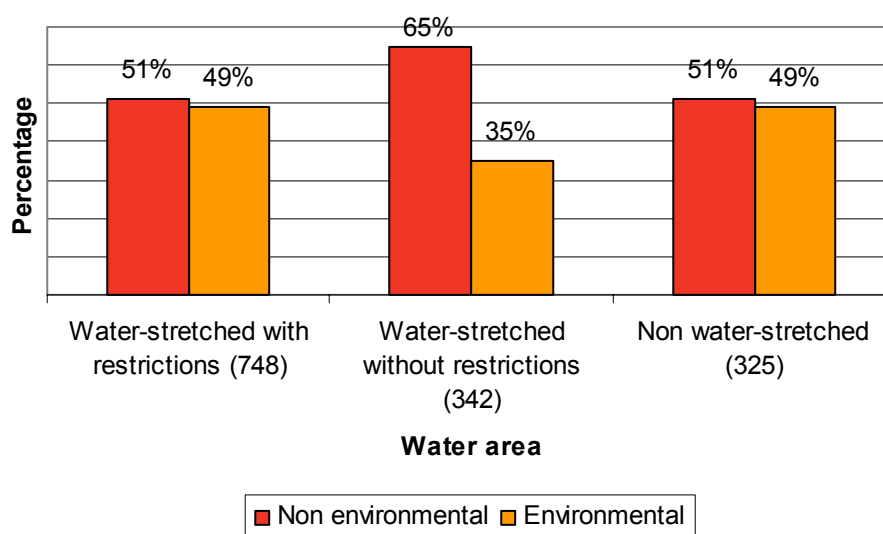
3.2.1 Respondents were asked to state what they believe are the main challenges facing a developing and changing society like ours in the west. This provoked a range of responses, with just over one third of respondents mentioning non-environmental issues and, just under a third, environmental issues. Interestingly, just under one-third did not know or thought that there were no challenges facing society. Results are shown in Table 3.1.

**Table 3.1 Main challenges facing us today**

Issue	Percentage %
Non-environmental	39%
Environmental	30%
Don’t Know/Nothing	31%
(Base 2006) <sup>7</sup>	

3.2.2 As can be seen in Figure 3.1, there was variation in response across each of the three water category areas, with water-stretched areas the most likely to highlight an environmental issue.

**Figure 3.1 Main challenges facing us today – by water area**



<sup>7</sup> The number of respondents who answered the question (sample size)

### 3 Attitudes to environmental issues and knowledge of the water cycle

- 3.2.3 Respondents in the high SEG group were more likely to highlight an environmental issue as the main challenge facing society today (40% high, compared to 28% low).
- 3.2.4 Respondents who did not identify environmental issues as one of the main challenges facing a developing and changing society were prompted to highlight what they considered to be the main environmental issues. When looking at the environmental issues highlighted in both questions, climate change and global warming were frequently mentioned along with pollution and conserving energy supplies. Water conservation was mentioned by some respondents (less than one in every ten). Details of the main responses are shown in Table 3.2.

**Table 3.2 Main environmental issues/challenges facing us today**

Issue	Percentage
Climate change/Global warming	35%
Pollution	21%
Energy supplies	12%
Water conservation	8%
Recycling	7%
(Base 622)	

- 3.2.5 Respondents in water-stretched areas with restrictions were more likely to mention water conservation as the main environmental issue facing society today (11%).

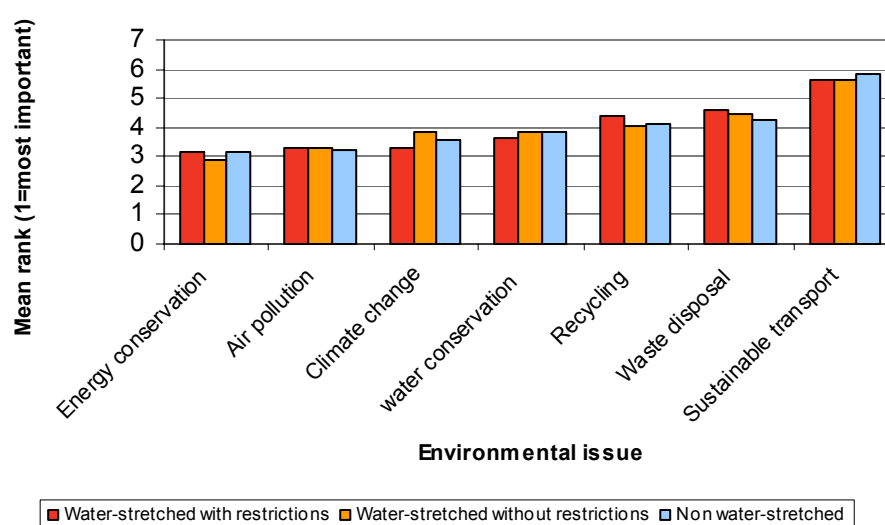
### 3.3 Relative importance of environmental issues

- 3.3.1 Respondents were asked to rank a range of environmental issues, including water conservation, by importance. In order to reduce order effects, interviewers were instructed to alternate the order of the presentation of issues. Mean importance ranks and the percentage of respondents rating each of the issues as the most important are shown in Table 3.3.

**Table 3.3 Ranking of environmental issues in order of importance**

Issue	Mean rank (1=most important, 7=least important)	% ranked first
Energy conservation	3.04	21%
Air pollution	3.28	22%
Climate change	3.58	30%
Water conservation	3.77	9%
Recycling	4.18	10%
Waste disposal	4.42	7%
Sustainable transport	5.70	2%
(Base 1980)		

3.3.2 As can be seen in Table 3.3, respondents consider water conservation to be relatively important when compared with other environmental issues, with a mean rank of 3.77. For the sample overall, energy conservation, air pollution and climate change were considered to be of greater importance than water conservation; and recycling, waste disposal and sustainable transport to be of lower importance. The pattern of response was the same across the three water category areas as shown in Figure 3.2.

**Figure 3.2 Ranking of environmental issues in order of importance – by water area**

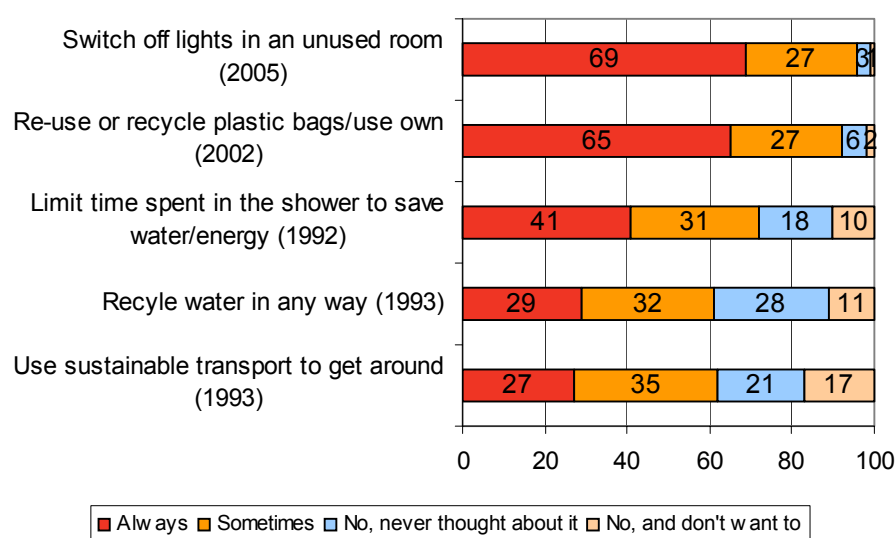
(Base 1980)

- 3.3.3 Less than one in every ten respondents (9%) considered water conservation to be the most important environmental issue. More than twice as many thought energy conservation was more important. An examination of the profile of respondents who ranked water conservation first, showed that there were fewer in the younger age group (24% of respondents who ranked water conservation first were aged 16-34, 33% who ranked other issues first were aged 16-34) and more in the older age group (32% of respondents who ranked water conservation first were aged 60+, 21% who ranked other issues first were aged 60+).
- 3.3.4 Respondents residing in urban areas, and those aged 16-34 were more likely to have thought air pollution was the most important environmental issue.

#### 3.4 Environmental behaviour

- 3.4.1 Respondents were asked to indicate whether or not they undertake certain environmentally-aware activities. The majority of respondents claimed to demonstrate these behaviours in some way, most commonly switching off lights in an unused room and re-using or recycling plastic bags. Other than for using sustainable transport, only a small percentage of respondents indicated that they would never, or never want to, undertake the activity.
- 3.4.2 Of the list presented to respondents, more people carry out the energy-saving activities than the water-saving activities. Full details of results are shown in Figure 3.3.
- 3.4.3 Respondents in water-stretched areas with restrictions were more likely to report limiting the amount of time they spent in the shower to save water/energy than those in other areas (78% water-stretched with restrictions, 71% water-stretched without restrictions, 68% non water-stretched) and respondents in water-stretched areas with and without restrictions in place were more likely to report recycling water in some way compared to respondents in non water-stretched areas (68%, 65%, 44% respectively). Results by water area for the water conservation questions are detailed in Tables 3.4 and 3.5.

**Figure 3.3 Environmental behaviour**



**Table 3.4 Limit time spent in the shower to save water/energy – by water area**

Response	Water-stretched with restrictions	Water-stretched no restrictions	Non water- stretched
Always	42%	35%	36%
Sometimes	31%	29%	25%
No, never thought about it	15%	15%	18%
No and don't want to	5%	11%	10%
(Base 1825)			

**Table 3.5 Recycle water in any way – by water area**

Response	Water-stretched with restrictions	Water-stretched no restrictions	Non water- stretched
Always	36%	27%	21%
Sometimes	32%	38%	23%
No, never thought about it	24%	23%	35%
No and don't want to	7%	9%	17%
(Base 1949)			

- 3.4.4 Bill-payers, older people and metered customers were more likely to limit the time they spent in the shower to save water/energy. In addition, older respondents and metered customers were more likely to recycle water in some way.
- 3.4.5 Non bill-payers and young people were less likely to always switch off lights in an unused room. Younger respondents, those residing in urban areas, and those not in employment, were more likely to always use sustainable transport to get around. Bill-payers and older respondents (age 35+) were more likely to re-use or recycle plastic bags.

### 3.5 The water cycle

- 3.5.1 In order to gain an overview of respondents' understanding of water use and the water cycle, they were asked whether they agreed or disagreed with a list of statements. Results are detailed below (shown excluding Don't Knows thus resulting in different base sample sizes).

**Table 3.6 Knowledge of the water cycle**

Question	Strongly Agree	Agree	Neither	Disagree	Strongly Disagree
We use more water in our homes now than we did in the past (Base 2001)	36%	49%	7%	7%	1%
When/where we have flooding, it is at least partly because our drainage systems cannot cope with heavy rainfall (Base 1983)	24%	53%	10%	11%	2%
The water in my taps comes from rainwater and rivers and lakes (Base 1942)	21%	58%	6%	13%	3%
When/where we have flooding, it is at least partly because of climate change (Base 1964)	17%	55%	14%	13%	2%
Rainfall has been at broadly the same level for the last ten years (Base 2005)	7%	26%	14%	40%	13%
Water is naturally pure, so doesn't need treatment (Base 2005)	3%	11%	8%	51%	27%

3.5.2 The majority of respondents correctly asserted that:

- the water in their taps comes from rainwater, rivers and lakes;
- water is not naturally pure so does need treatment;
- water consumption has increased in recent years<sup>8</sup>; and
- our drainage system is at least partly to blame when we have flooding.

3.5.3 The majority of respondents disagreed that rainfall has been at broadly the same level for the last ten years. It is suspected that the public response may have been conditioned by the record-breaking temperatures in England in July, the high-profile season of BBC television programmes on Climate Change and, following events such as the flooding in Boscastle, the perception that seasonal weather patterns are becoming more extreme. It is certainly true that there has been considerable variation in annual rainfall totals in the last

<sup>8</sup> Although data on household water consumption are sparse, it is reported by the EA ([http://www.environment-agency.gov.uk/yourenv/eff/1190084/people\\_lifestyles/household/?version=1&land=e](http://www.environment-agency.gov.uk/yourenv/eff/1190084/people_lifestyles/household/?version=1&land=e)) that household consumption has increased, on average, by 51% since 1971. This is doubtless a combined response to the availability and uptake of water-using devices and a decrease in occupancy rates for households (and thus reduced efficiency on a per-household basis).

decade, but this has not amounted to a statistically significant change from the 1961-1990 LTA for the period 1990-2004<sup>9</sup>.

- 3.5.4 There was a similar pattern of response across the different segments, with the exception that older respondents (aged 61+) were more likely to agree that '*rainwater has been at broadly the same level for the last ten years*'. In addition, respondents in water-stretched areas with restrictions were less likely to strongly agree/agree that we use more water in our homes now than in the past (77% water-stretched areas with restrictions, 89% water-stretched areas without restrictions, 85% non water-stretched areas).

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<sup>9</sup> Analysis by WRc using annual regional timeseries data from  
<http://www.defra.gov.uk/environment/statistics/inlwater/iwrainfall.htm#iwtb1>

4



## 4 Behaviour and attitudes to water use in and around the home

### Summary of chapter

- 58% of respondents in the total sample think that the water shortage in their area is 'not very serious' or 'not at all serious'.
- This is not the majority view in water-stretched areas with restrictions, where three-quarters of respondents consider the local situation to be 'quite serious' or 'very serious'. However, in water-stretched areas where there are no restrictions, only one-third of consumers hold this view.
- Most respondents think wasteful demand and management of supply are jointly to blame for the water shortage. A higher percentage of respondents in water-stretched areas with restrictions strongly agreed/agreed that *it hasn't rained enough*, *lack of actions by water companies* and *climate change* were causes of the water shortage compared to the other areas.
- In general, respondents stated that both they themselves, and members of their household, do their bit to save water. However, respondents are less confident about the water saving behaviour of others in their household. It is also in contrast to the majority of respondents believing that one of the causes of the water shortage is people wasting water. Respondents in water-stretched areas with restrictions and metered respondents were more likely to state that they *always* do their bit to save water.
- Most respondents said that most of the time they undertake activities that reduce the amount of water wasted, with the highest being 72% of respondents who wash dishes in a bowl/sink, rather than under a running tap. In addition, the majority of respondents who undertake these activities do so to save water, with the lowest percentage being 67% of respondents who take a shower rather than a bath to save water. Activity rates could still however be improved, especially the collection of rain water and re-use of washing-up water, which is currently undertaken by relatively few.
- In general, respondents in water-stretched areas and metered respondents were more likely to report conducting water-saving activities compared to respondents in non water-stretched areas and unmetered respondents.
- Barriers to water-saving behaviour include habit, lack of convenience, lack of necessity and, in the case of collecting rainwater, practical reasons (lack of space etc.).

### 4.1 Introduction

- 4.1.1 This section of the report focuses on respondents' current behaviour and attitudes to water use in and around the home including non-essential water use.

### 4.2 Water shortage

- 4.2.1 Respondents were asked to indicate how serious they thought that the water shortage was in their area. Across the total sample, the majority of respondents were of the opinion that the

water shortage in their area was *not very/not at all serious* (58%). This is shown in Table 4.1.

**Table 4.1 How serious do you think the water shortage is in the area where you live?**

Response	Percentage
Very serious	11%
Quite serious	27%
Not very serious	31%
Not at all serious	27%
Don't know	5%
(Base 2005)	

- 4.2.2 However, not surprisingly, there were differences across the water category areas, with the majority of respondents residing in water-stretched areas with restrictions stating that the water shortage in their area was *very/quite serious* (75%). Respondents in water-stretched areas without restrictions (35%) were also more likely to feel that the water shortage in their area was *very/quite serious* compared to those in non water-stretched areas (7%). These data are shown in Table 4.2.

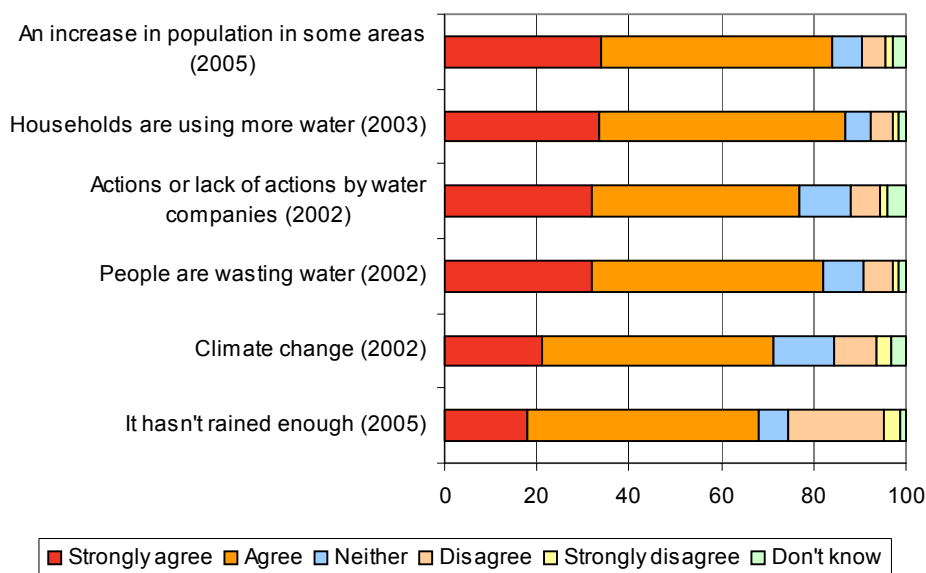
**Table 4.2 How serious do you think the water shortage is in the area where you live? – by water area**

Response	Water-stretched with restrictions	Water-stretched no restrictions	Non water- stretched
Very serious	30%	4%	<1%
Quite serious	45%	30%	7%
Not very serious	18%	39%	34%
Not at all serious	4%	19%	55%
Don't know	3%	7%	4%
(Base)	(1005)	(500)	(501)

- 4.2.3 Respondents in high SEG groups were more likely to believe that the water shortage in their area was *very/quite serious* than respondents in low SEG groups (46% and 35% respectively). However, this difference in SEG was not significant when tested on sub samples of water area, thus indicating that water category area had a greater influence on response than SEG.

- 4.2.4 Respondents were asked to indicate how much they agreed/disagreed that certain prompts were the cause of the water shortage. Results are shown in Figure 4.1.

**Figure 4.1 Cause of water shortage**



- 4.2.5 As can be seen in Figure 4.1, the majority of respondents believed that all of the reasons prompted are a cause of the water shortage, with *households are using more water* (87% strongly agree/agree), *an increase in population in some areas* (84% strongly agree/agree), and *people are wasting water* (82% strongly agree/agree) gaining the greatest level of agreement. However, a high percentage (77%) also stated that the shortage was due to *actions or a lack of actions by water companies*.
- 4.2.6 A higher percentage of respondents in water-stretched areas with restrictions in place, strongly agreed/agreed that *it hasn't rained enough*, *actions or lack of actions by water companies* and *climate change* were causes of the water shortage compared to the other areas. These results are shown in Tables 4.3 – 4.5.

**Table 4.3 Causes of water shortages - It hasn't rained enough – by water area**

<b>Cause</b>	<b>Water-stretched with restrictions</b>	<b>Water-stretched no restrictions</b>	<b>Non water- stretched</b>
Strongly Agree	32%	15%	8%
Agree	50%	50%	51%
Neither/nor	6%	8%	6%
Disagree	10%	25%	26%
Strongly Disagree	<1%	2%	8%
Don't Know	1%	1%	2%
(Base)	(1004)	(500)	(501)

**Table 4.4 Causes of water shortages - Actions or lack of actions by water companies – by water area**

<b>Cause</b>	<b>Water-stretched with restrictions</b>	<b>Water-stretched no restrictions</b>	<b>Non water- stretched</b>
Strongly Agree	48%	25%	25%
Agree	37%	53%	42%
Neither/nor	8%	13%	13%
Disagree	4%	5%	10%
Strongly Disagree	<1%	0%	4%
Don't Know	3%	4%	6%
(Base)	(1003)	(498)	(501)

**Table 4.5 Causes of water shortages – Climate change – by water area**

Cause	Water-stretched with restrictions	Water-stretched no restrictions	Non water- stretched
Strongly Agree	31%	15%	19%
Agree	45%	57%	48%
Neither/nor	11%	15%	14%
Disagree	7%	9%	11%
Strongly Disagree	2%	2%	5%
Don't Know	5%	3%	3%
(Base)	(1004)	(498)	(500)

- 4.2.7 Respondents in rural areas were more likely to strongly agree/agree (89%) that *an increase in population in some areas* was a cause of the water shortage than urban respondents (80%).
- 4.2.8 Bill-payers were more likely to strongly agree/agree that *actions or a lack of actions by water companies* were a cause of the water shortage (79%) compared to non bill-payers (65%). Also, respondents aged 35-60 were more likely to strongly agree/agree (80%) than those aged 16-34 (72%) or over 60 (76%).

### 4.3 Water saving behaviour - general

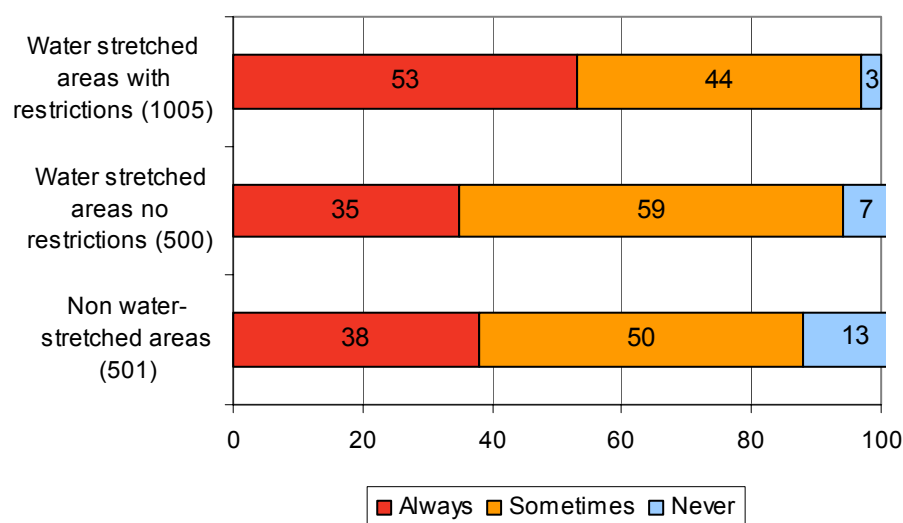
- 4.3.1 Respondents were asked whether they themselves, and the members of their households, did their bit to save water. As can be seen in Table 4.6, in general, respondents stated that both they themselves, and members of their household, do something to save water. Respondents are less confident about the water saving behaviours of others in their household (this could particularly be related to children). It is also in contrast to the majority of respondents believing that one of the causes of the water shortage is people wasting water, suggesting a perception that they 'do their bit' whilst other people are more wasteful!.

**Table 4.6 Do your bit to save water?**

Question	Always	Sometimes	Never
Do you think you do your bit to save water? (Base 2006)	41%	51%	8%
Do you think that others in your household do their bit to save water? (Base 1862)	35%	56%	9%

- 4.3.2 Respondents in water-stretched areas with restrictions were more likely to state that both themselves and those in their households *always* do their bit to save water. This is shown in Figure 4.2.

**Figure 4.2 Always do my bit to save water**



- 4.3.3 Respondents who are charged for water via a meter, were more likely to state that they *always* do their bit to save water (47%) compared to unmetered households (40%). Similarly, bill-payers were more likely to report that they *always* do their bit (42%) compared to non bill-payers (33%).
- 4.3.4 In addition, the proportion of respondents who stated that they themselves and other members of their household *always* do their bit to save water increased with age (themselves 28% (16-34), 42% (35-60), 60% (65+) – their household 27% (16-34), 34% (35-60), 52% (65+)).

#### 4.4 Water saving behaviour – specific tasks

- 4.4.1 Respondents were asked whether, under normal circumstances, they conduct tasks in a specific way and whether or not this is to save water. Results for each activity are detailed in Table 4.7. In addition, Table 4.8 details whether respondents do it to save water or not.

**Table 4.7 Behaviour for specific tasks under normal circumstances (i.e. when a hosepipe ban is not in place)**

Behaviour	Always	Sometimes	Never
Wash dishes in a bowl/sink, rather than under a running tap (1996)	72%	21%	8%
Only fill the kettle up with the water you need (1992)	69%	23%	9%
Take a shower rather than a bath (1999)	63%	28%	9%
Turn off the tap when cleaning my teeth (2005)	56%	24%	20%
Wash your car with a bucket rather than a hosepipe (1997)	53%	29%	19%
Water the garden less (1995)	46%	42%	11%
Collect and use rain water for garden watering / car washing (1999)	39%	20%	41%
Re-use washing-up water rather than pour it down the plughole (2001)	23%	28%	49%

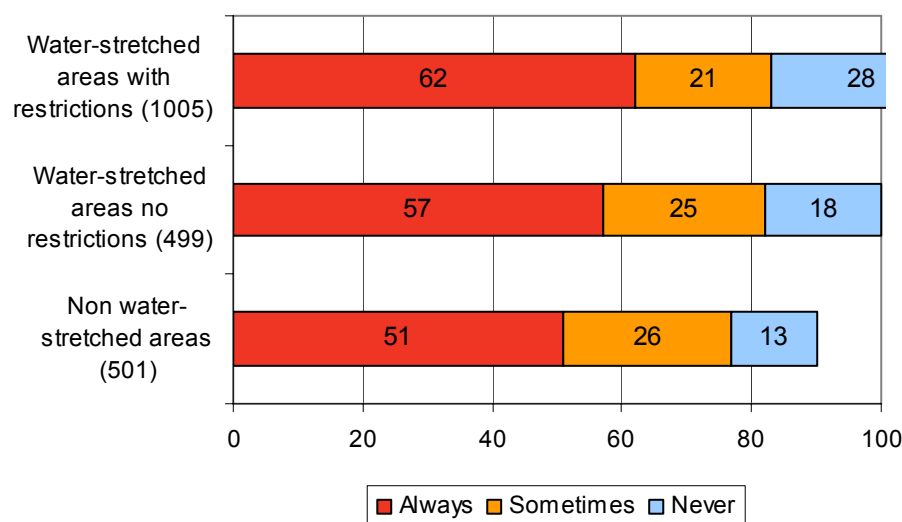
**Table 4.8 Is this to save water?**

To save water?	Percentage	
	Yes	No
Wash dishes in a bowl/sink, rather than under a running tap (1455)	81%	19%
Only fill the kettle up with the water you need (1612)	80%	20%
Take a shower rather than a bath (1442)	67%	33%
Turn off the tap when cleaning my teeth (1465)	87%	13%
Wash your car with a bucket rather than a hosepipe (1084)	83%	17%
Water the garden less (1306)	87%	13%
Collect and use rain water for garden watering / car washing (586)	94%	7%
Re-use washing-up water rather than pour it down the plughole (907)	94%	6%

### Turn off the tap when cleaning my teeth

- 4.4.2 As can be seen in Tables 4.7 and 4.8, a high percentage of respondents stated that they *always* or *sometimes* turn off the tap when cleaning their teeth and that this is in order to save water.
- 4.4.3 Respondents in non water-stretched areas were less likely to turn off the tap when brushing their teeth than those in the other areas. Results are shown in Figure 4.3.

**Figure 4.3 Turn off the tap when cleaning my teeth – by area**



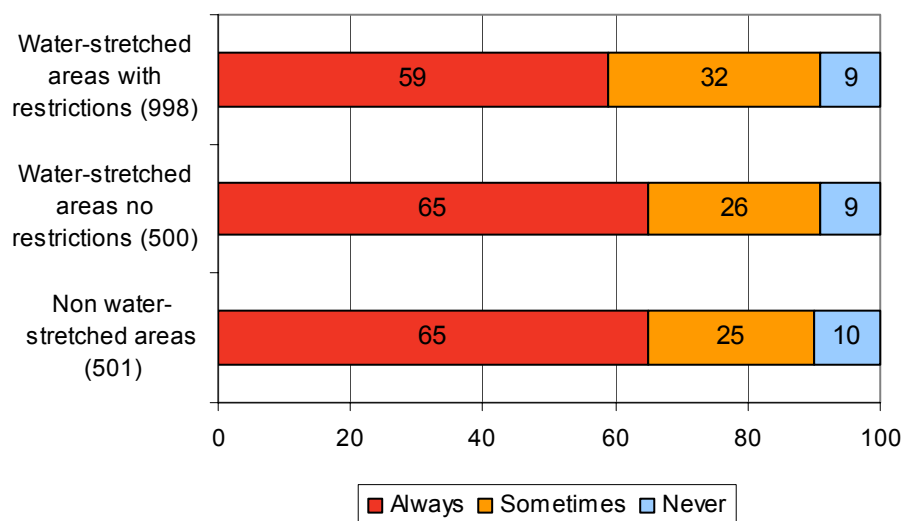
- 4.4.4 Respondents who are charged for water via a meter are more likely to *always* turn off the tap (66%) than unmetered respondents (53%).
- 4.4.5 The proportion of respondents who *always* turn off the tap when cleaning their teeth increases with age (16-34 - 51%, 35-60 - 57%, 61+ - 62%). In addition, respondents in the high SEG group were more likely to state that they *always* turn off the tap (64%) compared to the low group (54%).
- 4.4.6 Those respondents who *never* turn off the tap when cleaning their teeth are more likely to not be the bill-payer (17% of those who never turn off the tap are non bill-payers compared to 13% of the total sample being non bill-payers), be in the younger age group (37% of those who never turn off their tap are in the 16-34 year age group, compared to 32% of the total sample being aged 16-34) and in the low SEG (84% of low SEG never turn off the tap, compared to 78% of the total sample being low SEG).
- 4.4.7 For those respondents who never turn off the tap when cleaning their teeth, the most common reasons given for this behaviour were:

- habit (61%);
- that they believe it is unnecessary (11%); or
- that it is not convenient (11%).

### Take a shower rather than a bath

- 4.4.8 More than six in ten respondents (63%) *always* take a shower rather than a bath, with a further 27.5% *sometimes*. However, for a significant number (33%) this was not in order to save water. 28% of respondents have a power shower fitted in their homes.
- 4.4.9 Respondents in water-stretched areas with restrictions were more likely to only *sometimes* take a shower rather than a bath compared to other areas. This is shown in Figure 4.4.

**Figure 4.4 Take a shower rather than a bath – by water area**



- 4.4.10 Respondents who are charged for water via a meter are more likely to *always* take a shower rather than a bath (69%) compared to those without meters (61%).
- 4.4.11 Older respondents (aged 61+) were more likely to state that they *never* take a shower rather than a bath (15%) compared to those aged 16-34 years (9%) and 35-60 years (7%).
- 4.4.12 The most common reason respondents gave for *never* taking a shower rather than a bath were:

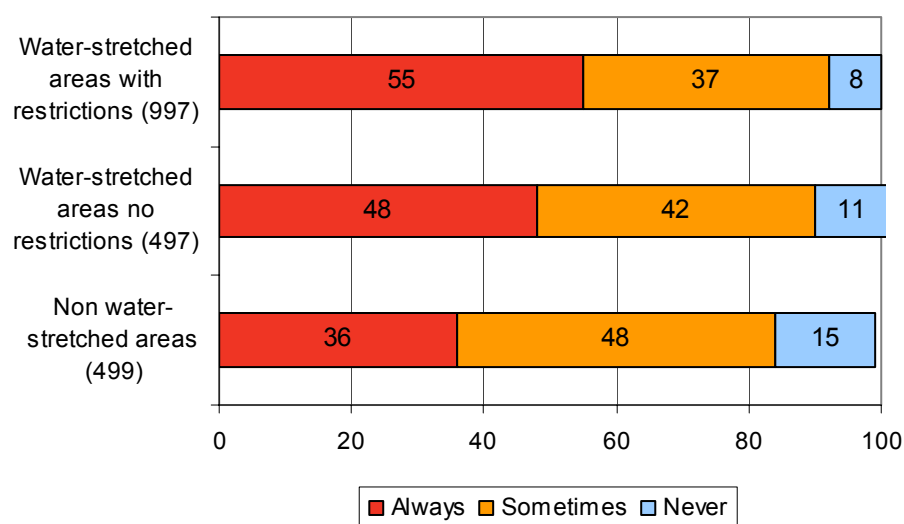
- habit (42%);
- prefer a bath (30%) or
- they do not want to have a shower (16%).

### Water the garden less

- 4.4.13 Table 4.7 shows that just under half of respondents (46%) *always* 'water the garden less' and a further 43% *sometimes*, with just under nine in ten (87%) doing so to save water.
- 4.4.14 As can be seen in Figure 4.5, a higher percentage of respondents in water-stretched areas with and without restrictions stated that they *always* water the garden less compared to

those in non water-stretched areas; in addition, fewer respondents in non water-stretched areas stated that it was to save water. This seems to demonstrate that the publicity around restrictions had some effect whilst metering did not - as although a larger percentage of metered respondents indicated that they *always* water the garden less (50%) compared to unmetered respondents (46%), this difference was not statistically significant.

**Figure 4.5 Water the garden less – by water area**

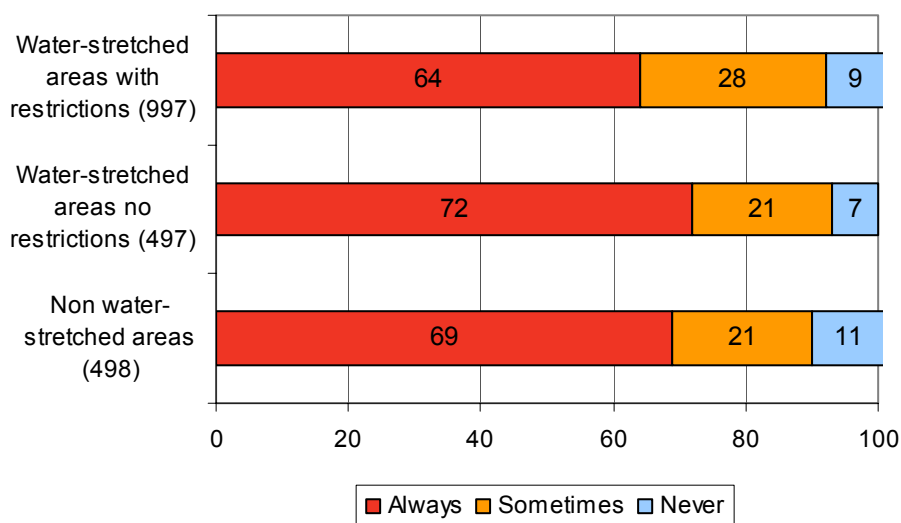


- 4.4.15 Younger respondents (16-34) were less likely to state that they *always* water the garden less (40%) compared to those aged 35-60 years (48%) and 61+ years (50%).
- 4.4.16 Respondents who indicated that they *never* water the garden less to save water are more likely to be non bill-payers (17% of those who never turn off their tap are non bill-payers, compared to 13% of the total sample being non bill-payers) and younger (37% of those who never turn off their tap are aged 16-34, compared to 32% of the total sample being aged 16-34).
- 4.4.17 The most common reason that respondents gave for *never* watering the garden less were:

- habit (39%);
- they do not believe it is necessary (38%); or
- they do not want to (12%).

#### Only fill the kettle up with the water you need

- 4.4.18 Just fewer than seven in ten respondents (69%) stated that they *always* only fill the kettle with the water they need and a further 23% *sometimes*. 80% of these people are doing so to save water.

**Figure 4.6 Only fill the kettle up with the water you need – water area**

4.4.19 Older respondents (aged 61+) are more likely to *always* only fill up the kettle with the water they need (78%) compared to those aged 35-60 (69%) and those aged 16-34 (61%). In addition, bill-payers were more likely to indicate that they *always* (70%) and less likely to indicate that they *never* (8%) only fill up the kettle with the water they need.

4.4.20 The respondents who indicated that they *never* only fill up the kettle with the water they need are less likely to be the bill-payer (76% of those who indicated that they *never* only fill up the kettle with the water they need are bill-payers compared to 87% of bill-payers in the total sample) and more likely to be younger (49% of those who indicated that they *never* only fill up the kettle with the water they need are in the 16-34 year age group compared to 32% of the total sample being aged 16-34).

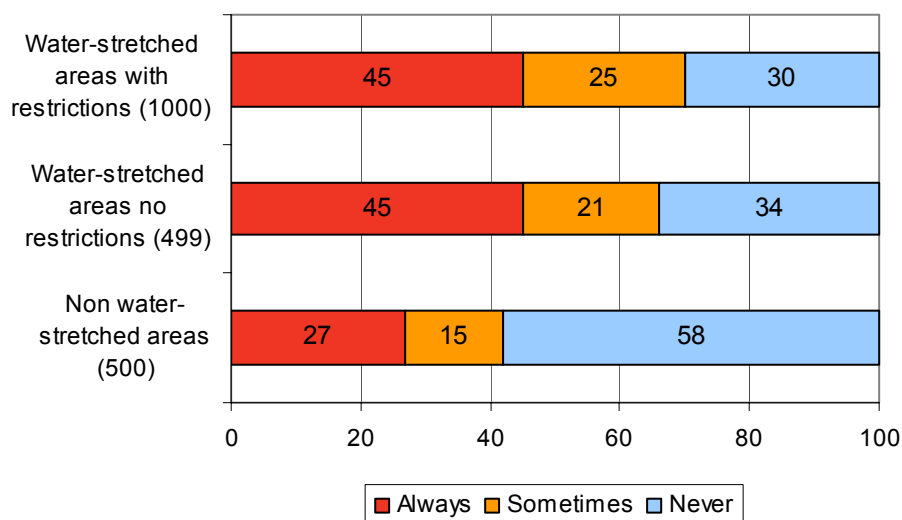
4.4.21 Respondents who stated that they *never* only fill up the kettle with the water they need stated that this was because:

- of habit (62%); or
- it is unnecessary (22%).

### Collect and use rainwater for garden watering/car washing

4.4.22 41% of respondents stated that they *never* collect and use rainwater. However just under four in ten (39%) *always* collect and use rainwater and a further 20% *sometimes*. Those who do collect and use rainwater say they are doing it to save water.

4.4.23 The proportion of respondents in non water-stretched areas that *never* collect and use rainwater was higher than in other areas. This is detailed in Figure 4.7.

**Figure 4.7 Collect and use rainwater – by water area**

4.4.24 Respondents who are charged for water via a meter are more likely to *always* collect and use rainwater (49%) than unmetered consumers (36%).

4.4.25 The proportion of respondents who *always* collect and use rainwater increases with age (16-34 24%, 35-60 42% and 61+ 54%). Also, respondents in rural areas are more likely to *always* collect and use rainwater (44%) than those in urban areas (34%).

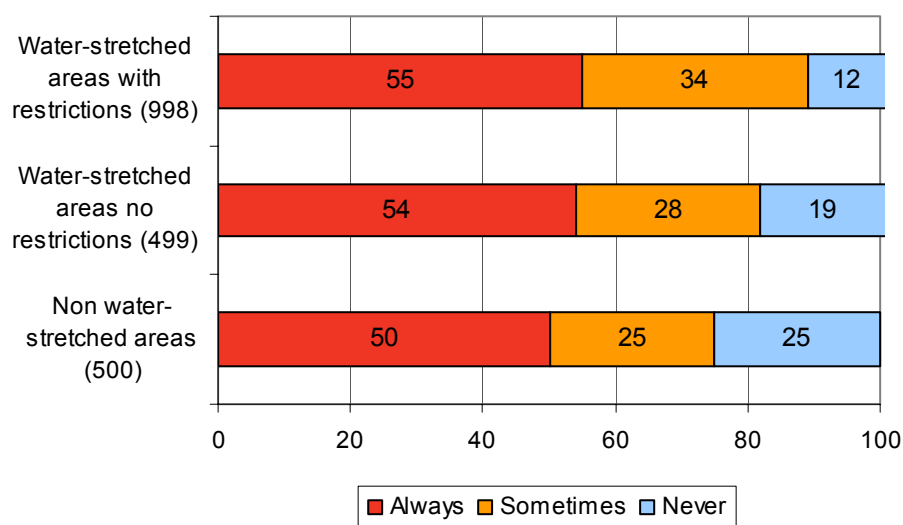
4.4.26 Those respondents who indicated that they *never* collect and use rainwater stated that this was mainly because:

- of practical reasons, lack of space etc. (37%);
- of habit (28%);
- it is unnecessary (13%); or
- it is not convenient/lack of time/cannot be bothered (12%).

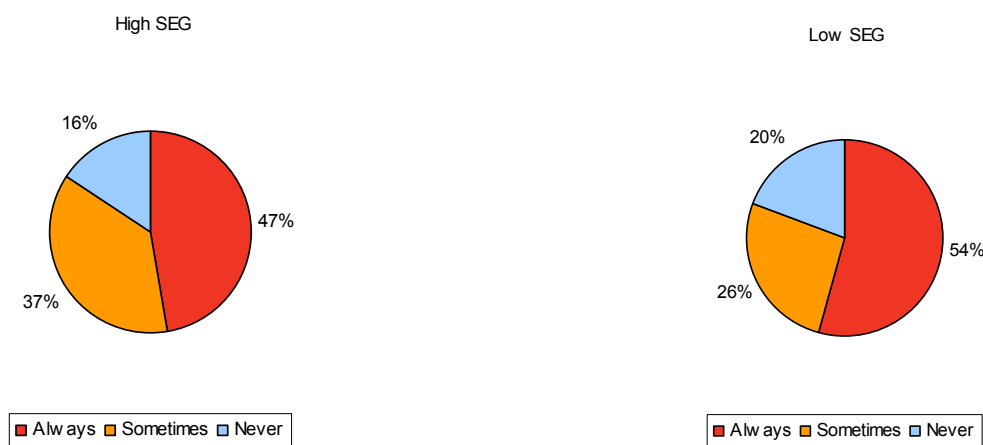
### **Wash your car with a bucket rather than a hosepipe**

4.4.27 Over half of respondents (53%) indicated that they *always* wash their car with a bucket. In addition, over eight in ten stated that this was in order to save water.

4.4.28 There was however a difference across the water category areas, with those respondents in non water-stretched areas less likely to *always* or *sometimes* wash their car with a bucket compared to those in water-stretched areas with and without restrictions. These results are shown in Figure 4.8.

**Figure 4.8 Wash you car with a bucket rather than a hosepipe – by water area**

4.4.29 Younger respondents are less likely to *always* wash their car with a bucket rather than a hose (46%) compared to those aged 35-60 (54%) and 61+ (59%). A higher percentage of respondents in the high SEG group are likely to only *sometimes* wash their car with a bucket compared to the low SEG group, this is shown in Figure 4.9.

**Figure 4.9 Wash your car using a bucket – by SEG**

4.4.30 Respondents who indicated that they *never* wash their car with a bucket were more likely to be younger (38% of respondents who never wash their car with a bucket are young compared with 32% of young respondents overall) and residing in rural areas (54% of

respondents who never wash their car with a bucket live in rural areas compared with 48% of respondents overall live in rural areas).

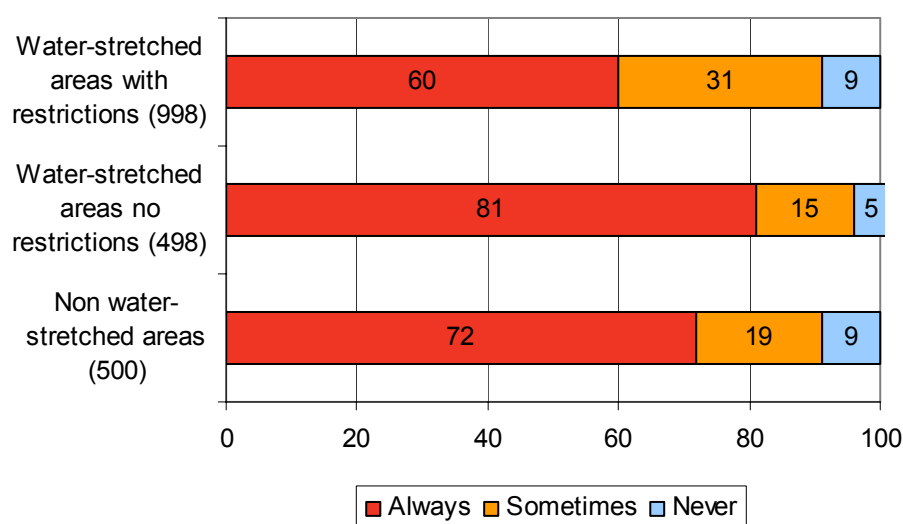
- 4.4.31 Respondents who indicated that they *never* wash their car with a bucket rather than a hose stated that this was mainly because:

- they use a car wash (44%); or
- convenience/to save time/cannot be bothered (24%).

#### Wash dishes in a bowl/sink, rather than under a running tap

- 4.4.32 The majority of respondents indicated that they wash dishes in a bowl/sink rather than under a running tap (72% *always*, 21% *sometimes*). With eight in ten of them doing it to save water (81%).
- 4.4.33 As can be seen in Figure 4.10, a lower proportion of respondents in water-stretched areas with restrictions always wash dishes in a bowl/sink compared to other water category areas and a higher proportion only *sometimes* wash dishes in a bowl/sink. However, there is a higher percentage of respondents in the high SEG group in the water-stretched areas with restrictions (see Appendix C), this difference could therefore be due to the higher use of dishwashers by the high SEG respondents and therefore the perception of less need to wash other dishes in a bowl/sink (see 4.4.36).

**Figure 4.10 Wash dishes in a bowl/sink, rather than under a running tap – by water area**



- 4.4.34 Younger respondents are less likely to *always* wash dishes in a bowl/sink rather than under a running tap (66%) compared to those aged 35-60 (71%) and 61+ (80%). Also, respondents in the high SEG group are less likely to *always* wash dishes in a bowl/sink (66%) compared to those in the low group (73%).

- 4.4.35 Those respondents who indicated that *they never wash dishes in a bowl/sink were more likely to be in the high SEG group* (28% of respondents were in the high SEG group compared to 22% of high SEG respondents in the total sample). However, a higher proportion of respondents in the SEG group have a dishwasher and therefore this may be due to the fact that they always use a dishwasher to wash their dishes. A higher proportion of younger respondents (16-34) were also more likely to *never* wash dishes in a bowl/sink than represented in the total sample (of those who indicated that they never wash dishes in a bowl/sink 40% were aged 16-34, this is compared with 32% of respondents aged 16-34 in the total sample).
- 4.4.36 Those respondents who indicated that they *never* wash dishes in a bowl/sink rather than under a running tap mainly gave the following reasons:

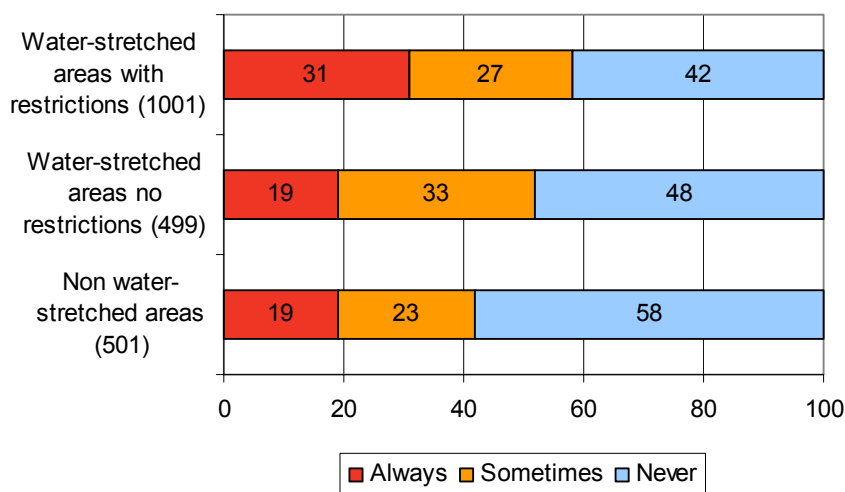
- they use a dishwasher (41%);
- habit (16%);
- it is not necessary (13%);
- do not want to (12%); or
- water is greasy/soapy (8%)

#### Re-use washing-up water rather than pour it down the plughole

- 4.4.37 Almost half of respondents do not re-use their washing-up water (49%)<sup>10</sup>. However, a significant percentage indicated they *always* (23%) or *sometimes* (28%) re-use their washing-up water rather than pour it down the plughole. The vast majority do it to save water.
- 4.4.38 Respondents in water-stretched areas with a ban are more likely to *always* re-use their washing-up water than those in other areas. This is detailed in Figure 4.11.

<sup>10</sup> Anecdotal feed-back in piloting suggested that uncertainty over detergents in the washing-up liquid was a barrier preventing some from re-using their washing-up water on the garden

**Figure 4.11 Re-use washing-up water rather than pour it down the plughole – by water area**



4.4.39 Respondents who are charged for water via a meter are more likely to *always* re-use their washing-up water (28%) than those in unmetered households (21%).

4.4.40 Younger respondents are less likely to *always* re-use their washing-up water (13%) compared to those aged 35-60 (24%) and 61+ (35%). Also, non bill-payers are less likely to *sometimes* re-use their washing-up water (21%) compared to bill-payers (29%) and more likely to *never* (57% compared to 48%).

4.4.41 Respondents who *never* re-use their washing-up water are more likely to be younger (57% of those 16-34 indicated that they *never* re-use their washing-up water).

4.4.42 Those respondents who indicated that they *never* re-use their washing-up water mainly gave the following reasons:

- habit (37%);
- water greasy/dirty/soapy/hot/not in a condition to re-use (25%);
- convenience/to save time/cannot be bothered (12%); or
- it is not necessary (12%).

## 4.5 Possible non-essential water use

4.5.1 Just over half of the sample (54%) indicated that they wash their car at home and, of these, 41% indicated that they use a hose.

4.5.2 Nearly nine in ten respondents (89%) have a garden, and nearly three-quarters (73%) water it/some of it. Half of respondents who water their garden or some of their garden use a hose under normal circumstances (50%).

4.5.3 A significant number of respondents indicated that they have hobbies that could be affected by water shortages, including:

- gardening (24%);
- walking (17%);
- fishing (7%);
- bird watching (4%);
- swimming (3%); and
- river pursuits (2%).



5



## 5 Behaviour and attitudes to water using appliances

### Summary of chapter

- Most respondents who have a dishwasher use it only when it is full. They do this mainly for energy and cost savings rather than water savings.
- Of those respondents who had purchased a water-using appliance in the last five years, the most common purchases included: a washing machine or dishwasher.
- The influences on choice of new water-using appliance were cost and energy efficiency. Appearance was also important for non-energy using appliances.
- For those respondents that were influenced by someone else's recommendation, the main influences were friends/family or salesperson.
- 40% of respondents indicated that they would be willing to accept a 10% drop in dishwasher performance in order to secure a 10% increase in water efficiency; and a further 39% would be willing to pay £40 extra for a 10% reduction in water volume. Respondents in water-stretched areas with restrictions (43%) and metered respondents (44%) were more likely to be willing to pay £40 extra for a 10% reduction in water volume than other respondents.
- The majority of respondents were positive about the effects that an appliance using less water would have, with 40% expecting it to have cheaper running costs and 35% that it would use less energy.

### 5.1 Introduction

- 5.1.1 This chapter focuses on the objective to establish consumer behaviour and attitudes in relation to water using appliances. It considers what influences the consumer when purchasing a new household appliance and how respondents would trade-off water efficiency, performance and price.

### 5.2 Use of a dishwasher

- 5.2.1 Just under half of those interviewed (45%) reported having a dishwasher, with the vast majority (86%) using it only when it was full.

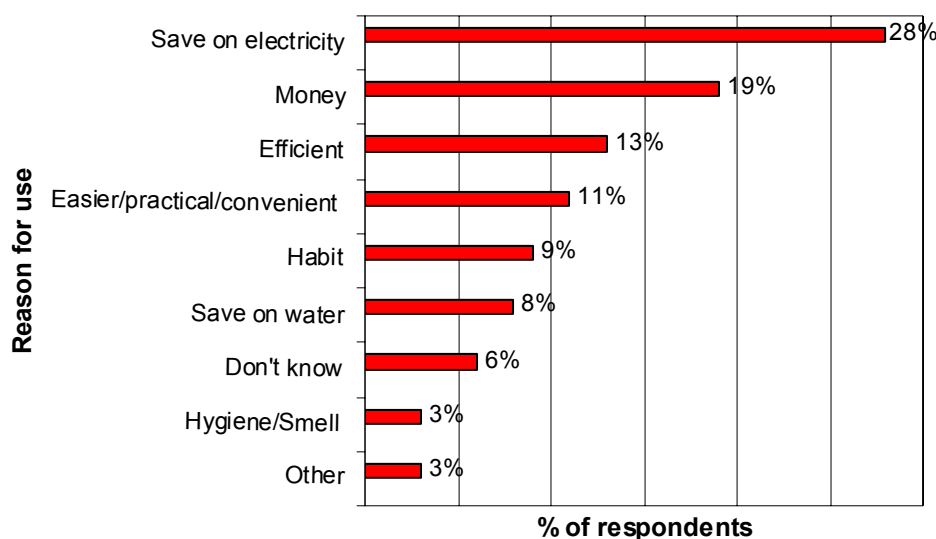
**Table 5.1 Access to a dishwasher**

Dishwasher	Percentage
Have a dishwasher	45%
Do not have a dishwasher	55%
(Base 1969)	

**Table 5.2 When do you use your dishwasher?**

Do you use your dishwasher...	Percentage
Only when it's full	86%
Once a day however full	6%
Whenever you feel like it	5%
Other	4%
(Base 889)	

5.2.2 Respondents were asked to state why they use their dishwasher in the way that they do (e.g. only when it's full). Figure 5.1 illustrates the findings.

**Figure 5.1 Reasons for respondents using a dishwasher**

(Base 815)

5.2.3 The main reasons given for respondents using their dishwashers in the way that they do were because it saves electricity (28%), saves money (19%) and is more efficient (13%).

5.2.4 There are some notable differences by water-stretched area. Those respondents living in water-stretched areas with restrictions are more likely to use the dishwasher in the way that they do because it saves water (15%) compared to respondents living in other areas (4%). The full findings are presented in Table 5.3.

**Table 5.3 Reasons for respondents using a dishwasher by water-stretched area**

Reason for using the dishwasher	Percentage		
	Water-stretched with restrictions	Water-stretched no restrictions	Non water-stretched
Save on electricity	21%	32%	32%
Money	18%	18%	20%
Efficient	15%	16%	7%
Easier/practical/convenient	10%	11%	12%
Habit	9%	9%	11%
Save on water	15%	4%	4%
Don't know	7%	5%	6%
Hygiene/smell	3%	20%	4%
Other	2%	4%	3%
(Base 815)			

- 5.2.5 Those respondents aged between 35 and 60 were most likely to have a dishwasher (54%) compared with (31%) of those aged 61 and over and (41%) of those aged between 16 and 34. Within all age groups the majority of respondents use the dishwasher only when it is full.
- 5.2.6 Most respondents (71%) in the high SEG have a dishwasher compared with 37% of those in the low SEG. There is no difference between their attitudes towards its use.

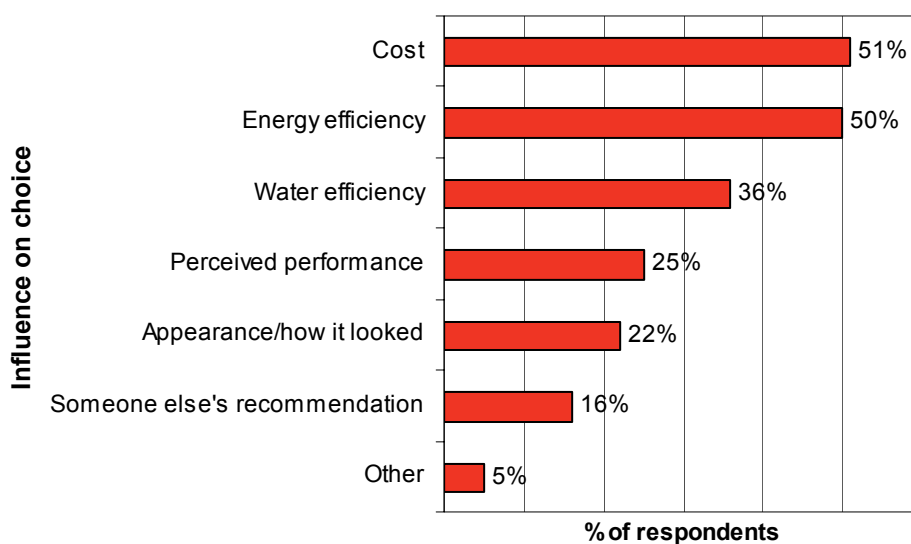
### 5.3 New appliances

- 5.3.1 Respondents were asked to think back to their most recent purchase of a water-using appliance for either their kitchen or bathroom. Over two-fifths of respondents (43%) stated that they had not bought a water using appliance in the last five years.
- 5.3.2 Of those respondents who had purchased a water using appliance, the most common purchases included: a washing machine, dishwasher or shower. A full list of the appliances most recently purchased by respondents is illustrated in Table 5.4.
- 5.3.3 Those respondents aged between 35 and 60 (63%) were most likely to have purchased a new water-using appliance in the last five years. Whilst those aged 61 and over were the least likely age group to have purchased a new appliance (45%).
- 5.3.4 Those respondents in the high SEG were more likely to have purchased a new water using appliance in the last five years (63%) compared with (55%) of those respondents in the low SEG.

**Table 5.4 Water-using appliances purchased in the last five years**

Water-using appliance	Percentage
Washing machine	61%
Dishwasher	26%
Shower	8%
Toilet	2%
Bathroom suite	2%
Water jug	1%
Taps	<1%
Sink	<1%
(Base 1106)	

5.3.5 Respondents who had purchased a water-using appliance were asked to state what influenced their purchase decision. Overall, the main influences were cost (51%) and energy efficiency (50%). Over a third of respondents (36%) stated that water efficiency was an influence on deciding which appliance to purchase.

**Figure 5.2 Influence on purchase decision (multiple response)**

(Base 1106)

5.3.6 When we look at the results for energy-using appliances and non energy using appliances, it can be seen that energy efficiency is most often selected as an influence on purchase decisions for energy-using appliances, and appearance for non energy-using appliances. Results are shown in Tables 5.5 and 5.6.

**Table 5.5 Influence on purchase decision – energy-using appliances**

Reason for decision	Percentage
Energy efficiency	55%
Cost	54%
Water efficiency	38%
Performance	26%
Appearance	20%
Someone else's recommendation	16%
Other	5%
(Base 152)	

**Table 5.6 Influence on purchase decision – non energy-using appliances**

Reason for decision	Percentage
Appearance	39%
Cost	36%
Water efficiency	26%
Perceived performance	18%
Someone else's recommendation	17%
Other	10%
(Base 152)	

- 5.3.7 When one includes all types of appliances purchased, less than a fifth of respondents (16%) stated their purchase was influenced by someone else's recommendation. For these respondents, the main influence was friends/family (41%) and salesperson (33%). A smaller number of respondents mentioned that they were influenced by a plumber/fitter (15%). A few respondents (8%) also mentioned others including their landlord and consumer organisations/magazines.

**Table 5.7 Influence on purchase decision by water-stretched area**

Influence on purchase decision	Percentage		
	Water-stretched with restrictions	Water-stretched no restrictions	Non water-stretched
Performance	28%	23%	24%
Recommendation	17%	16%	16%
Cost	55%	57%	43%
Energy Efficiency	60%	52%	39%
Water efficiency	41%	41%	26%
Appearance	22%	24%	20%
Other	4%	3%	9%
(Base 1106)			

- 5.3.8 Cost and energy efficiency are the two main influences for respondents in all water category areas. However, it is interesting to note that those respondents living in water-stretched areas (41% – with and without restrictions) are far more likely to take water efficiency of an appliance into consideration than those in non water-stretched areas (26%).
- 5.3.9 Those respondents aged between 16 and 34 were most influenced by cost when deciding on a purchase (56%). This was also the case for those aged 61 and over (45%). Those respondents aged between 35 and 60 were most likely to be influenced by the energy efficiency of the appliance (54%) closely followed by cost (50%).
- 5.3.10 Those respondents classed in the high SEG were most likely to be influenced by the energy efficiency of the appliance (56%) followed by cost (48%) and water efficiency (42%). Whilst those respondents classed in the low SEG were most likely to be influenced by cost (52%) and then energy efficiency (48%). Far less respondents in this group were influenced by the water efficiency of the appliance (34%).
- 5.3.11 Those respondents who have a water meter fitted are slightly more likely to consider the water efficiency of the appliance (40%) when purchasing a new one than those without a water meter (35%).

#### 5.4 Willingness to Pay for Water-Efficient Appliances

- 5.4.1 Respondents were presented with the following scenario and asked to trade-off cost, water efficiency and performance:

*"Imagine that you were going to buy a new dishwasher and, after considering a range of appliances, you whittled the decision down to three, which option would you choose:*

*Option A: water volume and performance as standard, cost £300*

*Option B: 10% reduction in water volume, performance as standard, cost £340*

*Option C: 10% reduction in both water volume and performance, cost £300"*

- 5.4.2 Respondents' preferences were as reported in Table 5.7. These results indicate that 77% of respondents would prefer to pay more, or accept a small deterioration in performance in order to secure a more water-efficient appliance.

**Table 5.8 Consumers' trade-off between price, performance and water efficiency**

	Percentage %
Option A:	24%
Option B	37%
Option C	40%
(Base 1965)	

#### Respondents selecting Option A

- 5.4.3 Just under a quarter of respondents (24%) stated that they would prefer to pay £300 for a new dishwasher as long as the water volume and performance remained as standard. These respondents were then presented with a fourth option:

*Option D: 10% reduction in water volume, performance as standard, cost £320.*

- 5.4.4 Of those respondents who initially preferred Option A, 30% would be willing to have a 10% reduction in water volume for an additional £20. The majority of respondents (70%) would prefer to maintain the same water volume and performance for £300.

#### Respondents selecting Option B

- 5.4.5 Over a third of respondents stated that they would be happy to receive a 10% reduction in water volume at a cost of £340 if the performance remained as standard. Performance is the main influence for this group rather than cost. These respondents were then presented with a fourth option:

*Option E: 20% reduction in water volume, 5% reduction in performance, cost £340.*

- 5.4.6 Over half of these respondents (54%) would be willing to see a further reduction in water volume and a 5% reduction in performance at a cost of £340 for the dishwasher.

#### Respondents selecting Option C

- 5.4.7 Over a third of respondents stated that they would choose a 10% reduction in both water volume and performance if the cost remained at £300 (40%) suggesting that for this group

cost is the driving factor when deciding on a new appliance. These respondents were then presented with a fourth option.

Option F: 20% reduction in water volume, 5% reduction in performance, cost £320.

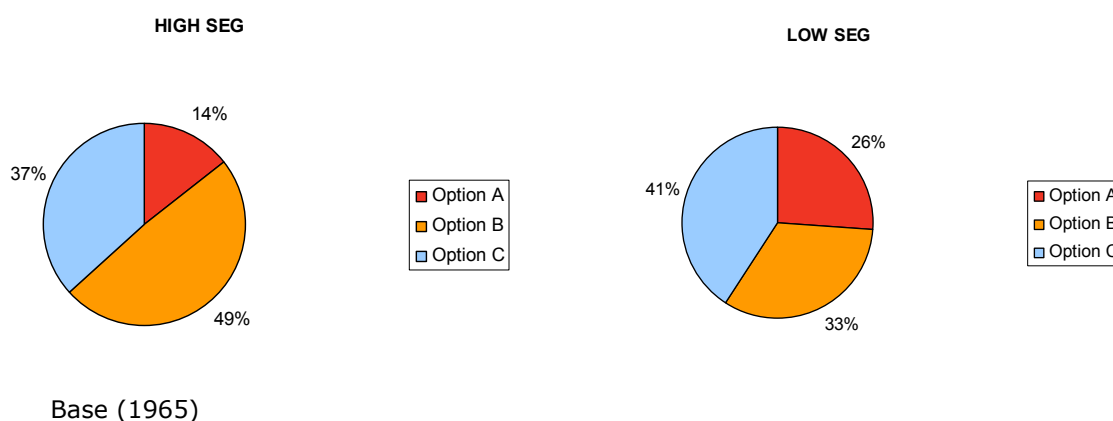
- 5.4.8 Over half of these respondents (62%) would be willing to see a 5% reduction in performance and pay an extra £20 in cost for a water reduction of 20%.
- 5.4.9 Overall, 37% of respondents stated that they were prepared to pay £40 extra for a 10% reduction in water volume; and 40% would be willing to accept a 10% drop in performance in order to secure a 10% increase in water efficiency.
- 5.4.10 There were some differences between respondents in the three water-stretched areas. Those respondents in water-stretched areas with restrictions were most likely to choose Option B suggesting that saving water is a priority for this group of respondents. However, it should be noted that there is a slightly higher proportion of respondents in the high SEG category within the water-stretched areas with restrictions and this could be influencing this result. The full results are in Table 5.9.

**Table 5.9 Preferred option by water-stretched area**

Option	Percentage		
	Water-stretched with restrictions	Water-stretched no restrictions	Non water- stretched
Option A:	22%	25%	25%
Option B	43%	34%	34%
Option C	36%	42%	41%
(Base 1965)			

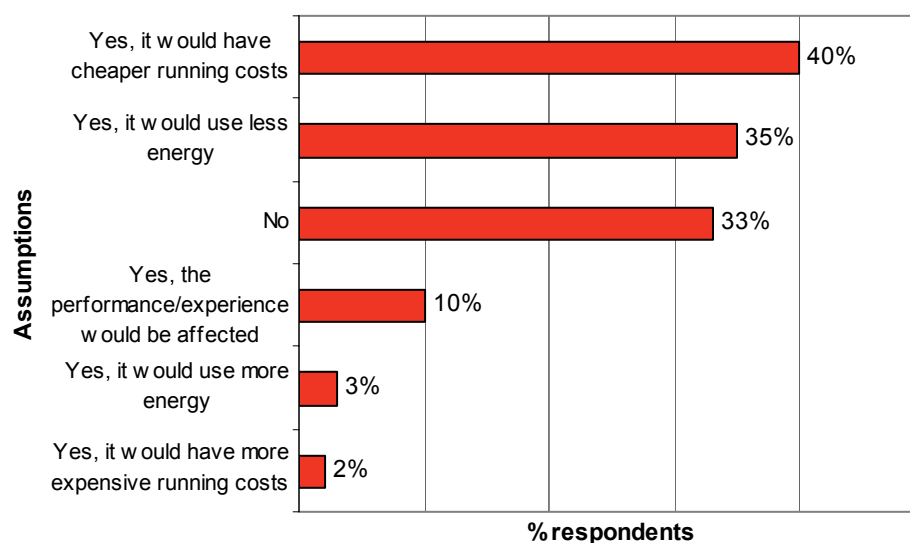
- 5.4.11 Those respondents in water-stretched areas with no restrictions (42%) and non water-stretched areas (41%) were most likely to accept a 10% reduction in water volume and performance but maintain the cost at £300.

**Figure 5.3 Options selected by SEG**



- 5.4.12 Almost half of respondents in the high SEG (49%) stated that they were prepared to pay £40 extra for a 10% reduction in water volume compared with a third of respondents (33%) in the low SEG. Over two-fifths (41%) of respondents in the low SEG would be willing to see a 10% reduction in both water volume and performance if the cost remained at £300.
- 5.4.13 Those respondents on a water meter (44%) were also far more willing to pay £40 extra in order to see a reduction in water use in the appliance. This is compared with 34% of those who are not on a water meter.
- 5.4.14 Respondents were asked if they would make any assumptions about an appliance if it used less water. Figure 5.4 presents the findings.

**Figure 5.4 Assumptions made if an appliance uses less water**



(Base 2006)

- 5.4.15 The majority of respondents were positive about the effects that an appliance using less water would have, for example, 40% felt that it would mean cheaper running costs and 35% linked it with using less energy. So, we might assume many of the respondents who were willing to pay £40 for a water-efficient appliance, will have expected to make financial savings every time the appliance was used.
- 5.4.16 Almost a third of respondents (33%) stated that if an appliance used less water they would make no further assumptions about it. Very few respondents felt that they would see a rise in running costs (2%) or rise in energy consumption (3%) if the appliance used less water. Reassuringly, only a small percentage (10%) would expect the appliance's performance to be affected.
- 5.4.17 Those respondents on a water meter were more likely to assume that an appliance using less water would have cheaper running costs (49%) compared with those not on a water meter (37%). This assumption was also more likely to be made by the bill-payer (41%) compared with the non bill-payer (33%).



6



## 6 Awareness of volume of water used

### Summary of chapter

- Awareness of the volume of water used in various household activities was generally good with the exception of toilet flushing (volume per flush is overestimated by approximately 50%) and dishwasher use (overestimated by a factor of between two and three dependent upon machine age).
- Respondents felt that, of the tasks listed, using a hosepipe to wash the car or watering the garden for 15 minutes using a sprinkler would use the most water. Washing the car using a bucket and sponge is thought to use 19% of the water used to wash a car with a hosepipe.
- On average, respondents estimate that having a shower uses 45% less water than taking a bath. They also believe that washing the dishes using a washing-up bowl uses about the same amount of water as flushing the toilet.
- Washing machines and dishwashers are thought to use similar amounts of water.

### 6.1 Introduction

- 6.1.1 The chapter presents consumers' awareness of the volume of water used around the home for individual activities and provides commentary on the accuracy of their estimates.

### 6.2 Estimates of water volume used

- 6.2.1 Respondents were shown a litre bottle of water in order to help them estimate the number of litres that a variety of household activities uses. Table 6.1 presents the findings. (Note differences in base sample size due to not all respondents being able to complete the question).

**Table 6.1 Respondents estimates of water use**

Household activity	Number of litres	
	Mean	Estimate of actual usage
Using a hosepipe to wash the car or water the garden for 15 minutes (Base 1441)	94.84	100 – 250 <sub>4</sub>
Having a bath (Base 1560)	89.31	54.4 <sub>1</sub>
Having the sprinkler on for 15 minutes (Base 1401)	79.98	100 – 250 <sub>4</sub>
Washing clothes in the machine (Base 1482)	48.65	45.7 <sub>1</sub>
Using a dishwasher (Base 1321)	45.99	14.9 <sub>1</sub>
Having a shower (Base 1585)	40.13	38.5 <sub>1</sub>
Washing a load of dishes by hand using running water (Base 1497)	27.58	15 – 30 <sub>2</sub>
Washing the car using a bucket and sponge (Base 1597)	18.23	30 – 50 <sub>5</sub>
Flushing the toilet (Base 1639)	12.63	7.9 <sub>1</sub>
Washing a load of dishes using a washing-up bowl (Base 1621)	11.62	10 – 15 <sub>3</sub>

<sup>1</sup> MTP SP06 = Sustainable Products 2006: Policy Analysis and Projections. Market Transformation Programme, 2006. Available from [www.mtprog.com](http://www.mtprog.com)

<sup>2</sup> Assumes hot and/or cold water taps running at 5 – 10 litres per minute for up to 6 minutes

<sup>3</sup> Assumes 2 or 3 fills of washing-up bowl (4 litres each time) plus water run to waste whilst running hot tap

<sup>4</sup> Dependent on flow rate of tap and local supply pressure. Range given is indicative of range of flow rates from external taps

<sup>5</sup> Assumes 3 to 5 fills of 10-litre bucket to wash car

- 6.2.2 It should be noted that there was a wide range of estimates for all activities/appliances.
- 6.2.3 The findings show that, on average, respondents believe that having a shower uses 45% less water than taking bath. Respondents also believe that washing the dishes using a washing-up bowl uses about the same amount of water as flushing the toilet.
- 6.2.4 Washing machines and dishwashers are thought to use similar amounts of water (48.65 and 45.99 litres respectively). Whereas washing-up dishes using a washing-up bowl is felt to use less than half the amount of water that washing-up dishes using running water does – it is likely that respondents have assumed a much smaller amount of washing-up is required when washing under the tap, than when washing in a bowl.

- 6.2.5 Respondents felt that using a hosepipe to wash the car or watering the garden for 15 minutes would use the most water (94.84 litres). Washing the car using a bucket and sponge is thought to use 19% of the water used to wash the car by hosepipe.
- 6.2.6 Awareness of volume of water used in various household activities such as washing-up was generally good with the exception of toilet flushing (volume per flush is overestimated by approximately 50%) and dishwasher use (overestimated by a factor of between two and three, dependent upon machine age). This poor estimate of toilet flush volumes and the lack of awareness of Cistern Displacement Devices, e.g. Save-a-flush, despite water company leafleting, suggests that consumers have not grasped the contribution that cistern displacement devices can make to water conservation and goes some way to explaining the low uptake of cistern displacement devices in the homes sampled (Table 7.4).
- 6.2.7 There are some differences in the estimates of water use by respondents in different water category areas. Those respondents living in a water-stretched area with restrictions estimated that having a sprinkler on for 15 minutes used over double the amount of water estimated by those living in non water-stretched areas. This is likely to be due to the restrictions placed on using hosepipes and sprinklers in these areas and the fact that respondents are therefore far more conscious of the amount of water they will be using. A full list of the results is presented in Tables 6.2.

**Table 6.2 Respondents estimates of water use by water-stretched area**

Household activity	Mean values in litres		
	Water-stretched with restrictions	Water-stretched without restrictions	Non water- stretched areas
Using a hosepipe to wash the car or water the garden for 15 minutes (Base 1441)	114.47	81.50	91.07
Having a bath (Base 1560)	91.70	88.19	88.28
Having the sprinkler on for 15 minutes (Base 1401)	113.92	71.65	56.01
Washing clothes in the machine (Base 1482)	47.00	44.71	54.77
Using a dishwasher (Base 1321)	48.81	41.64	48.30
Having a shower (Base 1585)	44.73	37.11	39.19
Washing a load of dishes by hand using running water (Base 1497)	32.65	22.87	28.24
Washing the car using a bucket and sponge (Base 1597)	18.79	14.15	22.47
Flushing the toilet (Base 1639)	15.86	11.94	10.43
Washing a load of dishes using a washing-up bowl (Base 1621)	15.64	8.40	11.52

- 6.2.8 For most activities, metered respondents were more likely to estimate lower levels of water use than unmetered respondents. However, this was not the case for washing clothes in the machine, using a dishwasher, having the sprinkler on for 15 minutes and using a hosepipe to wash the car or water the garden for 15 minutes. A full list of results is presented in Table 6.3.

**Table 6.3 Respondents estimates of water use**

Household activity	Mean values in litres	
	Metered	Unmetered
Using a hosepipe to wash the car or water the garden for 15 minutes	102.5	93.23
Having a bath	86.49	90.76
Having the sprinkler on for 15 minutes	86.69	77.98
Washing clothes in the machine	51.95	48.27
Using a dishwasher	48.35	45.77
Having a shower	37.05	40.96
Washing a load of dishes by hand using running water	24.83	28.66
Washing the car using a bucket and sponge	13.92	19.87
Flushing the toilet	11.79	12.92
Washing a load of dishes using a washing-up bowl	9.03	12.57
(Base)	(667)	(1257)

- 6.2.9 Those respondents who were not responsible for paying the water bill consistently estimated a higher level of use of water across all activities.







## 7 Use, and potential for use, of water-efficient devices

### Summary of chapter

- There was considerable variation in the existing uptake of water-efficient devices, from 10% having a cistern displacement device to 86% of respondents reporting to have a washing-up bowl.
- The most common barrier to the adoption of water-efficient showerheads, spray taps, dual flush/low flush toilets, and cistern displacement devices is a lack of knowledge. Cost is a barrier for the uptake of water-efficient washing machines and dishwashers; whilst washing-up bowls, water butts and watering can are not considered to be necessary by those without one.
- Respondents show a high level of willingness to use greywater recycled from their own baths, showers and washbasins if it was filtered and disinfected.
- Less than one in six homes reported having a retro-fitted WC flushing device. However, two-thirds of respondents indicated that they would be willing to volunteer to have a retro-fitted device in their home fitted free of charge. Barriers to their uptake included perceived interruptions of privacy and dislike of strangers in the home. Those willing to try retro-fitted devices would choose to keep the device if performance was deemed acceptable, with half being willing to pay to keep it and just under half willing to keep it at no cost.
- Of those respondents who indicated that they would be willing to try a retro-fitted device, the highest proportion would prefer water company staff or an independent plumber to fit the device.
- There was a positive response to the development of a new toilet where people would have to put down the toilet lid before flushing the toilet.

### 7.1 Introduction

- 7.1.1 This chapter reports on findings regarding the use of, and barriers to the use of, water-efficient devices in and around the home. It also highlights the percentage and type of respondents willing to consider, and to pay for, the retro-fitting of devices; and who they would prefer to fit the devices.

### 7.2 Current use of water-efficient devices

- 7.2.1 Respondents were asked to indicate, from a list, those water-efficient devices they have in their household. As can be seen in Table 7.1, there was considerable variation in existing take-up of different appliances, from 86% of respondents having a washing-up bowl to 10% having a hippo/hog-bag/save-a-flush.
- 7.2.2 It is likely that some respondents will be mistaken as to whether they have, or not, a water-efficient showerhead, as the decision for most respondents will be purely subjective (i.e. does it spray more or less water than a typical one?). Furthermore, the existence of a

water-saving item, in itself, does not mean that it has been purchased, or is currently used, as a water-saving device. For example, a water butt may have been left by a previous owner and is now never used; a respondent may have a watering can but waters their garden with a hose nevertheless. Therefore, ownership of water-saving devices can only act as a pointer to deliberate, pro-active water-efficient use.

**Table 7.1 Water-efficient devices in and around the home**

Device	Response		
	Yes	No	Don't Know
Washing-up bowl (Base 1997)	86%	13%	<1%
Watering can (Base 2000)	82%	17%	1%
Water-efficient washing machine (Base 1995)	67%	20%	12%
Water butt (Base 1999)	44%	54%	2%
Dual flush/low flush toilet (Base 2005)	36%	58%	6%
Water-efficient dishwasher (Base 1921)	31%	56%	13%
Water-efficient showerhead (Base 1991)	29%	55%	16%
Spray taps (Base 2004)	20%	76%	5%
Hippo/Hog-bag/Save-a-flush (Base 1995)	10%	79%	10%

### Washing-up bowl

- 7.2.3 Respondents in the older age group were more likely to state that they have a washing-up bowl (92%) than those aged 16-34 (86%) and 35-60 (84%). Respondents in the low SEG group were also more likely to state that they have a washing-up bowl (88% low SEG, 80% high SEG).

### Watering can

- 7.2.4 Respondents in non water-stretched areas were less likely to indicate that they have a watering can in their household (76%) compared to those in water-stretched areas with (84%) and without (87%) restrictions.
- 7.2.5 Respondents who are charged for water via a meter were more likely to state that they have a watering can in their household (88%) compared to unmetered respondents (82%).
- 7.2.6 Younger respondents were less likely to report having a watering can (71%) compared to those aged 35-60 (87%) and 61+ (89%). Respondents in the high SEG group (87%) and rural areas (89%) were more likely to report having a watering can compared the low SEG group (81%) and those in urban areas (76%).

### Water-efficient washing machine

- 7.2.7 A higher percentage of respondents in water-stretched areas without restrictions indicated that they have a water-efficient washing machine (76%) compared to those in areas with restrictions (65%) and non water-stretched areas (60%).
- 7.2.8 Respondents who are charged for water via a meter were more likely to state that they have a water-efficient washing machine in their household (74%) compared to unmetered respondents (66%).
- 7.2.9 Respondents aged 35-60 were more likely to state that they have a water-efficient washing machine (73%) than those aged 16-34 (62%) and 61+ (62%). Non bill-payers were less likely to know whether or not they have a water-efficient washing machine (don't know 24%) than bill-payers (don't know 11%).

### Water butt

- 7.2.10 Respondents in non water-stretched areas were less likely to indicate that they have a water butt in their household (29%) compared to those in water-stretched areas with (51%) and without (52%) restrictions.
- 7.2.11 Respondents who are charged for water via a meter were more likely to state that they have a water butt in their household (55%) compared to unmetered respondents (40%).
- 7.2.12 Respondents in rural areas were more likely to report that they have a water butt (55%) than those in urban areas (34%). Older respondents were also more likely to report having a water butt (53%) compared to those aged 16-34 (31%) and 35-60 (49%).

### Dual flush/low flush toilet

- 7.2.13 Respondents in non water-stretched areas were less likely to indicate that they have a dual flush/low flush toilet in their household (30%) compared to water-stretched areas with (40%) and without (38%) restrictions.
- 7.2.14 Respondents in the middle age group (35-60) were more likely to state that they have a dual flush/low flush toilet in their household (42%) compared to those aged 16-34 (29%) and 61+ (31%). Respondents in the high SEG group were more likely to state that they have a dual flush/low flush toilet in their household (44%) compared to those in the low SEG group (33%). Non bill-payers were less likely to know whether or not they have a dual flush/low flush toilet (don't know 17%) compared to bill-payers (don't know 5%).

### Water-efficient dishwasher

- 7.2.15 Respondents in water-stretched areas with restrictions were more likely to state that they have a water-efficient dishwasher in their household (38%), compared to areas without restrictions (32%) and non water-stretched areas (25%).

- 7.2.16 Respondents who are charged for water via a meter were more likely to state that they have a water-efficient dishwasher in their household (42%) compared to unmetered respondents (27%).
- 7.2.17 Respondents aged 35-60 were more likely to state that they have a water-efficient dishwasher (38%) than those aged 16-34 (27%) and 61+ (22%).
- 7.2.18 Respondents in the high SEG group were more likely to state that they have a water-efficient dishwasher in their household (51%) than those in the low SEG group (26%). However this could be because they are more likely to own a dishwasher. Non bill-payers were less likely to know whether or not they have a water-efficient dishwasher (24%) compared to bill-payers (11%).

### Water-efficient showerhead

- 7.2.19 Respondents in water-stretched areas with restrictions were more likely to state that they have a water-efficient showerhead (35%) compared to those in water-stretched areas without restrictions (24%) and non water-stretched areas (29%).
- 7.2.20 Metered respondents were more likely to indicate that they have a water-efficient showerhead (35%) compared to unmetered respondents (28%). Also, respondents in the high SEG group were more likely to have a water-efficient showerhead (34%) compared to the low group (28%). Non bill-payers were less likely to know whether or not they have a water-efficient showerhead (don't know 15%) compared to bill-payers (don't know 22%).

### Spray taps<sup>11</sup>

- 7.2.21 Respondents in water-stretched areas with restrictions were more likely to indicate that they have spray taps in their household (26%) compared to respondents in water-stretched areas without restrictions (16%) and non water-stretched areas (19%).
- 7.2.22 Respondents who are charged for water via a meter were more likely to state that they have spray taps in their household (26%) compared to unmetered respondents (18%). Respondents in the middle age group (35-60) were more likely to indicate that they have spray taps in their household (22%) compared to respondents aged 16-34 (19%) and 61+ (16%). Non bill-payers were less likely to know whether or not they have spray taps in their home (12%) compared to bill-payers (3%).

### Hippo/Hog-bag/Save-a-flush

- 7.2.23 Although a slightly higher percentage of respondents in water-stretched areas with a ban indicated that they have a hippo/hog-bag/save-a-flush (water-stretched with restrictions - 13%, water-stretched no restrictions - 10%, non water-stretched - 9%), a higher

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<sup>11</sup> A spray tap sprays water much like a miniature shower, thus reducing water flow.

percentage was also unsure whether or not they had a cistern displacement device (13% don't know).

- 7.2.24 Respondents who are charged for water via a meter were more likely to state that they have a cistern replacement device (15%) compared to unmetered respondents (9%).
- 7.2.25 Respondents in the young group (16-34) were less likely to know whether or not they have a cistern displacement device in their household (don't know 16%) compared to the 35-60 year olds (don't know 8%) and 61+ (don't know 8%). Similarly, non bill-payers were less likely to know (don't know 22%) than bill-payers (don't know 9%).

### 7.3 Barriers to the uptake of water-efficient devices

- 7.3.1 If respondents had indicated that they did not have a specified water-efficient device in their household, they were asked why not. Table 7.2 summarises responses. (Note: rows do not add up to 100% as excludes *other* responses).

**Table 7.2 Why do you not have a water-efficient device?**

Device	Response				
	No need for them	Don't know about them	Appearance /performance	Cost of purchase	Not applicable
Washing-up bowl (Base 232)	46%	7%	17%	2%	18%
Watering can (Base 275)	51%	5%	2%	1%	33%
Water-efficient washing machine (Base 397)	12%	31%	4%	42%	5%
Water butt (Base 931)	36%	13%	8%	7%	20%
Dual flush/low flush toilet (Base 1124)	14%	49%	3%	24%	4%
Water-efficient dishwasher (Base 977)	23%	11%	2%	25%	33%
Water-efficient showerhead (Base 1034)	12%	57%	4%	13%	10%
Spray taps (Base 1437)	15%	56%	6%	15%	3%
Hippo/Hog-bag/Save-a-flush (Base 1516)	16%	62%	5%	7%	6%

- 7.3.2 The most common barrier to adoption of water-efficient showerheads, spray taps, dual flush/low flush toilets, and cistern displacement devices is a lack of knowledge. Cost is a barrier for water-efficient washing machines and dishwashers; whilst washing-up bowls,

water butts and watering cans are generally not considered necessary by those people without them.

- 7.3.3 In general, respondents in water-stretched areas with and without restrictions and bill-payers were slightly less likely to indicate lack of information as a barrier to the adoption of the water-efficient devices.
- 7.3.4 There was little difference in barriers to take-up between metered and unmetered consumers for most devices, with the exception of water-efficient shower head (metered respondents more likely to give *don't know about them* as a barrier); spray taps (metered respondents more likely to give *no need for them* as a barrier); dual flush/low flush toilet (metered respondents more likely to give *no need for them* as a barrier); and water-efficient dishwasher (metered respondents more likely to give *no need for them* as a barrier).
- 7.3.5 Other barriers (not listed in 7.2) that respondents highlighted included (number of respondents in brackets):

- Water-efficient showerhead – *not thought about it* (19), *not got around to it* (7), and *in rented/council accommodation* (6);
- Spray taps – *not thought about it* (35), *in rented/council accommodation* (19), *not got around to it* (11) and *too much effort* (6);
- Dual flush/low flush toilet – *not thought about it* (21), *in rented/council accommodation* (19), *not got around to it* (14) and *not ready to replace* (11);
- Cistern displacement device – *not thought about it* (27), *have dual flush/low flush toilet* (13), *in rented/council accommodation* (9), *not got around to it* (5) and *water pressure* (5), and *didn't fit* (4);
- Water-efficient washing machine – *not ready to replace* (12), *not thought about it* (11), *in rented/council accommodation* (8), *not got around to it* (4);
- Water-efficient dishwasher – *not ready to replace* (20), *don't know what they're like* (15), *not thought about it* (14), *in rented/council accommodation* (4), *not got around to it* (4);
- Washing-up bowl – *not thought about it* (12) and *use a dishwasher* (12);
- Water butt – *not got round to it* (48), *not thought about it* (48), and *space to fit/how to fit* (39); and
- Watering can – *like to use a hosepipe* (6) and *habit* (5).

### 7.4 Recycling of Greywater

- 7.4.1 Respondents were asked if they would be willing to use greywater from their own bath, showers and washbasins, if it was filtered and disinfected, for use in and around their household for a number of activities. Responses are shown in Table 7.3.

**Table 7.3 Use of their own household's greywater**

Task	Response	
	Yes	No
For watering the lawn or flowers (2003)	84%	16%
For watering garden vegetables (2003)	79%	21%
For toilet flushing (2000)	82%	19%

7.4.2 Respondents show a high level of willingness to use their own household's recycled greywater. Similar results were obtained in a smaller-scale national telephone survey of 510 respondents conducted by MVA and WRc on behalf of the then ODPM in summer 2005<sup>12</sup>, which also found that most respondents were happy to use their own recycled greywater for watering the lawn and flowers, and flushing the toilet (83% and 84% respectively). Respondents in the 2005 study were less willing to recycle water for use on garden vegetables or in the washing machine; and much less willing to use their neighbourhood's greywater, irrespective of its end-use.

7.4.3 A larger proportion of respondents in non water-stretched areas were reluctant to use recycled greywater for:

- watering the lawn/flowers (21%) compared to those in water-stretched areas with restrictions (18%) and in particular without restrictions (11%);
- watering garden vegetables (27%) compared to those in water-stretched areas with restrictions (24%) and without restriction (14%); and
- toilet flushing (22%) compared to those in water-stretched areas (17%).

7.4.4 Younger respondents were slightly less willing to use recycled greywater to water the lawn/flowers (16-34 – 80%, 35-60 – 86%, 61+ 84%) and garden vegetables (16-34 -75%, 35-60 – 81%, 61+ - 81%).

## 7.5 Retro-fitting of devices

7.5.1 Retro-fitting was explained to respondents and then they were asked if they had a retro-fitted toilet device. As can be seen in Table 7.4, less than one in six homes (16%) have a retro-fitted WC flushing device.

<sup>12</sup> WRc (2005). Reducing water consumption in buildings: Work Package 5. Interim Report 6. ODPM contract CI 71-8-6 (bd2472).

**Table 7.4 Retro-fitted WC flushing device**

Response	Percentage
Yes	16%
No	75%
Don't know	10%
(Base 2002)	

- 7.5.2 Slightly more respondents in water-stretched areas with restrictions have a retro-fitted WC flushing device (17%) compared to those in water-stretched areas without restrictions (14%) and non water-stretched areas (16%).
- 7.5.3 Respondents aged 35-60 are more likely to have a retro-fitted WC device in their home (17%) compared to those aged 16-34 (15%) and 61+ (14%). Also, respondents in the high SEG group are more likely to have a retro-fitted WC device (22%) compared to those in the low SEG group (14%).
- 7.5.4 When asked if they would be willing to volunteer to have a retro-fitted device in their home fitted free of charge, two thirds of respondents indicated that they would be willing to take part, as shown in Table 7.5.

**Table 7.5 Would you be willing to participate?**

Response	Percentage
Yes	67%
No	34%
(Base 1997)	

- 7.5.5 This response was similar across water category areas and metered/unmetered respondents. However, respondents in the higher age group (61+) were less likely to want to participate (59%) compared to those aged 16-34 (67%) and 35-60 (70%). Also, respondents in the low SEG group were less likely to want to participate (65%) compared to the high SEG group (73%).
- 7.5.6 Respondents who had indicated that they would not be willing to participate mainly gave the following reasons:

- Don't want to be bothered/too much effort/don't have the time (57%);
- Council house/rented house/not my decision (20%); and
- Don't like the intrusion/privacy (14%).

- 7.5.7 Those respondents who had indicated that they would be willing to participate, were asked the following:

*"Imagine you had a dual flush fitted to your toilet and you found the performance acceptable at the end of the trial period with a saving in water of 10%. If you were offered a choice of removing the device, or paying a small amount to keep it, what would you do?"*

- 7.5.8 Results are shown in Table 7.6.

**Table 7.6 How much would you pay to keep dual flush device?**

Response	Percentage
Pay £20	17%
Pay £10	19%
Pay £5	17%
Keep the device but at no cost	45%
Have the device removed	3%
(Base 1334)	

- 7.5.9 Respondents who pay for water via a meter were more willing to pay £20 to keep the device (20%) compared to unmetered respondents (16%). This again highlighted a willingness amongst customers to pay more upfront for a water-efficient device or appliance when they expect to recover the initial outlay through usage savings. Older respondents were less willing to pay £20 to keep the device (11%) compared to those aged 16-34 (20%) and 35-60 (18%) and a higher percentage wanted to keep the device but at no cost (56%) compared to those aged 16-34 (43%) and 35-60 (42%). Similarly, respondents in the high SEG group were more willing to pay £20 to keep the device (20%) compared to the low SEG group (16%) and a higher percentage of respondents in the low SEG group wanted to keep the device but at no extra cost (48% and 34% respectively).<sup>13 14</sup>

- 7.5.10 Of those respondents who indicated that they would be willing to try a retro-fitted device, the highest proportions of respondents would prefer water company staff or an independent plumber to fit the device.

<sup>13</sup> Research in Australia (Sarac, K., Day, D. & White, S. (2003). What are we saving anyway? The results of three water demand management programs in New South Wales, Australia. Water Science and Technology: Water Supply. 3(3):215-222.) has shown that the public responds positively to water-efficient product refit programmes if (a) the equipment is offered free or is heavily discounted, and (b) the programme is high profile and carefully managed.

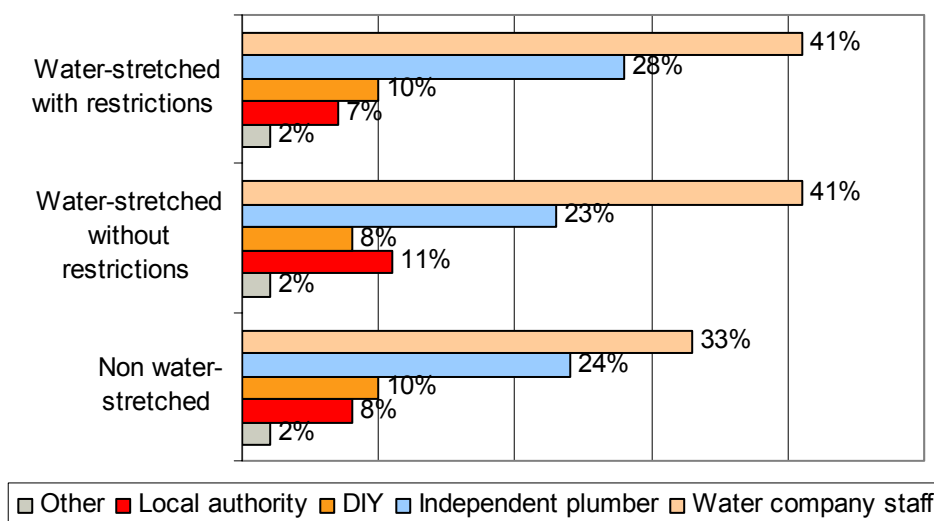
<sup>14</sup> Three different campaigns in 1998-1999 included the installation of efficient showerheads, cistern flush and tap flow regulators, and minor plumbing repairs such as fixing dripping taps. All three demonstrated statistically significant savings at the 5% significance level against control groups.

**Table 7.7 Who would you prefer to fit the device?**

Who	Percentage
Water company staff	38%
Independent plumber	25%
Do it Yourself	9%
Local authority	9%
Not sure/missing	17%
Other	2%
(Base 2006)	

7.5.11 Those that selected 'other' mentioned their landlords or approved/experienced contractors.

7.5.12 A higher proportion of respondents in water-stretched areas with restrictions would prefer either an independent plumber or water company staff to fit the device. This is shown in Figure 7.1.

**Figure 7.1 Who would you prefer to fit the device? – by water area**

7.5.13 Of those respondents who selected to fit the device themselves, there was a higher proportion of bill-payers (94%) compared to that represented in the total sample (87%) and those in age group 35-60 (64% compared to 47% in the total sample).

- 7.5.14 Excluding respondents who indicated that they would prefer to fit the device themselves, respondents would like either a telephone call to arrange an appointment (50%) or send a letter (49%). Only a very small percentage would like to receive an impromptu visit (1%).
- 7.5.15 Respondents in water-stretched areas without restrictions were more likely to wish to receive a telephone call rather than a letter. This is shown in Table 7.8.

**Table 7.8 Preferred method of communication - by water area**

	Percentage		
	Water-stretched with restrictions	Water-stretched no restrictions	Non water- stretched
Telephone to arrange an appointment	53%	37%	60%
Send a letter	45%	61%	40%
Make an impromptu visit	1%	1%	<1%
Other	2%	1%	<1%
(Base 1135)			

- 7.5.16 A significant percentage of respondents would consider having retro-fitted devices fitted to their toilet cistern (56%), taps (54%) and showerheads (49%). This was similar across the different water category areas and is detailed below.

**Table 7.9 Appliances that respondents would be happy to have retro-fit devices fitted to – by water area**

	Percentage		
	Water-stretched with restrictions	Water-stretched no restrictions	Non water- stretched
Toilet cistern	57%	57%	55%
Taps	53%	53%	56%
Showerheads	48%	51%	46%
Other	3%	2%	3%
(Base 2006)			

- 7.5.17 A lower proportion of younger respondents are willing for retro-fitted devices to be fitted to their taps (23%), showerheads (23%) and toilet (22%) than is represented in the total sample.

## 7.6 New toilet development

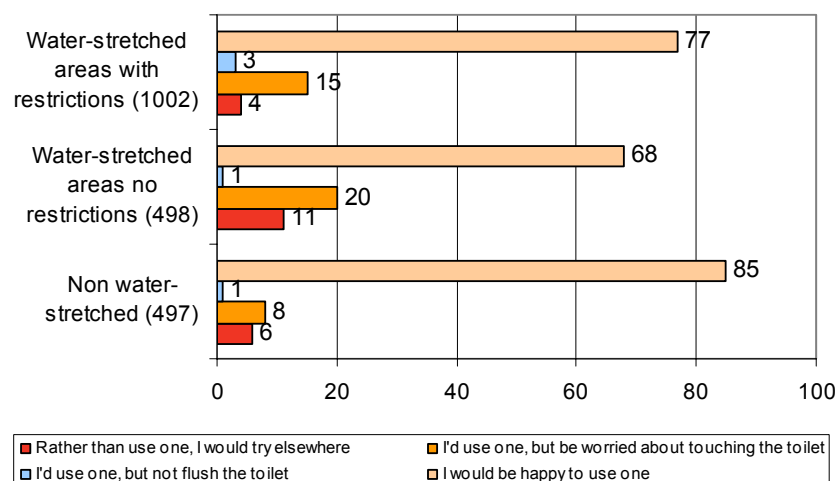
- 7.6.1 We also asked respondents to consider whether they would use a new type of public toilet. It uses less water than standard toilets and, in order for it to work correctly, people must put the toilet lid down before flushing the toilet. Consideration is being given to introducing these toilets in hotels, restaurants and other public places. To assist with its development, respondents were asked for their views. Responses are shown in Table 7.10.

**Table 7.10 New public toilet service**

Item	Percentage
I would be happy to use one	77%
I'd use one, but would be worried about touching the toilet lid	15%
I'd use one, but not flush the toilet	2%
Rather than use one, I would try elsewhere	7%
(Base 1998)	

- 7.6.2 As can be seen in Table 7.10, the majority of respondents would be happy to use one of the new toilets. Respondents commented that they were not concerned about closing the lid as they would then wash their hands anyway.
- 7.6.3 Although the trend was the same, there were some differences in water category areas. These are shown in Figure 7.2.

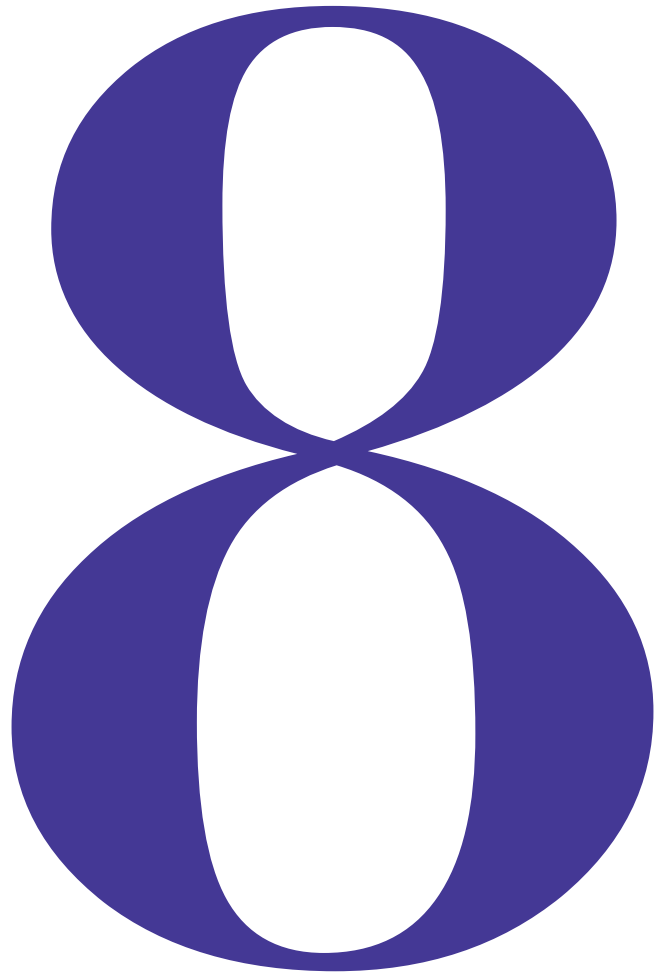
**Figure 7.2 New toilet development – by water area**



## **7 Use, and potential for use, of water-efficient devices**

- 7.6.4 Respondents in the high SEG group would be more likely to be happy to use one of the new toilets (82%) compared to the low SEG group (75%).







## 8 Attitude to water company restrictions and demand management

### Summary of chapter

- The majority of respondents thought all parties (households, businesses and water companies) should be trying to save water (84%).
- 76% of respondents felt that water companies do not do enough to save water. The majority of respondents (72%) stated that they would definitely/maybe do more to save water if they perceived that the water companies were doing more to save water.
- In all three areas, the majority of respondents were able to correctly identify whether or not there were water restrictions in their area. One in five respondents in water-stretched areas were either unsure or wrong about the water restrictions in place in their area. Younger respondents had the greatest uncertainty.
- Half of respondents stated that if a drought order came into effect in their area for 12 months that banned all non-essential water use, it would bother them/their family *a bit* and a further 12% that it would *considerably affect me/my family's quality of life*. The remaining 38% stated that it would not bother them or their family at all.
- At times of water scarcity and on the assumption that their water company is doing all it can to conserve water, the majority of respondents were very willing or fairly willing to accept hosepipe bans (80%), bans beyond hosepipes (61%) and the compulsory installation of water meters (53%). However, respondents were less willing to accept standpipes and rota cuts (38%), and drought permits that allow water companies to take more water from rivers but which may put more strain on fish and other wildlife (35%). Respondents in water-stretched areas with restrictions were more willing to accept drought permits to try to resolve the shortage of water than those in other areas. Those respondents living in areas where water is stretched but no restrictions are more receptive to the idea of hosepipe bans and bans beyond hosepipes. Metered respondents were more willing to accept the compulsory installation of water meters for all households than unmetered respondents.
- Most respondents are not willing to pay higher bills to avoid water restrictions. This could be due to their opinion that water companies are partly to cause for water shortages. This is further evidenced by the fact that respondents believe approximately 29% of water is lost by water companies through leakage.
- Over the total sample, respondents were generally unwilling to pay extra on their water bill to avoid water restrictions for the next twelve months. However the small percentage (approximately 10%) that were *very or fairly willing* to pay extra on their water bill to avoid restrictions, were on average willing to pay between £12 and £20 per annum
- Of those respondents able to make an estimate, they believe that just under one-third of water is lost by water companies. The vast majority of respondents were of the opinion that water companies should invest in leakage reduction (96%), with 62% stating that this should be only until the cost of leakage reduction is equal to the cost of water lost (this was 57% in water-stretched areas with restrictions and 71% in water-stretched areas without restrictions).

- The majority of respondents (75%) would not be willing to pay extra on their water bill in order to enable water companies to invest in leakage reduction. However the percentage willing to pay increased from 25% to 40% if they knew that a significant proportion of their company's profits were being invested to reduce leakage. Those in non water-stretched areas were more likely to be willing to pay extra on their water bill for investment in leakage reduction.

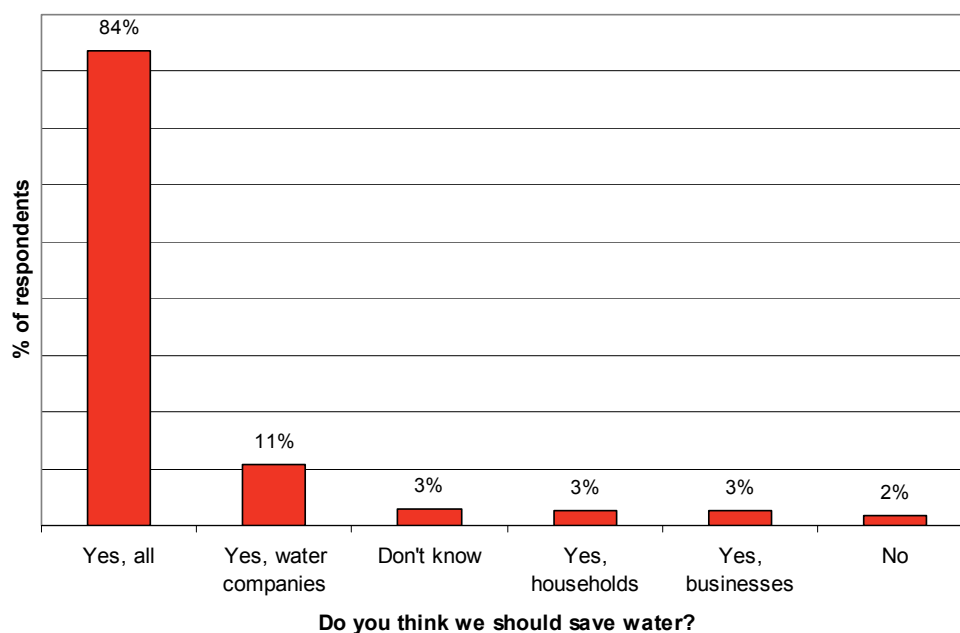
## 8.1 Introduction

- 8.1.1 This chapter presents consumers' views on water company restrictions on use of the water supply through hosepipe bans, drought orders, bans on non-essential use, standpipes and rota cuts; and the prospect of compulsory metering in water scarce areas. It also aims to establish consumers' views on water leakage and what should be done to tackle it.

## 8.2 Attitudes towards saving water

- 8.2.1 Respondents were asked to indicate who they thought should be saving water, e.g. the water companies, businesses or households themselves. The majority of respondents thought all parties: households, businesses and water companies should be trying to save water (83.6%). Figure 8.1 presents the results.

**Figure 8.1 Who should be saving water?**



(Base 2006)

- 8.2.2 Of those who did not think households, water companies and businesses all needed to save water, most felt that it was the water companies only that needed to save water (11%).
- 8.2.3 Respondents were then specifically asked if they thought water companies do enough to save water. Only 7% of respondents felt that water companies do enough to save water. A

further 76% felt that water companies do not do enough to save water and the remaining 17% did not know.

- 8.2.4 The majority of respondents (72%) stated that they would definitely/maybe do more to save water if they perceived that the water companies were doing more to save water. Table 8.1 illustrates respondents' attitudes to saving water by water-stretched area.

**Table 8.1 Would you do more to save water if the water company was doing more? by water-stretched area**

Option	Percentage		
	Water-stretched with restrictions	Water-stretched no restrictions	Non water-stretched
Definitely	33%	32%	33%
Maybe	39%	37%	43%
No	28%	31%	24%
(Base 1997)			

- 8.2.5 Respondents in non water-stretched areas are most likely to be influenced by water company actions – 76% would *definitely/maybe* do more to save water if water companies were; compared with 72% of those living in water-stretched areas with restrictions and 69% of those in water-stretched areas with no restrictions.
- 8.2.6 Those respondents aged 61+ were least likely to say that they would definitely/maybe do more to save water (65%) compared to 75% of those aged 16-34 and 74% of those aged 35-60.
- 8.2.7 Those respondents that indicated they would definitely or maybe do more to save water if their water company was doing more, would like to see water companies:

- invest in reducing leakage (76%);
- invest in water collection and storage (56%); and
- provide help and information on how to save water (51%).

- 8.2.8 Other tasks identified included re-invest profits, build desalination plants, build bigger/more dams, transport water from other areas, divert water that soaks into the ground for re-use and ensure all new buildings have water collection units installed.

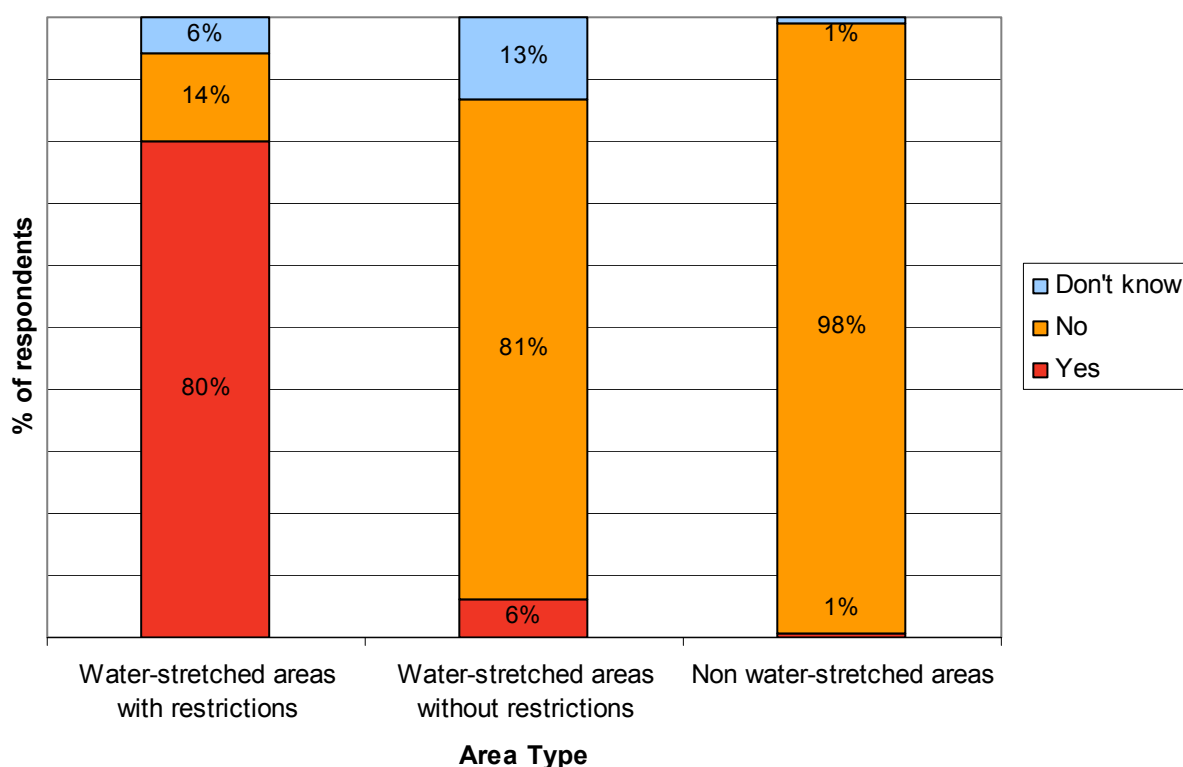
**Table 8.2 Actions respondents would like to see taken by water companies by water-stretched area**

Option	Percentage		
	Water-stretched with restrictions	Water-stretched no restrictions	Non water-stretched
Provide help and information on how to save water	62%	46%	47%
Invest in water collection and storage	64%	62%	43%
Invest in reducing leakage	71%	87%	69%
Other	1%	1%	<1%
(Base 1413)			

- 8.2.9 Those respondents in water-stretched areas with restrictions are more likely to want the water companies to provide help and information on how to save water (62%) compared with those in areas with no restrictions (46%) and non water-stretched areas (47%). This again highlights the greater awareness levels amongst respondents in water-stretched areas with restrictions for the need to save water. Respondents in the two water-stretched areas are also more likely to want the water companies to invest in water collection and storage (64 % and 62%) compares with 43% of those in non water-stretched areas.
- 8.2.10 The majority of respondents in water-stretched areas with no restrictions would like to see money invested in reducing leakage (87%). Those respondents who pay the water bill (77%) were more likely than non bill-payers (64%) to want the water companies to invest in reducing leakage. Those respondents on water meter were more likely to want to see investment in collection and storage of water (61%) than those who were not on a meter (54%).

### 8.3 Knowledge of water restrictions

- 8.3.1 Respondents were asked to state if there are water restrictions in their area. The findings for each water-stretched area are detailed in Figure 8.2.

**Figure 8.2 Knowledge of water restrictions by water-stretched area**

(Base 2006)

- 8.3.2 Overall, one in five respondents in water-stretched areas were either unsure or wrong about the water restrictions in place in their area. It is mainly younger respondents (aged 16-34) who are either unsure or incorrect (40% of those unsure/incorrect are aged 16-34, and 34% of those who are correct are aged 16-34).
- 8.3.3 The vast majority of respondents in water-stretched areas with restrictions did think that there were restrictions in their areas (80%); however 14% thought there were none. Those in non water-stretched areas did not think that there were restrictions in their areas (98%). A significant number of respondents in water-stretched areas without restrictions were unsure (13%).

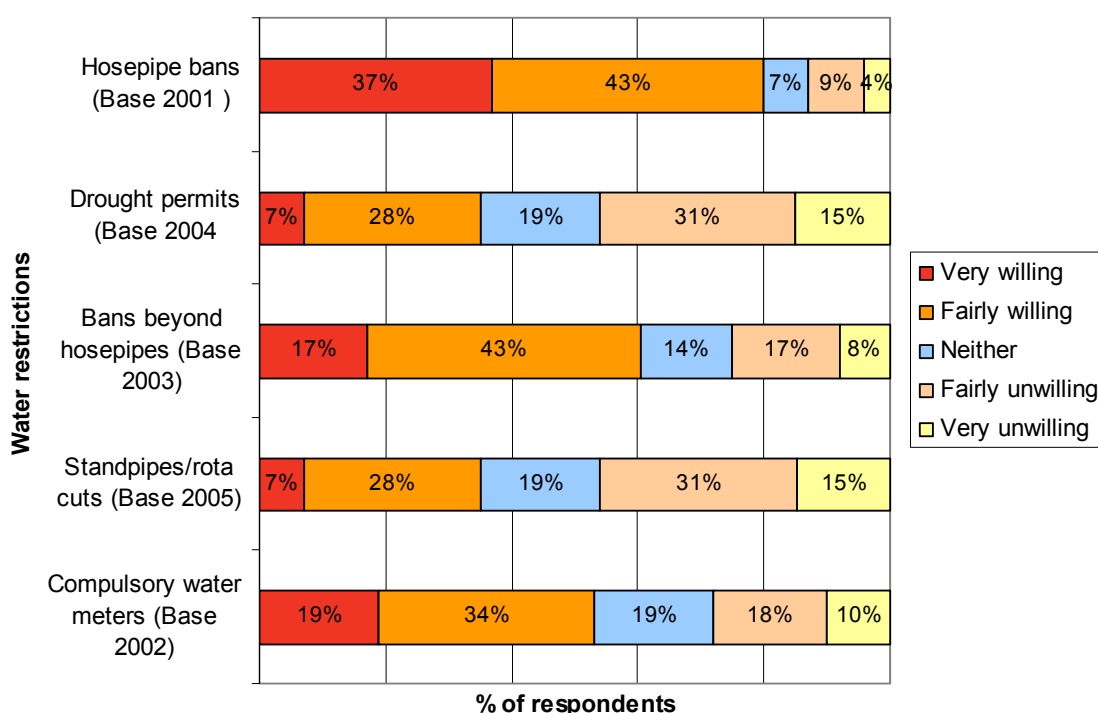
#### 8.4 Attitudes towards water company restrictions on use

- 8.4.1 Half of respondents stated that if a drought order came into effect in their area for 12 months that banned all non-essential water use, it would bother them/their family *a bit* and a further 12% said that it would *considerably effect me/my family's quality of life*, with the remaining 38% stating that it *wouldn't effect me/my family a all*. Those respondents who indicated that it would bother them *considerably* were more likely to have *gardening* as a hobby (34%) than those who indicated that it would not *bother them* (18% had gardening as a hobby).
- 8.4.2 Respondents were presented with the following question and asked to state how willing they would be to accept different water company restrictions on water use.

*"At times of water scarcity, if you were sure that your water company had done everything it reasonably could to save water; please indicate how willing you would be to accept the following water company restrictions on water use".*

- 8.4.3 Across the total sample, at times of water scarcity, the majority of respondents were very willing or fairly willing to accept hosepipe bans (80%) and the compulsory installation of water meters (53%). However, respondents were less willing to accept standpipes and rota cuts (38%), and drought permits that allow water companies to take more water from rivers but which may put more strain on fish and other wildlife (35%). The full details of the findings are presented in Figure 8.3.

**Figure 8.3 Level of acceptance of water restrictions (if sure water company has done all it can to save water)**



Drought permits – permits that allow water companies to take more water from rivers but which may put more strain on fish and other wildlife

Bans beyond hosepipes – water restrictions that go beyond a hosepipe ban (e.g. ban on watering cans, paddling pools, washing windows and cars)

Rota cuts – To cut off the supply of an area for a determined period

Compulsory water meters – the compulsory installation of water meters in water scarce areas

- 8.4.4 It should be stressed that, given most respondents did **not** think that water companies do all they can to save water, the above findings are based on a hypothetical situation. It does not, therefore, necessarily reflect their current willingness to embrace demand management measures.
- 8.4.5 There are some differences between respondents within the different water-stretched areas. These are detailed in Table 8.3.

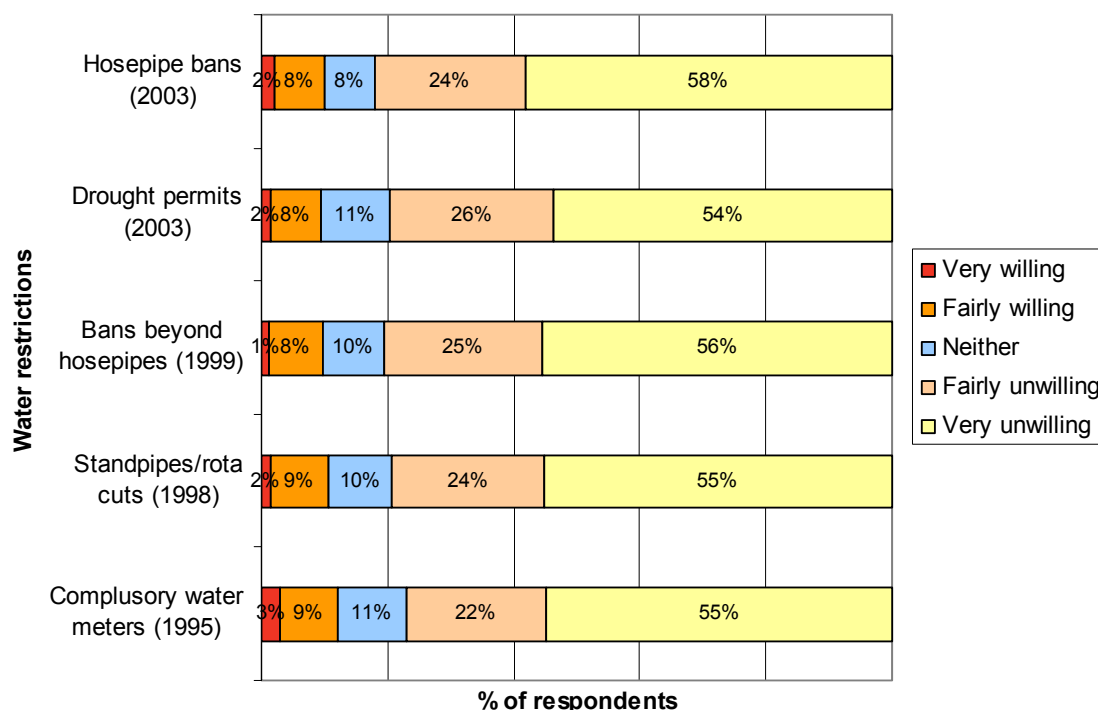
**Table 8.3 Attitudes towards water restrictions by water companies by water-stretched area**

Water restriction	Percentage Very willing or Fairly willing					
	Water-stretched with restrictions		Water-stretched no restrictions		Non water-stretched	
	Very	Fairly	Very	Fairly	Very	Fairly
Hosepipe bans (Base 2001)	34%	43%	42%	45%	33%	42%
Drought permits (Base 2004)	9%	32%	6%	26%	7%	25%
Bans beyond hosepipes (Base 2003)	14%	41%	21%	47%	17%	42%
Standpipes/Rota cuts (Base 2005)	7%	33%	7%	29%	6%	33%
Compulsory water meters (Base 2002)	20%	33%	22%	34%	16%	36%

- 8.4.6 Respondents in areas where restrictions already exist are more willing to accept drought permits to try to resolve the shortage of water than those in other areas. Those respondents living in areas where water is stretched but no restrictions are more receptive to the idea of hosepipe bans and bans that would not permit car washing than the other areas.
- 8.4.7 A higher percentage of metered respondents (71%) would be *very/fairly willing* to accept the compulsory installation of water meters for all households compared with less than half of unmetered respondents (48%).
- 8.4.8 Bill-payers were also more willing to accept water restrictions than those who did not pay the bill. The majority of bill-payers (82%) would accept a hosepipe ban compared with 70% of non bill-payers. They were also willing to accept further restrictions, e.g. ban on watering cans, washing cars, (63%) than non-bill-payers (47%) and compulsory metering (55% of bill-payers and 44% of non bill-payers very or fairly supportive).
- 8.4.9 In all cases those respondents aged 16-34 were less willing to accept water restrictions than those aged 35-60 and 61+, particularly with regards to a hosepipe ban. The main difference between the social groups concerned the compulsory installation of water meters. Those respondents classed as high SEG were more willing to accept the compulsory installation of water meters (62%) compared with (51%) of those in the low SEG. This may be due to the perception that water bills will rise if a water meter is installed.

8.4.10 Over the total sample, respondents were generally unwilling (approx 80% very/fairly unwilling) to pay extra on their water bill to avoid water restrictions for the next twelve months. Figure 8.4 presents the findings.

**Figure 8.4 Willingness to pay extra to avoid water restrictions**



8.4.11 In most cases, those aged 61 and over and those in the low SEG were the most unwilling to pay extra to avoid water restrictions in the next twelve months.

8.4.12 Respondents in water-stretched areas with no restrictions were less likely to be willing to pay extra on their bill to avoid water restrictions in the next twelve months. The full results are shown in Table 8.4 below.

**Table 8.4 Willingness to pay extra to avoid water restrictions in the next twelve months by water-stretched area**

Water restriction	Percentage Very willing or Fairly Willing		
	Water-stretched with restrictions	Water-stretched no restrictions	Non water-stretched
Hosepipe bans (Base 2003)	11%	8%	11%
Drought permits (Base 2003)	10%	8%	11%
Bans beyond hosepipes (Base 1999)	10%	7%	15%
Standpipes/Rota cuts (Base 1998)	10%	8%	15%
Compulsory Water meters (Base 1995)	12%	10%	14%

- 8.4.13 The small percentage of respondents that were *very or fairly willing* to pay extra on their water bill to avoid restrictions, were on average willing to pay between £12 and £20 per annum. The findings are detailed in Table 8.5.

**Table 8.5 Increase in bill level respondents would be willing to pay to avoid water restrictions [for minority willing to pay anything]**

Water restriction	Mean value	Range
Hosepipe bans (Base 101)	£15	£1-£160
Drought permits (Base 118)	£20	£1-£150
Water restrictions that go beyond a hosepipe ban (Base 98)	£13	£1-£50
Standpipes/rota cuts (Base 118)	£15	£1-£100
Compulsory installation of water meters (Base 107)	£14	£2-£52

- 8.4.14 Respondents were most willing to pay extra to avoid drought permits which would allow water companies to take more water from rivers. It was explained to respondents that this could have an adverse affect on the wildlife in and around rivers
- 8.4.15 Generally those respondents classed in the high SEG were more likely to be willing to pay more to avoid restrictions than those in the lower socio economic group. On the whole those aged between 16 and 24 were willing to pay less to avoid restrictions to the use of hosepipes

and standpipes but were much more willing to pay extra to avoid drought permits and the compulsory installation of water meters.

- 8.4.16 There are some large differences between respondents living in different water-stretched areas. In general, those living within water-stretched areas without restrictions are more willing to pay extra to avoid restrictions being put in place. The full details are shown in Table 8.6.

**Table 8.6 Increase in bill level respondents would be willing to pay to avoid water restrictions by water-stretched area [for minority willing to pay anything]**

Water restriction	Water-stretched with restrictions	Mean value Water-stretched no restrictions	Non water-stretched
Hosepipe bans (Base 101)	£12	£19	£14
Drought permits (Base 118)	£16	£33	£12
Water restrictions that go beyond a hosepipe ban (Base 98)	£13	£13	£12
Standpipes/rota cuts (Base 118)	£12	£19	£15
Compulsory installation of water meters (Base 107)	£13	£10	£17

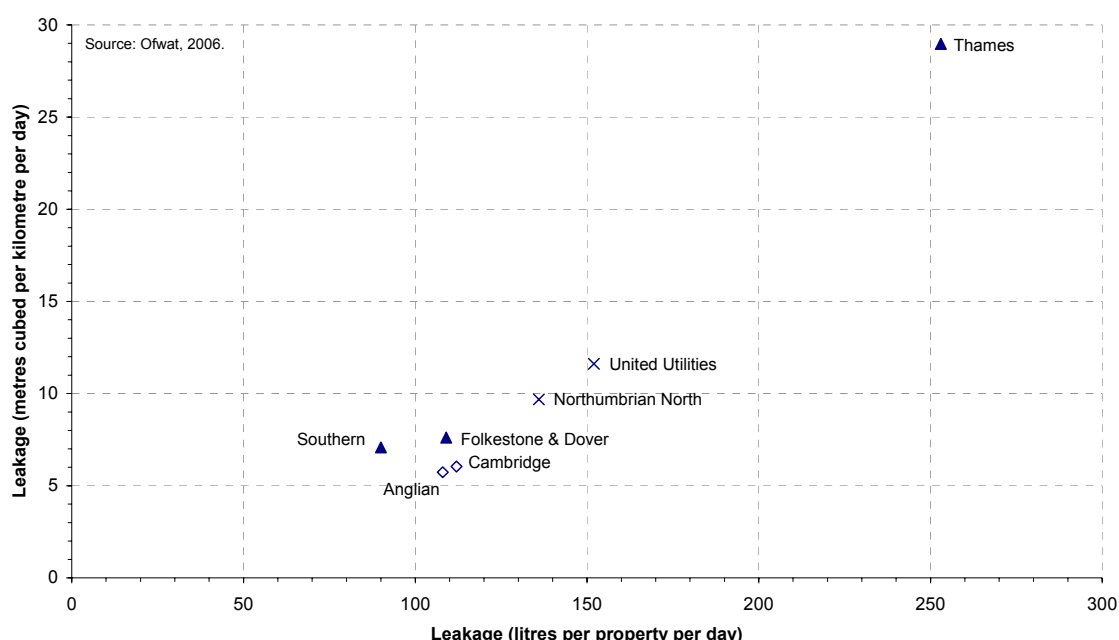
- 8.4.17 With the exception of the compulsory installation of water meters, those living in water-stretched areas with **no** restrictions were willing to pay a higher amount on top of their water bill than those living in other areas. In particular, these respondents would pay on average double that of those living in areas with restrictions in order to avoid drought permit restrictions.
- 8.4.18 In terms of the percentage increase on the average water bill in the water category area: in water-stretched areas with restrictions the percentage increase ranges from 9% to avoid hosepipe bans and standpipes/rota cuts to 12% to avoid drought permits; in water-stretched areas without restrictions it ranges from 10% to avoid the compulsory installation of meters to 28% to avoid drought permits; and in non water-stretched areas it ranges from 10% to avoid drought permits and water restrictions that go beyond a hosepipe ban to 14% to avoid the compulsory installation of meter<sup>15</sup>.

<sup>15</sup> <http://www.ofwat.gov.uk/aptrix/ofwat/publish.nsf/Content/pn0606>

## 8.5 Water leakage

- 8.5.1 Respondents were asked to estimate how much water supplied by their water company they thought was lost through leakage. Of those respondents who felt able to make an estimate (1677), the average was 29%. There are very few differences in the estimates with the exception of the bill-payers who were more likely to make a higher estimate (29%) than those who do not pay the bill (23%).
- 8.5.2 Actual leakage figures are highly spatially variable, and are reported, by water companies, both in terms of per property and per kilometre of water main basis to allow a fairer comparison between leakage in predominantly urban and less densely populated areas. Figure 8.5 shows the values of these leakage measures for those companies that serve the survey respondents.

**Figure 8.5 Leakage measures by water companies**



- 8.5.3 The filled triangles indicate respondents' water companies in a water-stretched area with a ban in place, diamonds indicate those companies in a water-stretched area without restrictions, and crosses indicate companies not in water-stretched areas.

## 8.6 Investment in water leakage

- 8.6.1 The vast majority of respondents were of the opinion that water companies should invest in leakage reduction (96%), with 62% stating that this should be only until the cost of leakage reduction is equal to the cost of water lost. This is shown Table 8.7.

**Table 8.7 Views on water companies investing in reducing leakage**

Do you think water companies should invest in leakage reduction....?	Percentage
Until leakage levels are practically zero even if it made water bills higher	34%
Only until the cost of leakage reduction is equal to the cost of water lost	62%
They shouldn't invest at all	4%
(Base 1983)	

8.6.2 The main differences are between respondents in the different water-stretched areas.

**Table 8.8 Views on water companies investing in reducing leakage by water-stretched area**

Do you think water companies should invest in leakage reduction...?	Water - stretched with restrictions	Percentage Water-stretched no restrictions	Non water-stretched
Until leakage levels are practically zero even if it made water bills higher	41%	23%	39%
Only until the cost of leakage reduction is equal to the cost of water lost	57%	71%	58%
They shouldn't invest at all	3%	6%	3%
(Base 1927)			

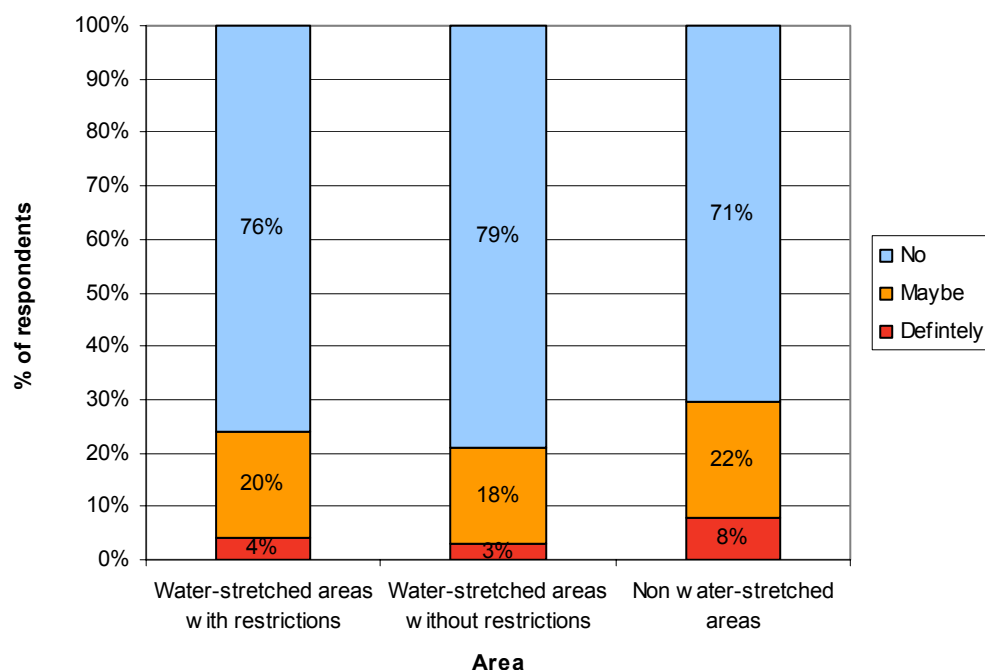
8.6.3 Those respondents living within water-stretched areas with no restrictions were far less likely to want water companies to reduce the leakage to practically zero (23%) compared with 41% and 39% of those living in areas with bans and non water-stretched areas respectively.

8.6.4 The majority of respondents (75%) would not be willing to pay extra on their water bill in order to enable water companies to invest in leakage reduction. Respondents who stated that they would *definitely* or *maybe* be willing to pay more, would on average pay £20 on their yearly bills. Full results are shown in Table 8.9.

**Table 8.9 Willingness to pay extra for a reduction in water leakage**

Willingness to pay extra	Percentage
Definitely	5%
Maybe	20%
No	75%
(Base 2049)	

8.6.5 Differences by water-stretched area were noted, these are shown in Figure 8.6.

**Figure 8.6 Willingness to pay extra for a reduction in water leakage by water-stretched area**

(Base 1999)

8.6.6 30% of respondents living in non water-stretched areas were willing to pay extra to reduce water leakage (definitely/maybe) compared to 24% in areas with restrictions and 21% in water-stretched areas without restrictions. However, there was little variation in the extra amount they would be willing to pay.

8.6.7 Those respondents aged 61 and over were the least likely to be willing to pay extra on their water bill (19%) compared to 25% of those aged 35-60 and 28% of those aged between 35-60. Those respondents aged 61 and over who were willing to pay more, would pay an extra £15 on average compared with £19 and £24 for those respondents aged 16-34 and 35-60 respectively.

- 8.6.8 Those respondents in the high SEG group were far more willing to pay extra to reduce leakage (34%) compared to 22% of those in the low SEG group. Those in the high SEG group would on average pay £4.00 more than those in the low SEG group.
- 8.6.9 Two-fifths of respondents (40%) stated that they would be willing to pay extra on their water bill to reduce water leakage if they knew that a significant proportion of their water company's profits were being invested to reduce leakage. This is a higher percentage than those willing to pay extra without the addition of their water company's profits being invested to reduce leakage. This is shown in Table 8.10.

**Table 8.10 Willingness to pay extra for a reduction in water leakage – with and without water company profits being invested in leakage reduction**

Willingness to pay extra	Without company profits	With company profits
	invested	invested
Definitely	5%	13%
Maybe	20%	27%
No	75%	61%
(Base)	(2049)	(2033)

- 8.6.10 Those in the high SEG group were more willing to pay extra (50%) compared to those in the low SEG group (37%).
- 8.6.11 Those in non water-stretched areas were also more likely to pay more (45%) compared to 39% in water-stretched areas without restrictions and 35% in areas with restrictions – perhaps highlighting that people in water-stretched areas are more critical of their water company's actions, or lack of actions.

9



## 9 Attitudes to metering and pricing initiatives

### Summary of chapter

- Just over half (53%) of respondents who are not charged for water via a meter do concern themselves with how much water they use. However, around one in every three (32%) strongly agreed/agreed that they don't need to worry about how much they use because they are not on a meter.
- Almost half (46%) of metered customers stated that they *strongly agreed/agreed that they can use as much water as they liked*, whilst a smaller percentage (43%) *strongly disagreed/disagreed*.
- When asked what was the fairest way to charge customers for water services, 49% of respondents felt that *customers should be able to choose* and 46% that *all customers should be metered*.
- The majority of unmetered respondents stated that their water usage would not decrease if a meter was installed. Regarding water bills, 38% thought that their bill would remain unchanged, 32% that it would go down and 30% that it would go up. The main barriers to meter installation were: respondents had not thought about it; they had never been approached or asked to have a meter; and concerns regarding rising bills.
- However, comparison of attitudes and behaviour amongst metered and unmetered customers suggests that positive effects are possible from metering. Metered customers are more likely to be aware of water being a scarce resource and adopt more water-efficient activities than unmetered customers. Therefore, there is evidence of a link between metering and efficient users. But it is not clear whether metering has led to greater customer awareness and efficiency, or whether the more aware and efficient customers have chosen to be on a meter.
- Most respondents, metered and unmetered, said that they would be more likely to reduce their water consumption if they had a display in the home that monitored their water usage, or if they received information showing their use compared with the average user.
- There were a range of views regarding support for increasing the unit price of water after a certain amount of water had been used, with 35% being *very/fairly supportive*, and 48% being *very/fairly unsupportive*.
- Over half of respondents were *very/fairly unsupportive* of increasing the price of water only when there are restrictions in place (55%) and during high demand (55%).
- 65% of respondents were supportive of small grants towards the purchase of water-efficient appliances.
- Overall those on a water meter were slightly more likely to be in favour of these pricing initiatives than those not on a water meter.

### 9.1 Introduction

- 9.1.1 This chapter focuses on respondents' attitudes to charging for water based on household consumption. It also explores the perceptions of unmetered respondents regarding their

water consumption if they were to be metered. In addition, it identifies whether the location of a meter and the use of price signals through metered tariffs, could have a positive effect on usage.

## 9.2 General attitudes to water consumption

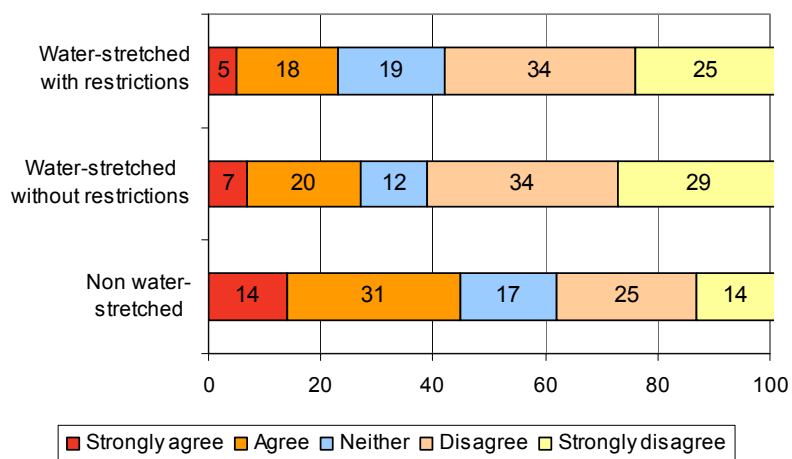
- 9.2.1 Respondents who are currently charged for water via a meter and those who are not were asked if they agreed/disagreed with different statements as shown in Table 9.1.

**Table 9.1 Attitudes to metering**

Question	Strongly Agree	Agree	Neither	Disagree	Strongly Disagree
<u>Unmetered Respondents:</u> I'm not on a meter, so I don't worry about how much water I use (Base 1233)	9%	23%	16%	31%	22%
<u>Metered Respondents:</u> I'm on a water meter so I can use however much I like because I pay for what I use (Base 655)	14%	32%	12%	25%	18%

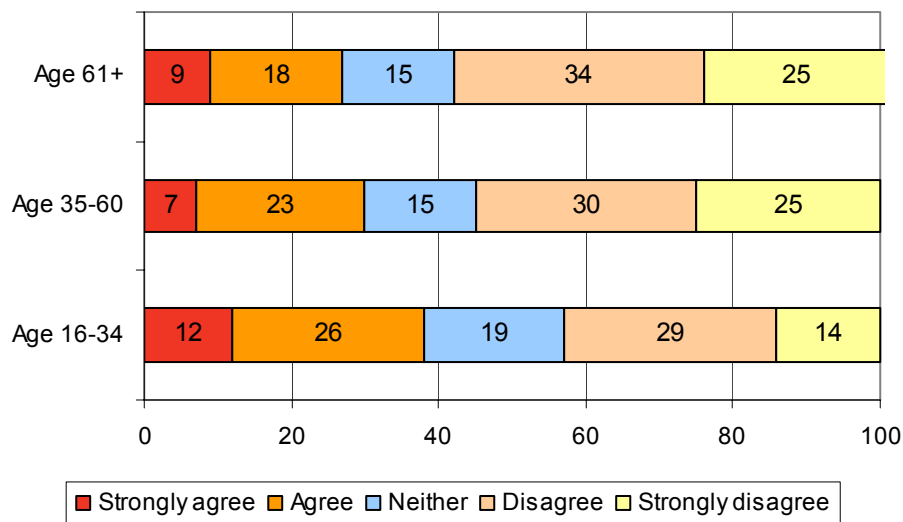
### Unmetered respondents

- 9.2.2 Just over half (53%) of respondents who are not charged for water via a meter do concern themselves with how much water they use. However, around one in every three (32%) strongly agreed/agreed that they don't need to worry about how much they use because they are not on a meter.
- 9.2.3 Respondents in non water-stretched areas were more likely to *strongly agree/agree* that as they are not on a meter they do not worry about how much water they use, and less likely to *strongly disagree/disagree*. This is shown in Figure 9.1.

**Figure 9.1 Unmetered respondents views on water consumption – by water area**

Base (1247)

- 9.2.4 Younger respondents were more likely to *strongly agree/agree* that as they are not on a meter they do not worry about how much water they use and less likely to *strongly disagree/disagree*. This is shown in Figure 9.2.

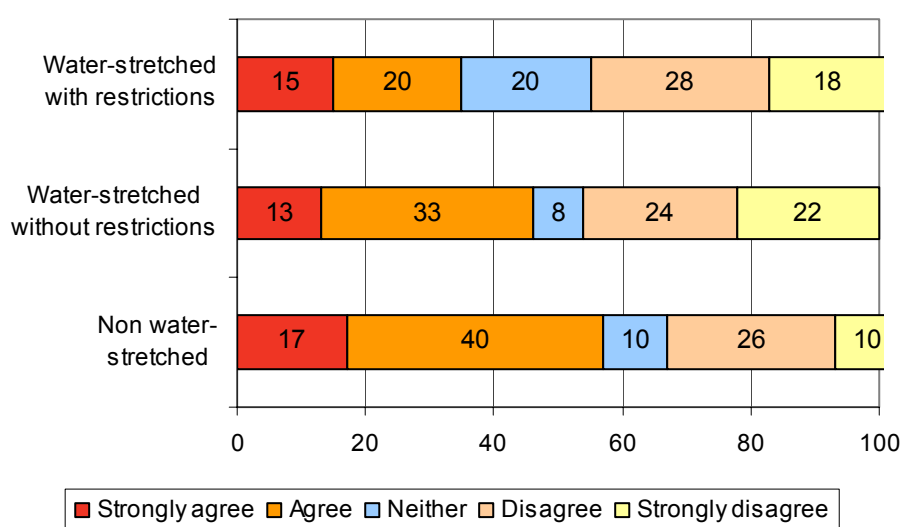
**Figure 9.2 Unmetered respondents views on water consumption – by age**

- 9.2.5 Respondents in the high SEG group were more likely to *strongly disagree* that as they are not on a meter they do not worry about how much water they use (31% high, 20% low).

### Metered respondents

- 9.2.6 As shown in Table 9.1, metered respondents had varied opinions on whether being on a water meter meant they can use however much water they liked. Almost half (46%) stated that they *strongly agreed/agreed that they can use as much water as they liked*; whilst a smaller percentage (43%) *strongly disagreed/disagreed*.
- 9.2.7 Respondents in non water-stretched areas were more likely to *agree* that they could use however much water they liked because they pay for what they use. However, a significant proportion of respondents in water-stretched areas with restrictions (35%) still felt that they could use as much water as they liked because they were paying for the volume they used. Full details are shown in Figure 9.3.

**Figure 9.3 Metered respondents views on water consumption – by water area**



(Base 565)

- 9.2.8 Bill-payers were less likely to *strongly agree* that as they are on a water meter they can use however much they like because they pay for what they use (13%) compared to non bill-payers (22%) and more likely to *strongly disagree* (19% compared to 8% of non bill-payers).

### 9.3 General attitudes to metering

- 9.3.1 Respondents were then asked to select which statement they thought indicated the fairest way of charging customers for water services. As shown in Table 9.2, the largest proportion of respondents felt that *customers should be able to choose*.

**Table 9.2 Fairest way of charging customers for water services**

Response	Percentage
All customers should be charged based on the rateable value of their property	5%
All customers should be metered (charged based on how much water they use)	46%
Customers should be able to choose (Base 1990)	49%

- 9.3.2 Respondents who are currently charged for water consumption via a meter were more likely to agree that all customers should be metered (68%) compared to unmetered respondents (39%); and less likely to agree that customers should be able to choose (30% metered, 59% unmetered).
- 9.3.3 Respondents in the high SEG group were more likely to agree that all customers should be metered (56%) compared to those in the low SEG group (43%); and less likely to agree that customers should be able to choose (41% high, 51% low).

#### 9.4 Perceptions of unmetered respondents to metering

- 9.4.1 Respondents who are not currently charged for water consumption via a meter, were asked what they thought would happen to their water consumption if they were metered.

**Table 9.3 What would happen to your household's water use if you were metered?**

Response	Percentage
Unchanged	55%
Go up	11%
Go down	34%
(Base 1205)	

- 9.4.2 Older respondents (aged 61+) were more likely to state that their water consumption would remain unchanged (62%), compared to those aged 16-34 and 35-60 (53%).
- 9.4.3 Respondents who had indicated that their water consumption would *go down* if they were metered thought that this was mainly because they would *be more careful about how much water you used* (90%), with 18% indicating that they would *install water-efficient devices*. Respondents who indicated *other* for this question (5%), stated that they would *restrict water use extensively* or *use very little water*.

- 9.4.4 Respondents were asked to indicate what they thought would happen to their water bill if they were metered. Results are shown in Table 9.4.

**Table 9.4 What would happen to your water bill if you were metered?**

Response	Percentage
Unchanged	38%
Go up	30%
Go down	32%
(Base 1164)	

- 9.4.5 The largest proportion of respondents felt that their water bill would remain *unchanged* if they were metered (38%). This was mainly because they would:

- Just use the same amount of water/already use an average amount (26%);
- I already conserve water (23%);
- Not sure (16%);
- I would use less/be more careful (12%); and
- We use less water than other households/small household (7%).

- 9.4.6 Respondents who indicated that their water bill would go up (30%) stated that this was mainly because:

- Large family/use a lot of water (46%);
- Tariff is high (17%);
- Other people say that bills go up (14%); and
- Not sure (5%).

- 9.4.7 Respondents who indicated that their water bill would go down (32%) stated that this was mainly because:

- Use less water/be more careful (46%);
- We use less water/small household (22%);
- Only pay for the amount of water you use (9%);
- I already conserve water (8%); and
- Not sure (7%).

9.4.8 Older respondents (aged 61+) were less likely to state that their water bill would *go up* (18%) compared to those aged 16-34 (32%) and 35-60 (34%).

9.4.9 However, exploring existing behaviour amongst metered and unmetered customers suggests that positive effects are possible from metering. As reported in earlier chapters, metered customers are more likely than unmetered customers to adopt water-efficient activities, such as: restricting time in the shower to save water, and recycle water in some way. More specifically, the results reported in Chapter Four reveal a small, but consistent, tendency amongst metered customers to be more likely to:

- turn off taps when cleaning teeth (66% versus 53% of unmetered);
- shower rather than bath (69% versus 61%);
- recycle rainwater (69% versus 61%);
- re-use washing-up water (28% versus 21%); and
- consider water efficiency of appliance (40% versus 35%).

9.4.10 Metered customers also have a greater likelihood of having water-efficient items in the home. Table 9.5 summarises the results reported in Chapter Seven by metered/unmetered respondents.

**Table 9.5 Water-efficient devices in the home by metered/unmetered**

Device	Metered	Unmetered
Water-efficient showerhead	35%	28%
Spray-taps	26%	18%
Dual/low flush toilet	38%	35%
Hippo/Hog-bag	15%	9%
Water-efficient washing machine	74%	66%
Water-efficient dishwasher	42%	27%
Washing-up bowl	89%	85%
Water butt	55%	40%
Watering can	85%	82%

9.4.11 Results reported in Chapter Eight also suggest that metered customers are more likely to want to see investment in collection and storage of water by water companies (61% versus 54%).

- 9.4.12 There is evidence to link metering with greater awareness and efficiency. However, it is not clear whether metering has led to greater consumer awareness and efficiency, or whether the more aware and efficient consumers have chosen to be on a meter.

### 9.5 Barriers to having a water meter

- 9.5.1 Respondents were asked for the main reason they were not on a water meter. Responses included:

- Never thought about it (29%);
- Never been approached/no one has asked me (13%);
- Rising bills/cost (12%);
- House was built without one/wasn't one when we moved in (11%);
- Happy as we are/don't want one (11%);
- Rented accommodation/council accommodation/not my decision (10%);
- Never got around to it (4%);
- Have just moved in/are moving (2%);
- Would have to pay for installation/concerns about maintenance costs (2%); and
- Did not know you could apply/do not know how to get one (1%).

- 9.5.2 As can be seen, lack of awareness and knowledge are key barriers to uptake of meters.

### 9.6 Attitudes towards water consumption reduction

- 9.6.1 Those respondents who currently do not pay for their water via a water meter were asked *if they were metered, what would make them more likely to reduce their water use*. Half of the respondents stated that they would reduce their water use if they received information on their water use over the previous year and comparisons were made with typical water use. However, a higher proportion of respondents would reduce their water use if they had a display showing how much water they were using by the hour or day (58%).
- 9.6.2 The same question was put to those currently on a water meter, and the findings were very similar. Almost half of respondents (48%) would reduce water use if they received information on previous use, and 56% would reduce use if they had a display showing the amount of water consumed.
- 9.6.3 Tables 9.6 and 9.7 illustrates the findings by water-stretched area.

**Table 9.6 Which would make you likely to reduce your water use? by water-stretched area (unmetered respondents)**

Water reduction	Water-stretched with restrictions	Percentage Water-stretched no restrictions	Non water-stretched
Received information on your water use over the previous year...	48%	48%	54%
You could see a display that shows you how much water you were using	60%	62%	53%
	(Base 704)	(Base 242)	(Base 393)

- 9.6.4 Those (currently unmetered) respondents in water-stretched areas would be more likely to reduce their water use if they could see a display showing them how much water they had used. Whilst those respondents in non water-stretched areas were more likely to reduce their water use if they received information on their previous water use. This pattern also exists amongst those already on a water meter and can be seen in Table 9.7.

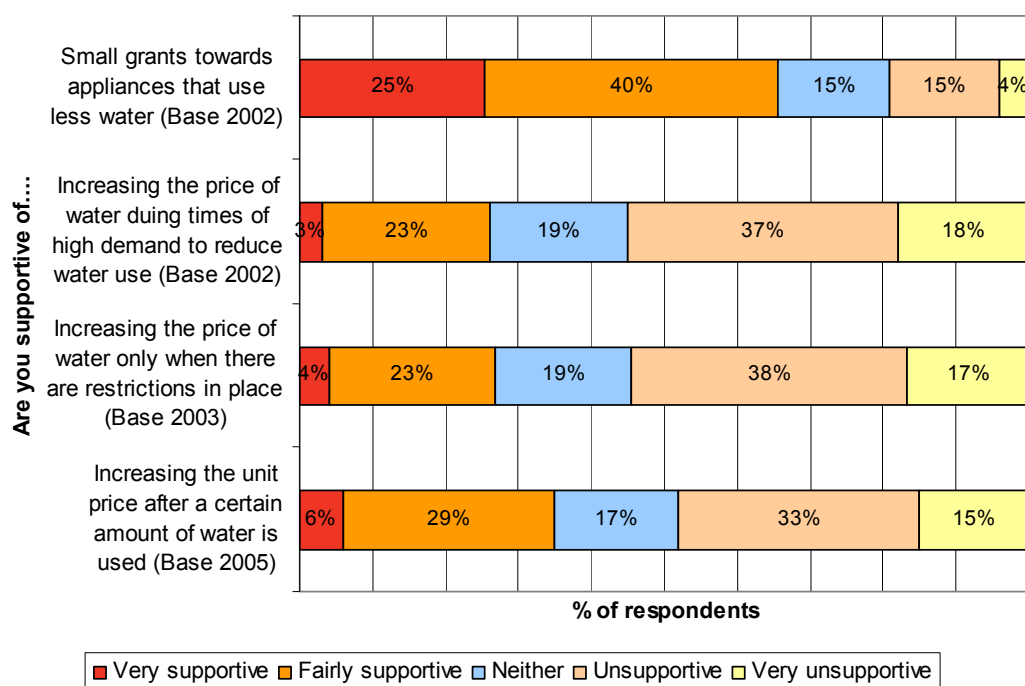
**Table 9.7 Which would make you likely to reduce your water use? By water-stretched area (metered respondents)**

Water reduction	Water-stretched with restrictions	Percentage Water-stretched no restrictions	Non water-stretched
Received information on your water use over the previous year...	48%	40%	60%
You could see a display that shows you how much water you were using	56%	64%	41%
	(Base 301)	(Base 258)	(Base 108)

- 9.6.5 There were also some differences by demographic group. Amongst the unmetered respondents, non bill-payers were much more likely to reduce water use if a display was present (68%) compared to receiving information on previous use (41%). Those respondents aged 16-34 were also more likely to reduce water if a display was present (66%) compared to 48% of those aged 61 and over. Those aged 61 and over preferred to receive information on their previous water use (54%). These patterns exist amongst the metered respondents.

9.6.6 Respondents were presented with a list of statements and asked to state how supportive they were of them. Figure 9.4 presents the results.

**Figure 9.4 Level of support for pricing initiatives**



9.6.7 There were a range of views regarding support for increasing the unit price of water after a certain amount of water had been used, with 35% being *very/fairly supportive*, and 48% being *very/fairly unsupportive*.

9.6.8 Over half of respondents were *very/fairly unsupportive* of increasing the price of water only when there are restrictions in place (55%) and during high demand (55%).

9.6.9 However, the majority of respondents were supportive of small grants towards the purchase of water-efficient appliances (65%).

9.6.10 Table 9.8 shows the level of support for each of the pricing initiatives by water-stretched area. Only the percentages for *very supportive/fairly supportive* are shown.

**Table 9.8 Percentage of respondents very/fairly supportive of the pricing initiatives by water-stretched area**

Water reduction	Percentage					
	Water-stretched with restrictions		Water-stretched no restrictions		Non water-stretched	
	Very	Fairly	Very	Fairly	Very	Fairly
Increased cost after a certain amount of water is used (Base 2005)	6%	29%	5%	30%	8%	29%
Increased cost only when restrictions in place (Base 2003)	4%	21%	3%	21%	4%	27%
Price fluctuations depending on demand (Base 2002)	3%	20%	3%	23%	3%	24%
Small grants towards appliances using less water (base 2002)	25%	36%	27%	45%	24%	39%

- 9.6.11 One of the main differences between the water-stretched areas concerned the level of support for price rises when restrictions are in place. Those respondents in non water-stretched areas were most supportive of this (31% very/fairly), possibly because the threat of restrictions has not yet occurred in these areas. Whereas those in areas where bans exist or are threatened are less supportive of price rises.
- 9.6.12 Overall those on a water meter were slightly more likely to be in favour of these pricing initiatives than those not on a water meter. This was significant in the case of increasing the cost of water after a certain amount had been used; 40% of metered users were in favour of this compared to 33% of unmetered users. Metered users were also significantly more supportive of fluctuating prices depending on demand (30% very/fairly) compared to unmetered users (24% very/fairly).
- 9.6.13 Bill-payers were also more likely to be more supportive of these initiatives than non bill-payers. Sixty-seven percent of bill-payers were supportive of the small grants initiative compared to 56% of non bill-payers.
- 9.6.14 Age influenced the views of some initiatives, for example those aged 61 and over were more likely to be unsupportive of fluctuating prices depending on demand. Sixty-three percent of this age group were either unsupportive or very unsupportive of this initiative compared with 51% of those aged 16-34 and 55% of those aged 35-60. Those aged 61 and over were also less likely to be supportive of increasing the price of water when restrictions were in place.
- 9.6.15 The high SEG group were more likely to be supportive of the pricing initiatives than those in the low SEG group.

- 9.6.16 Respondents were asked to consider whether they would adjust their water use in line with price fluctuations at different times of the year. Table 9.9 presents the findings.

**Table 9.9 Likelihood of respondents adjusting their water use in line with price fluctuations**

	Percentage
Very likely	13%
Fairly likely	25%
Neither/nor	24%
Fairly unlikely	17%
Very unlikely	21%
(Base 1984)	

- 9.6.17 There was an even split between those respondents who would be *very/fairly likely* to adjust their water use in line with fluctuating prices (38%) and those that would be *very/fairly unlikely* to do so (38%).
- 9.6.18 Those respondents living in water-stretched areas without restrictions were the most likely to adjust their water use in line with fluctuating prices (43%) compared with 37% of those in areas with restrictions and 35% of those living in non water-stretched areas. Those respondents living in urban areas are slightly more likely to adjust their water use in line with fluctuating prices (42%) compared with those in rural areas (35%).

10



## 10 Awareness of water efficiency messages, education and social marketing

### Summary of chapter

- Just under half of respondents who had bought a water-using appliance in the last five years indicated that they were aware of both the energy and water efficiency ratings of the appliances (47%), with 30% unaware of either.
- However, the majority of all respondents were not aware of water efficiency information although they were aware of energy efficiency labelling.
- Television adverts and messages on recycling are those that are recalled most. However many also recall messages on water conservation, partly on television, through leaflets/direct mail with their bills and in newspapers.
- The most recalled water efficiency messages included: *turn off the tap when cleaning your teeth; re-use dishwater; use a brick as a cistern displacement device; only filling the kettle with the water you need; and having a shower rather than a bath.*
- Most respondents would prefer to receive information about water conservation either in printed leaflets (42%) or on the television (42%). However, a significant number felt they were most receptive to messages in newspapers (30%) and on the Internet (26%). The water conservation messages that respondents reported remembering best were those on television.
- No single organisation is trusted by all respondents to give advice about water efficiency, with 39% of respondents indicating that they would trust water companies, 35% Ofwat, 22% Defra and 17% consumer organisations.
- Most respondents indicated that they would do more to save water if: they thought their water company was doing more; water-efficient devices were cheaper; it was easy to get information on how to conserve water; someone came round to their house to install water-efficient devices; and it was easier to buy water-efficient devices from a local shop.
- When asked to select two options that would make them conserve water, if water companies saved water and if water efficient devices were cheaper, were selected.

### 10.1 Introduction

10.1.1 This chapter reports our study findings regarding:

- respondents' awareness and use of energy and water efficiency information on appliances;
- the impact of existing water efficiency messages on respondents' behaviour;
- the preferred media format for message; and
- whom they trust for advice.

- 10.1.2 In this chapter, we also identify actions most likely to impact on respondents' behaviour and hence water consumption, and barriers to adoption of water-efficient behaviour.

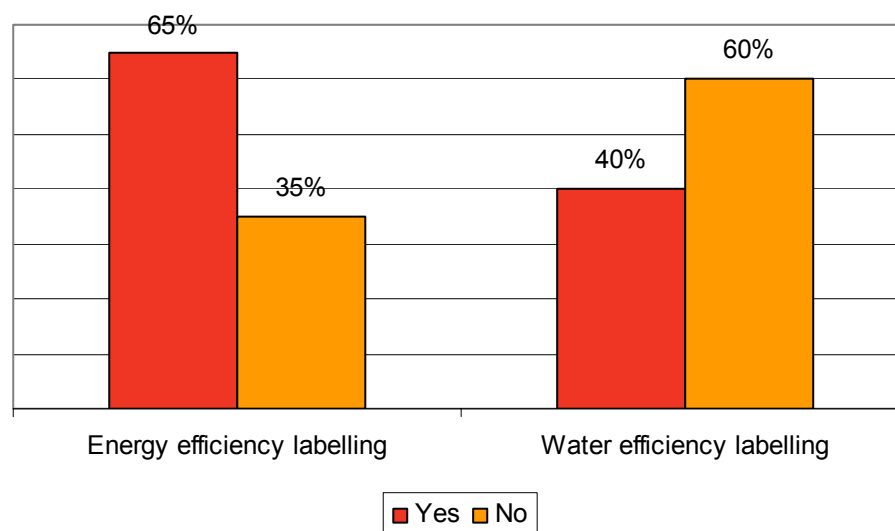
## 10.2 Efficiency labelling/information

- 10.2.1 Just over half of respondents had purchased a water using appliance in the last five years, and just under half of these indicated that they were aware of both the energy and water efficiency ratings of the appliances (47%). A significant minority were only aware of energy efficiency ratings (18%), with a smaller proportion only aware of water efficiency (5%). Almost one in three respondents (30%) were unaware of either energy or water efficiency ratings when they purchased their last water using appliance.
- 10.2.2 Currently there is no label for water efficiency or water efficiency rating. The energy efficiency label for dishwashers and washing machines does include information on water used per cycle, although it does not give comparative ratings. It could be that customers are linking energy and water efficiency.
- 10.2.3 Respondents in non water-stretched areas indicated that they were less aware of both energy and water efficiency ratings. This is shown in Table 10.1.

**Table 10.1 Awareness of efficiency ratings – by water area**

	Percentage		
	Water-stretched with restrictions	Water-stretched no restrictions	Non water- stretched
Energy only	18%	21%	13%
Water only	5%	4%	8%
Both energy and water	55%	47%	41%
Neither energy or water	22%	29%	38%
(Base)	(557)	(281)	(297)

- 10.2.4 Respondents in the high SEG group stated that they were more aware of energy ratings (20% compared to 17% of the low SEG group), water ratings (8% compared to 5%), and both ratings (52% compared to 46%).
- 10.2.5 Respondents were then asked if, in general, they have noticed energy efficiency labelling or information about water efficiency on appliances in stores or catalogues. Figure 10.1 shows their response.

**Figure 10.1 Awareness of energy and water efficiency information**

(Base 1978)

10.2.6 As can be seen, the majority of respondents were aware of energy efficiency labelling; however the majority of respondents were not aware of water efficiency information on appliances. (This may seem inconsistent with paragraph 10.2.1 where 52% of respondents stated that they were aware of water labelling. However, in that case, responses were from a sub-set of respondents who had bought a water using appliance in the last five years.)

10.2.7 Respondents in water-stretched areas with restrictions were generally more aware of both energy and water efficiency information on appliances. This is shown in Table 10.2.

**Table 10.2 Awareness of efficiency information in general – by water area**

	Percentage		
	Water-stretched with restrictions	Water-stretched no restrictions	Non water- stretched
Energy efficiency labelling	71%	66%	59%
Water efficiency information	54%	32%	38%
(Base)	(987)	(497)	(492)

10.2.8 Respondents aged 35-60 and 16-34 were more likely to be aware of energy efficiency labels (72% and 64% respectively) compared to those aged 61+ (51%). Similarly, those aged 35-

60 were more likely to be aware of water efficiency information (47%) compared to those aged 16-34 (36%) and 61+ (32%). Respondents in the high SEG group were also more likely to be aware of energy (76%) and water (48%) efficiency information compared to those in the low SEG group (52% energy and 38% water). In addition, bill-payers were more likely to be aware of energy efficiency labelling (66%) compared to non bill-payers (56%).

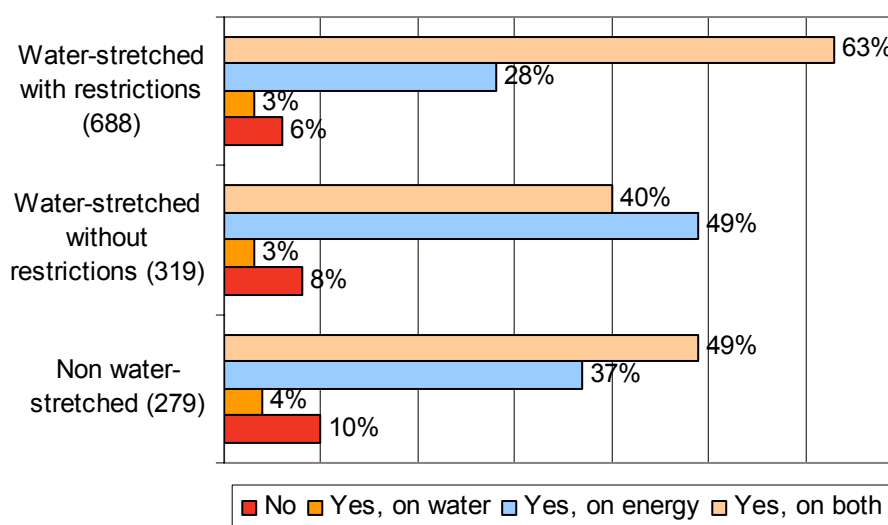
- 10.2.9 Respondents who stated that they had noticed energy or water efficiency information on appliances were asked if the information was easy to understand. Half of respondents thought that the information was easy to understand for both energy and water efficiency and a further 39% thought that the energy labelling was easy to understand but the water information was **not**. Results are shown in Table 10.3.

**Table 10.3 Was efficiency information easy to understand?**

Easy to understand?	Percentage
Yes, on both energy and water	50%
Yes, on energy	39%
Yes, on water	3%
No	8%
(Base 1286)	

- 10.2.10 Respondents in water-stretched areas with restrictions were more likely to have found both the energy and the water efficiency information easy to understand. Figure 10.2 shows the full results by water category area.

**Figure 10.2 Efficiency information easy to understand? – by water area**



- 10.2.11 Respondents were also asked if they took note of the information, with 47% stating that they *always* do and a further 45% *sometimes*. This does not necessarily mean that this information is important when making a purchase decision, as other factors may be considered of more importance (such as cost and perceived performance). Respondents in non water-stretched areas were less likely to state that they *always* take note of the information (41%) compared to those in water-stretched areas with (50%) and without (50%) restrictions. The proportion of respondents who stated that they *always* take note of the efficiency information increased with age (16-34 - 41%, 35-60 - 49%, 61+ - 53%).

### 10.3 Media Campaigns

- 10.3.1 Respondents stated that television adverts *stick in their memory*. However, a number of respondents (19%) also stated that magazine/newspaper articles and adverts *stick in their memory*. Full details of responses are shown in Table 10.4.

**Table 10.4 What types of adverts stick in your memory in general? (multiple response)**

Type	Percentage
Television adverts	65%
Radio adverts	10%
Magazine/newspaper articles/adverts	19%
Celebrity endorsement campaigns	7%
Billboards	9%
Other	18%
(Base 2006)	

- 10.3.2 The percentage of respondents who stated that television adverts stick in their memory was similar across the different water category areas and respondent profiles.
- 10.3.3 Of those who stated that radio adverts stick in their memory, there is a higher proportion of respondents aged 16-34 (37%) than represented in the total sample (32% of the total sample are aged 16-34), and the proportion of older respondents (aged 61+) was lower (16% of those aged 61+ indicated that radio adverts stick in their memory compared to 21% of the total are aged 61+). This suggests that awareness campaigns on independent radio stations and Radio 1 are likely to be more effective than campaigns on Radio 4 and Classic FM, etc.
- 10.3.4 Of those who stated that magazine/newspaper articles stick in their memory, there is a higher proportion of those aged 35-60 (52%) than represented in the total sample (47%) and of those in the higher SEG (27% compared to 22%).
- 10.3.5 Of those who stated that celebrity endorsement campaigns stick in their memory, there is a higher proportion of non bill-payers (29%) than represented in the total sample (13%).

Also, the proportion of younger respondents (16-34) who stated that celebrity endorsement campaigns stick in their memory was higher (48% compared to 32% in total sample) and of older respondents (aged 61+) was lower (5% compared to 21% of total sample).

- 10.3.6 Of respondents who indicated that billboards stick in their memory, there is a higher proportion of non bill-payers (23%), younger respondents (45%) and respondents in the high SEG group (32%) than in the total sample (13% non bill-payers, 32% aged 16-34, 22% high SEG).
- 10.3.7 Respondents who selected *other* for this question, mainly stated that *no* types of adverts stick in their memory (90% who selected *other*). However, leaflets (2%), adverts on vehicles (2%) and the Internet (2%) were also mentioned.
- 10.3.8 44% of respondents indicated that they could not remember seeing information campaigns about any environmental issues. Amongst those who could remember seeing environmental information campaigns, the specific issues covered were:

- Recycling (37%);
- Energy conservation (26%);
- Water conservation (25%);
- Climate change (14%);
- Air pollution (10%); and
- Sustainable transport (8%).

- 10.3.9 Of those respondents who indicated that they remembered water conservation information campaigns, 65% were from water-stretched areas with restrictions, 18% from water-stretched areas without restrictions and 17% in non water-stretched areas.
- 10.3.10 Respondents were asked about the last information campaign regarding environmental issues that they could remember. The most commonly mentioned communication channels were:

- Television (66%);
- Local authority/school/town centre management (8%);
- Leaflets/direct mail (7%);
- Newspaper (6%); and
- Magazine (3%).

- 10.3.11 The most commonly mentioned campaigns were about:

- Recycling (36%);
- Water conservation (23%);
- Energy conservation (23%); and

■ Global warming (13%)

10.3.12 The most commonly mentioned specific campaigns included the use of energy saving bulbs, car fumes causing global warming/climate change and cans recycled into aeroplanes and cars.

10.3.13 The majority of respondents who mentioned water conservation campaigns live in water-stretched areas with restrictions.

10.3.14 The majority of respondents stated that they did not change their behaviour based on the information campaigns, with the majority of respondents (52%) indicating a one or two on a five point scale (from 'not at all' to 'completely').

10.3.15 Those who stated that they had changed their behaviour mainly now:

- Recycle more household waste (24%); and
- Are more aware of the issues/consider the impact of my actions (20%).

10.3.16 The campaigns they identified were mainly either on the television (62%) or via leaflets/direct mail (13%) and were about recycling (41%), conserving water (23%) and global warming (13%).

10.3.17 Respondents who had not previously mentioned water conservation campaigns were asked specifically about water conservation. Of these, only 23% stated that they could remember having seen any using water wisely messages in the media or with their water bills.

10.3.18 There is a higher proportion of respondents in water-stretched areas with restrictions (58% compared to 50% in the total sample) and a lower proportion of those in non water-stretched areas (17% compared to 25% in the total sample) who remember seeing a water efficiency message.

10.3.19 Similarly, the proportion of respondents who are charged for water via a meter that could remember receiving a water efficiency message was higher (35%) than the proportion represented in the survey (27%).

10.3.20 When asked what messages they could remember, many indicated that they could not remember any details. However the main items highlighted by those who could remember included:

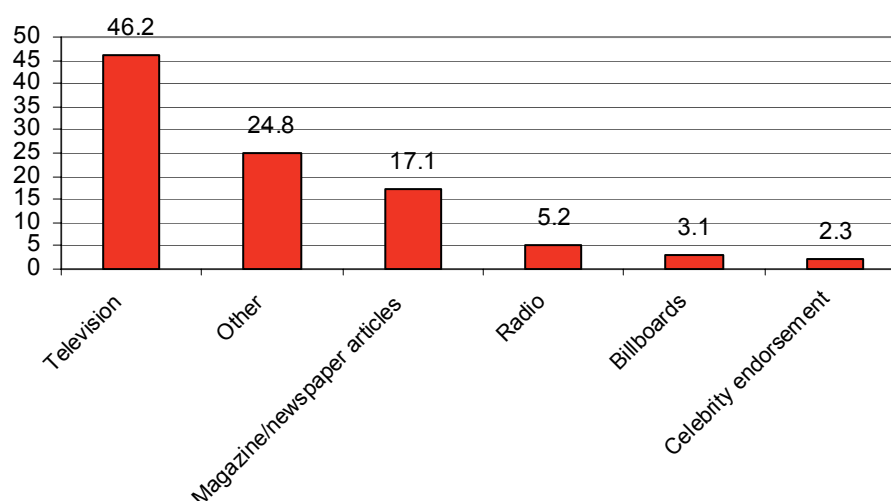
- How much water we waste;
- Received the information with my bill;
- Don't water your plants or wash your car; and
- Hosepipe ban.

10.3.21 Specific messages that respondents remembered included:

- Turn off the taps when cleaning your teeth;
- Re-use your dishwater;
- Using a brick as a toilet cistern displacement device;
- Only filling the kettle with the water you need; and
- Having a shower rather than a bath.

10.3.22 The water conservation messages that respondents reported remembering best were those on television. This is shown in Figure 10.3.

**Figure 10.3 Water message remembered best, did it involve...?**



10.3.23 Other media that respondents identified included:

- Leaflet (37%);
- With the bill (28%);
- On the news (8%); and
- Television documentary (5%).

10.3.24 A higher proportion of respondents in the high SEG group were likely to have stated that they remember seeing the water efficiency message in a magazine/newspaper (29%) than is represented in the total sample (22%).

10.3.25 After seeing the water conservation messages, most respondents reported doing nothing (57%). However, 20% acted on the advice and most are still doing so (94%). In addition, a further 8% stated that they sought ways to use water more efficiently and 4% that they sought more information.

### 10.4 Information

- 10.4.1 Respondents were asked how they would prefer to find out general information about water usage. As can be seen in Table 10.5, more than four in ten would like to find it on the television or in printed leaflets.

**Table 10.5 How would you prefer to receive information? (multiple response)**

Type	Percentage
Printed leaflets	42%
On television	42%
In newspapers	30%
On the Internet	26%
By talking to someone in person	10%
On the radio	10%
In schools or places of education	9%
By talking to someone on the telephone	8%
Other	5%
(Base 2006)	

- 10.4.2 A higher proportion of respondents in the young age group (45%) and high SEG group (36%), and a lower proportion in the older age group (6%) would like to receive information on the Internet than is represented in the total population (26%).
- 10.4.3 There is a higher proportion of respondents in the young age group (44%) and a lower proportion in the older age group (7%), than is represented in the survey (32% and 21% respectively) who indicated that they would like to receive information at schools and places of education.
- 10.4.4 Of those respondents who indicated that they would prefer to receive information in newspapers, 22% read the Daily Mail, 18% The Sun, 13% The Mirror, 10% The Express, 9% The Times, 9% The Telegraph, 5% Independent, 5% The Guardian, 4% The Star, 3% the Metro and 13% *Other* newspapers (mainly local newspapers).
- 10.4.5 The sort of information that people requested on water efficiency included:

- How to conserve water in the home (23%);
- How to save money/details on water bill prices (10%);
- Devices to save water/cost of them/where to get them/how to fit them (8%);
- Information on what the water companies are doing to prevent water loss, collecting more water (e.g. desalination plants) and efficiency figures (6%);

- How much water we use for different activities/how much water different appliances use (6%);
- Everything/general information (4%);
- What you can use recycled water for (2%); and
- Water meters/would they be cheaper/cost of fitting and maintenance/how to get (2%).

10.4.6 Around one in every five respondents (21%) did not know what information they needed. Whilst one in ten respondents (10%) thought they knew everything they needed to know.

10.4.7 The largest proportion of respondents indicated that they would trust their water company to give them advice about water efficiency. However, this is a minority of respondents (39%) so a number of organisations must be involved if information is to be disseminated to all consumers from a trustworthy source. This is shown in Table 10.6.

**Table 10.6 Who would you trust to give you advice about water efficiency? (multiple response)**

Type	Percentage
Water companies	39%
Regulators (Ofwat)	35%
The Government (Defra)	22%
Consumer organisations	17%
Local authority/housing association	14%
Charity/voluntary/environmental groups	11%
Plumbers	10%
Other	8%
(Base 2006)	

10.4.8 Respondents who indicated *other* mainly stated that they would not trust anyone, or that they did not know who to trust. A small number mentioned *Which?* magazine and independent scientists.

10.4.9 A higher proportion of bill-payers indicated that they would trust the Government (e.g. Defra) to give them advice about water conservation than is represented in the total sample (87% of those who indicated that they would trust the Government were bill-payers, compared to 82% of bill-payers in the total sample). In addition, a larger proportion of those aged 16-34 (43%) and a smaller proportion of those aged 61+ (14%) indicated that they would trust the Government to give them advice about water conservation (32% aged 16-34 and 21% 61+ in the total sample).

- 10.4.10 There is a larger proportion of those aged 16-34 (38%) and a smaller proportion of those aged 35-60 (40%) compared to those represented in the survey (32% aged 16-34 and 47% aged 35-60 in the total population) who indicated that they would trust their local authority/housing association.
- 10.4.11 The profile of respondents who indicated that they would trust consumer organisations to give them advice regarding water conservation shows a larger proportion of respondents aged 35-60 (53%) and a smaller proportion aged 16-34 (27%) compared to those represented in the survey (47% aged 35-60 and 32% aged 16-34 in the total sample).
- 10.4.12 There is a higher proportion of those aged 35-60 than is represented in the total sample (53% compared to 47% in the total sample) who indicated that they would trust charity/voluntary/environmental groups.
- 10.4.13 Respondents who had indicated that they would trust consumer or charity organisations were asked if they could name one. In general, respondents were unable to name an organisation; however a small number mentioned Greenpeace, Consumer Council for water, Friends of the Earth, The Consumer Council, Citizen's Advice Bureau and Age Concern.

## 10.5 Influences on water conservation

- 10.5.1 Respondents were asked what would make them more likely to conserve water. Table 10.7 details the results.

**Table 10.7 What would make you more likely to conserve water? (multiple response)**

Type	Percentage
If water companies conserved water	54%
If water-efficient devices were cheaper	53%
If it was easy to get information on how to conserve water	37%
If someone came round to my house to install water-efficient devices	36%
If it was easier to buy water-efficient devices from a local shop	30%
If I was reminded of water efficiency when I was deciding on an appliance	27%
If children were educated about water conservation	27%
If I had a better understanding of the impact on the local environment	24%
If someone talked to me to make it clear that water conservation is important	21%
If I understood and had confidence in a water-efficiency label on a water appliance	17%
Other	5%
(Base 2006) (Multi-choice option)	

- 10.5.2 Respondents were also asked to indicate which two would be most likely to make them conserve water. Table 10.8 shows the percentage of respondents who selected each option as the two items that would be most likely to make them conserve water.

**Table 10.8 Two that would be most likely to make you conserve water**

Type	Percentage
If water companies conserved water	21%
If water-efficient devices were cheaper	20%
If it was easy to get information on how to conserve water	13%
If someone came round to my house to install water-efficient devices	11%
If it was easier to buy water-efficient devices from a local shop	7%
If I was reminded of water efficiency when I was deciding on an appliance	6%
If I had a better understanding of the impact on the local environment	6%
If children were educated about water conservation	6%
If someone talked to me to make it clear that water conservation is important	5%
If I understood and had confidence in a water-efficiency label on a water appliance	3%
Other	1%
(Base 2006)	

- 10.5.3 Other items that respondents identified included: *compulsory water meters, if businesses conserved water; if my bill got higher and if I thought it would make a difference.*
- 10.5.4 The profile of respondents who selected *if it was easier to buy water-efficient devices from a local shop* as one of the two items most likely to make them conserve water, shows a higher proportion of respondents in the 35-60 age group than is represented in the survey (54% compared to 47% in the total sample).
- 10.5.5 The profile of respondents who selected *if I was reminded of water efficiency when I was deciding on an appliance* as one of the two items most likely to make them conserve water, shows a higher proportion of respondents in the high SEG group than is represented in the survey (27% compared to 22% in total sample).
- 10.5.6 The profile of respondents who selected *if I had a better understanding of the impact on the local environment* as one of the two items most likely to make them conserve water, shows a higher proportion of respondents in the 16-34 year age group than is represented in the survey (41% compared to 32%) and less bill-payers (77% compared to 87% in total sample).

- 10.5.7 The profile of respondents who selected *if children were educated about water conservation* as one of the two items most likely to make them conserve water, shows a higher proportion of respondents aged 35-60 (52%) and a lower proportion aged 61+ (17%) than is represented in the survey (47% aged 35-60 and 21% aged 61+).
- 10.5.8 The profile of respondents who selected *if someone talked to me to make it clear that water conservation is important* as one of the two items most likely to make them conserve water, shows a higher proportion of respondents in the 35-60 year age group than is represented in the survey (53% compared to 47% in total sample).



11



# 11 Conclusions and Recommendations

## 11.1 Introduction

- 11.1.1 This chapter summarises the main findings of the survey and makes recommendations regarding how different segments of consumers can be encouraged to use water more wisely.

## 11.2 Awareness of water as a resource

### Awareness of water as a resource

- 11.2.1 The majority of respondents correctly asserted that: the water in their taps comes from rainwater, rivers and lakes; water is not naturally pure so does need treatment; water consumption has increased in recent years; and our drainage system is at least partly to blame when we have flooding.

### Level of environmental concern

- 11.2.2 There was a high level of unprompted concern regarding environmental issues, with nearly one in ten respondents mentioning concerns about water conservation specifically.
- 11.2.3 The majority of respondents claim to undertake certain environmentally aware activities, most commonly switching off lights in an unused room or re-using/recycling plastic bags. Of the list presented to respondents, more people carry out the energy-saving activities than the water-saving activities.
- 11.2.4 Respondents consider water conservation to be relatively important when compared with other environmental issues, with energy conservation, air pollution and climate change considered to be of greater importance than water conservation; and recycling, waste disposal and sustainable transport to be of lower importance.

## 11.3 Behaviour and attitudes in relation to personal water use

### Water shortages

- 11.3.1 58% of respondents in the total sample thought that the water shortage in their area was *not very/not at all serious*. However, there were differences across the water category areas, with 75% of respondents in the water-stretched areas with restrictions stating that the water shortage in their area was *very/quite serious*.

### Cause of water shortages

- 11.3.2 Most respondents think wasteful demand **and** management of supply are jointly to blame for the water shortage (especially those in water-stretched areas who also feel that it hasn't rained enough and climate change and to blame).

### Water conserving behaviour

- 11.3.3 In general, respondents stated that both they themselves, and members of their household, do their bit to save water, with those in water-stretched areas with restrictions more likely to state that they *always* do their bit. However, respondents are less confident about the water saving behaviour of others in their household. It is also in contrast to the majority of respondents believing that one of the causes of the water shortage is (other) people wasting water.
- 11.3.4 Most respondents said that most of the time they undertake activities that reduce the amount of water wasted (e.g. 'turn off the tap when cleaning teeth', 'take a shower rather than a bath', 'only fill the kettle with the water they need').
- 11.3.5 Barriers to water-saving behaviour included: habit, lack of convenience, lack of necessity, and, in the case of collecting rainwater, practical reasons (lack of space etc.).

## 11.4 Behaviour and attitudes to water using appliances

### Use/purchase of water using appliances

- 11.4.1 Most respondents who use a dishwasher, only use it when full. However, this was mainly for energy/cost savings rather than water savings.
- 11.4.2 Of those respondents who had purchased a water using appliance in the last five years, the most common purchases included a washing machine, dishwasher or shower.
- 11.4.3 The main influences on choice of new water using appliance were cost and energy efficiency. Appearance was also important for non-energy using appliances. A minority of people rely on the recommendation of friends/family or salesperson.
- 11.4.4 In order to secure a 10% increase in water efficiency of a new appliance, most people would be willing to accept a 10% drop in dishwasher performance (40%), or pay an extra £40 (39%).
- 11.4.5 The majority of respondents were positive about the effects that an appliance using less water would have, with 40% expecting it to have cheaper running costs and 35% that it would use less energy.

### Perception of water use by activity/appliance

- 11.4.6 There are realistic appreciations of water usage by most appliances, with the exception of dishwashers (considered to be similar to a washing machine when, in fact, the latter typically uses three times more water) and toilets (perceived to use more water than in reality).

### 11.5 Use, and potential for use of water-efficient devices

#### Use of water-efficient devices

- 11.5.1 There was considerable variation in the existing uptake of water-efficient devices, from 10% having a cistern displacement device to 86% of respondents reporting to have a washing-up bowl. However, in general, current uptake was low.

#### Barriers to the uptake of water-efficient devices

- 11.5.2 Lack of information is one of the main barriers to the uptake of water-efficient devices as respondents do not know about the availability, perceived price and performance (e.g. water-saving shower-heads, spray-taps, dual/low flush toilets). Other barriers include cost (e.g. water-efficient washing machines and dishwashers) and the perception that there is no need for some (e.g. washing-up bowl, watering can).
- 11.5.3 The majority of respondents were supportive of small grants towards the purchase of water-efficient appliances.

#### Recycling greywater

- 11.5.4 Respondents show a high level of willingness to use greywater recycled from their own baths, showers and washbasins for garden/flower/vegetable watering, if it was filtered and disinfected.
- 11.5.5 Similar results were obtained in a smaller-scale study of consumers undertaken by MVA and WRc on behalf of the then ODPM in summer 2005<sup>16</sup> where most respondents were happy to use recycled greywater for watering the lawn and flowers, and flushing the toilet (83% and 84% respectively). Respondents in the 2005 study were less willing to recycle water for use on garden vegetables or in the washing machine, and much less willing to use their neighbour's greywater, irrespective of its end-use.

#### Retro-fitting of water-efficient devices

- 11.5.6 Less than one in six homes reported having a retro-fitted WC flushing device. However, two-thirds of respondents indicated that they would be willing to volunteer to have a retro-fitted device in their home fitted free of charge. Barriers to their uptake included perceived interruptions of privacy and dislike of strangers in the home. Those willing to try retro-fitted devices would choose to keep the device if performance was deemed acceptable, and half would be willing to pay to keep it.

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<sup>16</sup> WRc (2005). Reducing water consumption in buildings: Work Package 5. Interim Report 6. ODPM contract CI 71-8-6 (bd2472).

- 11.5.7 Of those respondents who indicated that they would be willing to try a retro-fitted device, the highest proportion would prefer water company staff or an independent plumber to fit the device.

### 11.6 Attitude to water company restrictions and demand management

#### Water companies saving water

- 11.6.1 The majority of respondents felt that water companies do not do enough to save water. The majority of respondents (72%) stated that they would definitely/maybe do more to save water if they perceived that the water companies were doing more to save water.

#### Acceptance and impact of demand management

- 11.6.2 62% of respondents stated that if a drought order came into effect in their area for 12 months that banned all non-essential water use, it would affect their family's quality of life – either *a bit* or *considerably*..
- 11.6.3 At times of water scarcity and on the assumption that their water company is doing all it can to conserve water, the majority of respondents were very willing or fairly willing to accept hosepipe bans (80%) and the compulsory installation of water meters (53%). However, respondents were less willing to accept standpipes and rota cuts (38%), and drought permits that allow water companies to take more water from rivers but which may put more strain on fish and other wildlife (35%).
- 11.6.4 Most respondents are not willing to pay higher bills to avoid demand management strategies. This could be due to their opinion that water companies are partly to blame for water shortages during periods of drought.
- 11.6.5 Respondents were generally unwilling to pay extra on their water bill to avoid water restrictions for the next twelve months. However those that were *very or fairly willing* to pay extra on their water bill to avoid restrictions (approximately 10%), were on average willing to pay between £12 and £20 per annum.

#### Leakage

- 11.6.6 On average, respondents thought that just under one-third of water is lost by water companies through leakage.
- 11.6.7 The vast majority of respondents were of the opinion that water companies should invest in leakage reduction (96%), with 62% stating that this should be only until the cost of leakage reduction is equal to the cost of water lost.
- 11.6.8 The majority of respondents (75%) would not be willing to pay extra on their water bill in order to enable water companies to invest in leakage reduction. However the percentage

willing to pay increased to 40% if they knew that a significant proportion of their company's profits were being invested to reduce leakage.

### 11.7 Metering

#### Attitudes to water consumption

- 11.7.1 Just over half (53%) of respondents who are not charged for water via a meter do concern themselves with how much water they use. However, around one in every three (32%) strongly agreed/agreed that they don't need to worry about how much they use because they are not on a meter.
- 11.7.2 Metered respondents had varied opinions on whether being on a water meter meant they can use however much water they liked. Almost half (46%) stated that they *strongly agreed/agreed that they can use as much water as they liked; whilst a smaller percentage (43%) strongly disagreed/disagreed.*
- 11.7.3 The majority of unmetered respondents stated that their water usage would not reduce if a meter was installed. The main barriers to meter installation were: respondents had not thought about it; they had never been approached or asked to have a meter; and concerns regarding rising bills.
- 11.7.4 However, comparison of attitudes/behaviour amongst metered and unmetered customers revealed a greater inclination amongst the former to undertake water-efficient activities. Nevertheless, the argument for and against compulsory metering hinges on whether metering leads to increased awareness and efficiency, or whether those with a greater inclination to conserve water install a meter.
- 11.7.5 This result highlights a possible adverse effect of metering in that it may lead to less efficient use by many existing unmetered customers, who, currently, do think about their usage but may stop doing so if they think by paying for each unit they can use as much as they like.

#### Fairness of metering

- 11.7.6 When asked what was the fairest way to charge customers for water services, the largest proportion of respondents felt that *customers should be able to choose.*

#### Impact of type and location of meter on consumption

- 11.7.7 Most respondents, metered and unmetered, said that they would be more likely to reduce their water consumption if they had a display in the home that monitored their water usage and if they received information showing their use compared with the average user.

### Attitudes towards price signals

- 11.7.8 There were a range of views regarding support for increasing the unit price of water after a certain amount of water had been used, with 35% being *very/fairly supportive*, and 48% being *very/fairly unsupportive*.
- 11.7.9 Over half of respondents were *very/fairly unsupportive* of increasing the price of water only when there are restrictions in place (55%) and during high demand (55%).

### 11.8 Educational Campaigns

- 11.8.1 Television adverts and messages regarding recycling are those that are recalled most, possibly due to it being high on the agenda of a number of local authorities. However many also recall messages on water conservation, partly on television, through leaflets/direct mail with their bills and in newspapers.
- 11.8.2 The most recalled individual adverts were "*energy saving light bulbs*" and "*cans recycled into cars and aeroplanes*".
- 11.8.3 The most recalled water efficiency messages included: *turn off the tap when cleaning your teeth; re-use dishwater; use a brick as a cistern displacement device; only filling the kettle with the water you need; and having a shower rather than a bath*.
- 11.8.4 Most respondents would prefer to receive information about water conservation either in printed leaflets or on the television (it should be noted however that the study found that the vast majority of respondents could not remember the delivery of an environmental message via a leaflet). However, a significant number felt they were most receptive to messages in newspapers and on the Internet.
- 11.8.5 Although a high percentage of respondents (42%) indicated that they preferred to receive information on water conservation in printed leaflets, given the low level of respondents who remembered the delivery of an environmental message via leaflet/direct mail (7%), the quality of the water efficiency literature or the message it intends to get across will be vital to success.
- 11.8.6 No single organisation is trusted by all respondents to give advice about water efficiency. There is therefore a need to involve more than one organisation when raising awareness and providing information and motivation or else there is the risk of alienating some groups.

### Being more water-efficient in future

11.8.7 Most respondents indicated that they would do more to save water if:

- they thought their water company was doing more (i.e. reducing leakage and/or improving collection and storage of water);
- water-efficient devices were cheaper;
- it was easy to get information on how to conserve water;
- someone came round to their house to install water-efficient devices; and
- it was easier to buy water-efficient devices from a local shop.

### 11.9 Recommendations

11.9.1 Our recommendations based on the key findings from the survey can be split into **psychological** and **physical/facilitating** factors that may aid actual behaviour change regarding water consumption.

#### **Psychological Factors** (“putting people in the right frame of mind to alter their behaviour”)

- For some respondents, especially those in non water-stretched areas, a barrier will be convincing them of the need to save water.
- There is a need to convince the public that water companies are doing all that they can to reduce leakage and/to manage supply. The research indicates that consumers would be more willing to do *their bit* if they thought that the water companies were also.
- For some respondents there is a need to “break *that habit*”. This includes enlightening all members of the household.
- The perception that water-efficient items are also energy and cost-efficient presents a marketing opportunity. This premise needs to be confirmed and, if correct, utilised as a way to encourage consumers to purchase water-efficient items. The use of simple/easy to understand labelling might lead to water-efficient decisions.
- There was evidence to suggest that metering would put some people in the right frame of mind to be efficient with water, through financial savings. But there was also evidence to suggest that metering would put others in the wrong frame of mind allowing them to think that as they pay for it, it is therefore up to them how they use it.

<b>Physical/Facilitating Factors</b>	<b>(“putting people in a position to be able to alter their behaviour”)</b>
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- |   |   |
|---|---|
| ■ | People need information on their own water usage (via in-home displays, comparisons with average bill-payers).  |
| ■ | People need more encouragement and information on water-efficient activities (e.g. turning the tap off when brushing teeth; <u>not</u> filling-up the kettle, re-using washing-up water; installing and using a water butt), especially using day-to-day items like a washing-up bowl and a watering can.   |
| ■ | People need more information on the availability and performance of water-efficient appliances (e.g. spray taps, washing machines, dual flush toilets and water-efficient showerheads).   |
| ■ | People need more encouragement and information on voluntary retro-fit of water-efficient items in the home. It will be important to, first, retro-fit only those items where there is confidence that performance levels are maintained (otherwise people will reject the whole idea of retro-fitting). Ultimately, this may be a cost-neutral exercise for the Government/industry as some people will be willing to pay, retrospectively, for a water-saving device that performs acceptably. |
| ■ | Home owners are willing to fit greywater recycling systems. For most people there is no psychological barrier to using their own recycled greywater. The physical barriers that need to be overcome are lack of information on such systems and finding a plumber who knows how to install it.  |
| ■ | TV articles and magazine/newspaper articles seem to be the most effective means of informing and motivating the public.   |
| ■ | Rented accommodation appears to be a barrier to uptake of water-efficient devices. Consideration should therefore be given to encouraging landlords and housing associations to incorporate water-efficient devices.  |

11.9.2 There is a need to overcome different barriers for different consumer segments:

#### **Younger respondents (16-34 years)**

11.9.3 Younger respondents generally appear to be less aware of water scarcity, and are less likely to perceive a need for water conservation. Initial barriers, therefore, are mainly psychological, with the need to convince young consumers of the need to consider water conservation. In addition to television and newspapers, younger respondents are open to information delivered via the Internet and radio and in schools and places of education.

#### **Older respondents (aged 61+)**

11.9.4 Older respondents are aware of the need for water conservation, and believe that they are already doing their bit to save water. Many are in small households and would expect to save money if they fitted a water meter, however the barriers of 'how to get a meter' and concerns about 'cost of installation/maintenance' are reducing uptake. Increasing the uptake

of water-efficient devices is also an opportunity for this group. However, lack of awareness and knowledge regarding where they can be purchased/how they would be fitted are barriers. Information should mainly be delivered via the television and printed leaflets.

### Low SEG

- 11.9.5 Respondents in the low SEG group are less willing to pay for water-efficient devices. Cost is therefore a key barrier. This may be overcome by focusing on linking water-efficiency with energy and cost savings and providing information on low cost ways of introducing water-efficient devices (e.g. brick in the toilet as a cistern displacement device) or providing grants. Television and printed leaflets are the best form of media.

### High SEG

- 11.9.6 Respondents in the high SEG group:

- showed a higher unprompted concern for the environment;
- are more likely to think there is a need and to demonstrate water-efficient behaviour;
- are more likely to have water-efficient devices and be willing to take part in a retro-fit programme;
- are more willing to pay for a water-efficient appliances;
- are more willing to pay extra to reduce leakage; and
- are more likely to agree with compulsory metering and demand related metered tariffs.

- 11.9.7 Therefore, only physical/facilitating factors are barriers for this group. They require information on how best to conserve water, how to purchase/fit retro-fit devices, and, as they make use of the energy labelling on appliances, aid in selecting water-efficient appliances via easy-to-understand water labelling.

- 11.9.8 In addition, respondents in the high SEG group were more likely to have indicated that they would conserve water if they were reminded of water-efficiency when deciding on an appliance. Point of purchase information is therefore an opportunity for this group. As well as television, respondents in this group are likely to obtain information from magazines/newspapers and the Internet. A higher percentage of respondents in this group read the broadsheets.

### Non water-stretched areas

- 11.9.9 We need to advise residents in non water-stretched areas that there is still a need for people in their areas to be aware of their water consumption. It may be that the public response

will be more sympathetic to a message of a scarce resource world-wide rather than water being scarce in the southeast of the country.

### Water-stretched areas

- 11.9.10 In water-stretched areas, the perception of water companies is the key psychological barrier. Typically, respondents believe that:

*"they [water companies] need to get their act together, I'll only do my bit if they are doing their bit".*

- 11.9.11 Information campaigns should therefore focus on demonstrating what water companies are doing. Once convinced, consumers will be willing to do more so that everyone works together towards water conservation.

# Appendices



## Appendix A – Interview Materials



## **Using Water Wisely Research - Consumer Council for Water (CCWater)**

The Consumer Council for Water (CCWater) represents the interests of customers in the water industry. CCWater operates through nine committees in England and one committee in Wales. CCWater came into operation on 1 October 2005.

### **Purpose of Research**

The objective of the survey is to secure a wider and better understanding of the extent of consumers' knowledge of water resources and their behaviour and attitudes to water use and water efficiency practices. This will be used to inform the development of an educational plan to encourage consumers to think about using water wisely and signpost sources of practical advice to enable them to make informed choices.

Therefore, the survey needs to establish consumer behaviours now and what material, media or other influence consumers would consider in order to change their behaviours in both the short and longer term.

### **Sampling**

The sample includes 2,000 people across England and Wales, including water-stretched/non-water-stretched areas, metered/non-metered homes and rural/urban categories in the following water company areas:

#### Areas with restrictions in place [N=1000]

- 400 Thames Water (Berks, Oxfordshire, Bucks, London, Surrey)
- 400 Southern Water
- 200 Folkestone & Dover Water

#### Water-stretched areas with no ban in place [N=500]

- 300 Anglian Water
- 200 Cambridge Water

#### Non-water-stretched areas [N=500]

- 200 Northumbrian Water
- 300 United Utilities

Quotas are set on demographics based on Census 2001 statistics for each Output Area.

### **Questionnaire**

We wish to ask some initial questions without prompting respondents (and thus influencing their response) that the questionnaire is about water use. It is important therefore that the introduction on the recruitment questionnaire is used and respondents are not told that the questionnaire is about water use.

### **General Attitudes**

The first section of the questionnaire is to determine if respondents are very aware of environmental issues and what they think are the most important issues.

- Q1** Allow the participant to respond unprompted and note any environmental issues they may mention. If the respondent fails to give an environmental issue as an answer at this point, proceed to Question 2.
- Q2** If the respondent has given a relevant answer to Question 1 (i.e. mentioned an environmental issue), then do not ask this question but go to Question 3. If not, then ask this question, prompting the participant with focus on environmental issues relating to water.
- Q3** Present Showcard 1a to the respondent. Ask them to **rank** each of the options shown on the card in order of importance, where 1 indicates 'most important' and 7, 'least important'. So, the item that they think is most important would be assigned the number 1, the next important number 2 and so on until the least important which would be given the number 7. For your next respondent present Showcard 1b, this shows the same items in a different order. Continue to alternate which showcard you show.
- NOTE: *Sustainable Transport* - Describes all forms of transport which are considered to be less damaging to the environment and which contribute less to traffic congestion than one-person car journeys. Includes public transport, walking, cycling and car sharing.
- NOTE: *Climate change* – The climate of the Earth is not static. The term 'climate change' refers to the build-up of man-made gases in the atmosphere that trap the sun's heat, causing changes in weather patterns on a global scale. The term is commonly used interchangeably with 'global warming' and 'the greenhouse effect'.

### ***Water use and the water cycle***

This section is aimed at understanding respondents' knowledge of water use and the water cycle.

- Q4** Present Showcard 2 to the respondent. Read out the statements and ask them to comment on how much they agree or disagree. For each of the items, place a tick in one box only.
- Q5** This question aims to determine whether respondents believe that there is a water shortage in the area they live. Make sure you state – 'where you live'
- Q6** This question aims to determine what respondents believe impact upon water supply. Give respondent Showcard 2 (as for Q4) and read out each item in turn.

### ***Current water saving behaviour***

This section of the questionnaire asks about respondents habits in terms of water use.

- Q7** This question concerns the participant's behaviours in and around the home. Present Showcard 3 to the respondent. Ask them to comment on how often they perform each of the behaviours listed. For each of the seven items, place a tick in one box only.
- Q8series** These questions aim to determine whether respondents are in high-use households and whether they or their families save water. Make sure respondents answer 8b for themselves and 8c regarding others in their household. If respondent lives alone then leave 8c as missing.
- Q9 series** Ask the respondent to comment on how often they perform each of the behaviours listed. For each item, place a tick in one box only. If respondent does not have a shower, garden or a car, then tick Not Applicable for these items. If a respondent indicates that they Always or Sometimes do any of the activities, then ask is this to save water or out of

habit or some other reason. If the respondent states that it is to save water then circle Yes, otherwise circle No.

Write in anything else that the respondent does to save water in Other box. An example would be reducing the number of times the toilet is flushed.

### ***Volume of water used for various activities***

The next question asks respondents to estimate how many litres of water are used for various activities. Please carry an empty litre bottle of water for demonstration purposes.

**Q10** You need to reassure the respondent that we only expect them to estimate the amount of water used for the tasks listed, they should not be too concerned about their accuracy.

### ***Water-efficient devices and barriers to water-efficient behaviour***

This section of the questionnaire covers respondents' views on water efficiency and water-efficient devices.

**Q11a** Ask the respondent to indicate which of the water-efficient devices listed they have in their home. For each of the items, tick one box only.

NOTE: *Water-efficient showerhead* – Water-efficient showerheads use less water than standard showerheads. Power-showers are not classed as water-efficient showerheads.

NOTE: *Dual flush/low flush toilet* – Dual flush toilets have two buttons, one for a short flush (using less water) and one for a long flush. Low flush toilets use less water per flush.

NOTE: *Hippo/Hog-bag/Save-a-flush* – This is an open ended polyethylene box which is placed in the toilet cistern, reducing the amount of water in the cistern and therefore used per flush.

NOTE: *Water butt* – Is a barrel into which rainwater from the roof down-pipe is channelled, where it is saved and stored for general garden use.

**Q11b** Present Showcard 4 to the respondent. Consider the responses given to Question 11a. For all items where the respondent has answered 'no', then ask this question. Tick only one box for each item.

**Q12** Explain to respondents about recycling water (greywater) and then ask if they would consider using recycled water from their household for various activities.

**Q13 series** This question asks respondents to indicate what would make them more likely to conserve water. Present Showcard 5 to the respondent. Ask them to indicate which of the items they feel apply to themselves. Tick all that apply. Then ask them which of those they have selected they think would be the most likely and write the number in the box for question 13b.

This section of the questionnaire focuses on respondents' use and purchase of water-using household appliances.

**Q14 series** Only ask these questions if the respondent has a dishwasher, otherwise go to Question 15a. MAKE SURE THAT ALL RESPONDENTS WHO HAVE A DISHWASHER ANSWER QUESTION 14a. Ask them to select the statement which best reflects their behavior. Tick only one. Ask Question 14b if the respondent has indicated option 1 ('only when it's full') in 14a.

- Q15 series** These questions ask the respondent about the last water-using product they purchased. This can be for the bathroom as well as the kitchen (e.g. shower, bath, toilet, dishwasher, washing machine etc.), but should exclude kettles. Present showcard 6 to respondents for Q15b.
- Q16 series** These questions ask respondents about energy efficiency labels and information on water efficiency.
- Q17a** Give the respondent Showcard 7A and ask them to select one of the three options. If they select Option A, then give them Showcard 7B and ask them Question 17b1, if they select Option B, then give them Showcard 7C and ask them Question 17b2, if they select Option C, then give them Showcard 7D and ask them Question 17b3.
- Q18** This question asks the respondent to indicate what other assumptions they would make about a water-saving appliance. Present Showcard 8 and tick all that apply.

### ***Retro-fitting***

This section of the questionnaire asks respondents about retro-fitting. Retro-fitting is fitting water-efficient devices into standard/non water-efficient appliances/fittings. For example, fitting a device to your toilet cistern to convert it from a single flush to a dual flush.

Firstly read out the explanation on retro-fitting (above).

- Q19** Once you have explained retro-fitting, ask respondents if they have a retro-fitted flushing device on their toilet.
- Q20a** If respondents answer No to this question then ask them why not (Q20b) and then go to the section on metering. If they answer Yes then go to Q20c and continue.
- Q20c** For those respondents who indicated they would be happy to volunteer in Q20a, then ask if they would be willing to pay. Tick one box only.
- Q21 series** Only ask these questions if the respondent had indicated that they would volunteer to have a retro-fitted dual flush. For Q21a and Q21c tick all that apply. For Q21b tick only one.

### ***Metering***

This section is about attitudes to metering and expected behaviour if a respondents' household was metered. Note, you may need to ask if the respondent has a water meter before asking these questions if you cannot remember their response on the recruitment questionnaire.

- Q22** Only ask respondents their views on one of the statements in this question. If they are not metered ask the first question, if they are metered ask the second question. Give the respondent Showcard 9 which contains the Agree/Disagree scale.
- Q23** Tick one box only for this question.
- Q24 series** These questions should only be asked if the respondent is not currently on a water meter. They ask the respondent to think about what would happen to their water use and water bills if they were metered. For Q24b, tick all that apply, for all others tick only one. For Q24d and Q24d, encourage the respondent to answer and record all comments.
- Q25a/b** Ask Q25a if respondent is not currently metered and Q25b if they are currently metered. Present Showcard 10 and tick all that apply.

- Q26** Give respondent Showcard 11. Ask all respondents this question. Make it clear to the respondent that the overall bill level should not change for 'normal' water users.
- Q27** Ask all respondents (for respondents currently not metered, it is a hypothetical question)  
Tick only one

### ***Demand Management***

This section of the questionnaire is about demand management by water companies. Demand management is about managing the amount of water used. It includes reducing the loss of water through broken and leaking pipes, increasing the cost of water and/or banning certain activities to lower demand, installing water conserving equipment to save water and adjusting pressure to reduce water use.

- Q28 series** These questions ask respondents whether they think water companies, businesses and households need to save water and whether water companies do enough to save water and if they did more would it affect their behaviour. Only ask Q28d if respondent has answered 1 or 2 (definitely or maybe) for Q28c, otherwise go to Q29.
- Q29** This is to determine whether or not respondents think that they have water restrictions in their area and not necessarily related to whether you are in a water-stretched area or not.
- Q30** Give respondent Showcard 12. Tick one box for each restriction.
- Q31** This question lists the same items as Q30, but asks respondents to indicate if they are willing to pay to avoid the restrictions. Tick one box for each restriction and then if respondent indicated very or fairly willing then ask them how much and write in the box. The figure should be in pounds for a 12 month period.
- Q32** Write in percentage figure. Reassure respondent that this is not testing them.
- Q33** Give respondent Showcard 13. Tick only one.
- Q34a** Tick one box only. If respondent indicates 1 or 2 (definitely or maybe) then ask Q34b, if not go to Q34c.
- Q34c** Ask all respondents. Tick one box only.

### ***Education/Marketing***

These questions initially ask about any government campaigns and then specifically about water.

Please write as much into the free comment questions as possible. Allow respondents time to answer. If necessary continue on the back of the questionnaire.

- Q35** Give respondents Showcard 14. Tick all that apply
- Q36** Ask respondents which of the environmental issues they have seen campaigns about.
- Q37a** Respondents are asked to focus on any environmental information campaigns they can remember. Encourage them to tell you as much about it as possible, in particular why they can remember it. Ask them about two or three campaigns that they can remember.
- Q37b/c** Ask respondent to indicate on a five-point scale whether the campaign mentioned above changed their behaviour. If they indicate 3, 4 or 5 on the scale, then ask how and write in Q37c.

If a water campaign is mentioned in **Question 37 series**, then there is no need to ask Q38 series.

- Q38 series** If respondent indicates on Q38a that they can remember seeing any water messages in the media then continue, otherwise skip to Q39. For Q38b encourage the respondent to give you as much information as possible. For Q38c give respondent Showcard 14 and tick all that apply. For Q38d give the respondent Showcard 15 and tick all that apply.
- Q39** Ask all respondents. Give respondent Showcard 16. Tick all that apply.
- Q40** Write in as much information as possible (i.e. prompt respondent with what else?)
- Q41a/b** Give respondent Showcard 17 and tick all that apply. If they have indicated that they would trust consumer organisations or charity/voluntary/environmental groups then ask if they can name one.
- Q42** Explain that this question is different to others they've been answering is about a specific water-efficient device. Give respondent Showcard 18 and allow them time to consider their answer.

### ***Profile/Habits***

Questions P1 to P11 ask respondents questions about their habits or circumstances that might affect their water use. For P4 just ask the question and record any hobbies they mention. For P9 examples include: they require home dialysis, have Crohn's disease, ulcerative colitis, abdominal stomas, desquamation (flaky skin loss), weeping skin diseases (eczema, psoriasis, varicose ulceration), and incontinence.

Note: **Power Showers**. As the name suggests, power showers produce a more impressive spray force than either electric or gravity-fed mixer showers. This is because water pressure is boosted by a pump that generates exceptionally powerful flow rates.

# CC Water Survey

## Recruitment Questionnaire

Good morning/afternoon/evening. My name is .....from MVA, an independent research company. We are carrying out some interviews on behalf of consumer representative bodies and central government departments to help understand attitudes to modern-day life and the use of household appliances.

The interview will take approximately 30 minutes, do you have some time available now?  
(If not, ask if you can make an appointment to return)

In order to interview a representative sample of people we are recruiting different ages etc. Would you mind answering a few questions to ensure your suitability?

**Q1 DO YOU WORK FOR A WATER COMPANY, REGULATORY BODY OR CONSUMER ORGANISATION?:**

Yes..... ☐ 1 No..... ☐ 2

IF YES, THEN THANK AND CLOSE

**Q2 HOW OLD ARE YOU ON YOUR NEXT BIRTHDAY?**

(CODE AGE, IF LESS THAN 16 THANK AND CLOSE, CHECK QUOTAS)

- Group 1 – 16-24 ..... ☐ 1  
Group 2 – 25-34 ..... ☐ 2  
Group 3 – 35-44 ..... ☐ 3  
Group 4 - 45-60 ..... ☐ 4  
Group 5 – 61-74 ..... ☐ 5  
Group 6 - 75 + ..... ☐ 6

**Q3 WHAT IS THE OCCUPATION OF THE CHIEF INCOME EARNER IN YOUR HOUSEHOLD?**

(ONLY ASK SUFFICIENT QUESTIONS TO CODE SOCIAL GRADE BELOW, CHECK QUOTAS)

Occupation title:

Position/Rank/Grade and No. of staff Responsible for:

Industry/Type of company:

Qualification/Degrees/Apprenticeships:


(CODE SOCIAL GRADE):

AB ..... ☐ 1 C1..... ☐ 2 C2..... ☐ 3 DE ..... ☐ 4

**Q4 WHICH OF THESE BEST DESCRIBES WHAT YOU DO AT PRESENT?**

- Employed full time, including self employed (30 hours or more) ..... ☐ 1  
Employed part time (less than 30 hours) ..... ☐ 2  
Other (e.g. unemployed, retired, student, homemaker, carer, permanently sick/disabled)..... ☐ 3

**Q5 ARE YOU CURRENTLY CHARGED FOR WATER VIA A WATER METER? (No quotas, just record on quota sheet)**

Yes..... ☐ 1 No..... ☐ 2 Don't know..... ☐ 3

**Q6 ARE YOU RESPONSIBLE FOR PAYING YOUR HOUSEHOLD'S WATER BILLS?**

(RECORD AND CONTINUE, EITHER IS ACCEPTABLE)

- Yes, the bill-payer or spouse/partner (jointly involved in finances) ..... ☐ 1  
Other ..... ☐ 2

**QUOTAS**

<b>Age</b>	<b>SEG</b>	<b>Working Status</b>	<b>Meter (no quotas)</b>
Groups 1&2	Low (C1, C2, DE)	Full-time	Yes
Groups 3&4	High (A/B)	Part-time	No
Groups 5&6		Other	

**(CHECK QUOTAS - IF SUITABLE CONTINUE OTHERWISE THANK AND CLOSE)**

SHOWCARD 1a (Question 3)

(1 = Most Important, 7 = Least Important)

Energy Conservation

Air Pollution

Sustainable transport

Recycling

Waste Disposal

Water Conservation

Climate Change

SHOWCARD 1b (Question 3)

(1 = Most Important, 7 = Least Important)

Climate Change

Water Conservation

Waste Disposal

Recycling

Sustainable transport

Air Pollution

Energy Conservation

## SHOWCARD 2 (Question 4 & 6)

- 1 Strongly agree
- 2 Agree
- 3 Neither /nor
- 4 Disagree
- 5 Strongly disagree
- 6 Don't know

## SHOWCARD 3 (Question 7)

- 1 Always
- 2 Sometimes
- 3 No, never thought about it
- 4 No, and don't want to
- 5 Not applicable

## SHOWCARD 4 (Question 11b)

- 1 No need for them
- 2 Don't know about them
- 3 Don't like their appearance/don't think they perform well enough
- 4 Cost of purchase
- 5 Not applicable
- 6 Other

## SHOWCARD 5 (Question 13a)

- 1 If it was easier to get information on how to conserve water
- 2 If water efficient devices were cheaper
- 3 If it was easier to buy water efficient devices from a local shop
- 4 If water companies conserved water
- 5 If I was reminded of water efficiency when I was deciding on an appliance
- 6 If I had a better understanding of the impact on the local environment
- 7 If children were educated about water conservation
- 8 If someone came round to my house to install water-efficient devices
- 9 If someone talked to me to make it clear that water conservation is important
- 10 If I understood and had confidence in a water-efficiency label on a water appliance
- 11 Other

### SHOWCARD 6 (Question 15b)

- 1 Perceived performance
- 2 Someone else's recommendation
- 3 Cost
- 4 Energy efficiency
- 5 Water efficiency
- 6 Appearance/how it looked
- 7 Other

### SHOWCARD 7A (Question 17a)

- 1 Option A: Water volume and performance as standard, cost £300
- 2 Option B: 10% reduction in water volume, performance as standard, cost £340
- 3 Option C: 10% reduction in both water volume and performance, cost £300

### SHOWCARD 7B (Question 17b1)

- 1 Option A: water volume and performance as standard, cost £300
- 2 Option D: 10% reduction in water volume, performance as standard, cost £320

### SHOWCARD 7C (Question 17b2)

- 1 Option B: 10% reduction in water volume, performance as standard, cost £340
- 2 Option E: 20% reduction in water volume, 5% reduction in performance, £340

### SHOWCARD 7D (Question 17b3)

- 1 Option C: 10% reduction in both water volume and performance, cost £300
- 2 Option F: 20% reduction in water volume, 5% reduction in performance, cost £340

### SHOWCARD 8 (Question 18)

- 1 No
- 2 Yes, it would use less energy
- 3 Yes, it would use more energy
- 4 Yes, it would have cheaper running costs
- 5 Yes, it would have more expensive running costs
- 6 Yes, the performance/experience would be affected

## SHOWCARD 9 (Question 22)

- 1 Strongly agree
- 2 Agree
- 3 Neither /nor
- 4 Disagree
- 5 Strongly disagree
- 6 Don't know

## SHOWCARD 10 (Question 25a & 25b)

- 1 If you received information on your water use over the previous year and comparisons where made with typical water use
- 2 If you could see a display in your kitchen or on your television or computer that showed you how much water you were using by the hour or day

### SHOWCARD 11 (Question 26)

- 1 Increasing the unit price of water after a certain amount of water is used (i.e. higher volume households pay a higher unit rate than low volume households)
- 2 Increasing the price of water only when there are restrictions in place (e.g. hosepipe bans)
- 3 Increasing the price of water during times of high demand to reduce water use (e.g. during the summer months) and decreasing the price during times of low demand
- 4 Small grants towards water appliances that use less water

### SHOWCARD 12 (Question 30 & 31)

- 1 Very willing
- 2 Fairly willing
- 3 Neither/nor
- 4 Fairly unwilling
- 5 Very unwilling

### SHOWCARD 13 (Question 33)

- 1 until leakage levels are practically zero even if it made water bills higher
- 2 only until the cost of leakage reduction is equal to the cost of water lost
- 3 they shouldn't invest at all

### SHOWCARD 14 (Question 35 & 38c)

- 1 Television adverts
- 2 Radio adverts
- 3 Magazine/newspaper articles/adverts
- 4 Celebrity endorsement campaigns
- 5 Billboards
- 6 Other

### SHOWCARD 15 (Question 38d)

- 1 Seek more information
- 2 Seek ways to use water more efficiently
- 3 Act on advice
- 4 Nothing
- 5 Other

### SHOWCARD 16 (Question 40a)

- 1 On the Internet
- 2 In printed leaflets
- 3 In newspapers
- 4 On television
- 5 In schools or educational places
- 6 On the radio
- 7 By talking to someone on the telephone
- 8 By talking to someone in person
- 9 Other

### SHOWCARD 17 (Question 41a)

- 1 The Government (i.e. Defra)
- 2 Regulator (i.e. Ofwat)
- 3 Water companies
- 4 Plumbers/Fitters
- 5 Your local council/housing association
- 6 Consumer organisations (e.g. CCWater)
- 7 Charity/Voluntary/Environmental group
- 8 Other

### SHOWCARD 18 (Question 42)

- 1 I would be happy to use one
- 2 I'd use one, but would be worried about touching the toilet lid
- 3 I'd use one, but not flush the toilet
- 4 Rather than use one, I would try elsewhere

## Appendix B – Weights



### Analysis of total sample

```
COMPUTE wghtover = 0 .  
EXECUTE.
```

```
IF (water_c = 1) wghtover =0.608989.  
IF (water_c = 2) wghtover =1.416987.  
IF (water_c = 3) wghtover =1.368208.
```

```
EXECUTE .
```

```
COMPUTE wghtsamp = 0 .  
EXECUTE .
```

```
COMPUTE wghtsamp = wghtage*wghtseg*wghtemp*wghtmet*wghtover.  
EXECUTE .
```

### Analysis by water category area

\*\*\*age weights\*\*\*

```
COMPUTE wghtage = 0 .  
EXECUTE.
```

```
IF (water_c = 1) and (new_age = 1) wghtage =1.47.  
IF (water_c = 1) and (new_age = 2) wghtage =0.93.  
IF (water_c = 1) and (new_age = 3) wghtage =0.75.  
IF (water_c = 1) and (new_age = 9) wghtage =1.  
IF (water_c = 2) and (new_age = 1) wghtage =1.31.  
IF (water_c = 2) and (new_age = 2) wghtage =1.09.  
IF (water_c = 2) and (new_age = 3) wghtage =0.71.  
IF (water_c = 2) and (new_age = 9) wghtage =1.  
IF (water_c = 3) and (new_age = 1) wghtage =1.61.  
IF (water_c = 3) and (new_age = 2) wghtage =0.91.  
IF (water_c = 3) and (new_age = 3) wghtage =0.79.  
IF (water_c = 3) and (new_age = 9) wghtage =1.
```

```
EXECUTE .
```

\*\*\*SEG weights\*\*\*

```
COMPUTE wghtseg = 0 .  
EXECUTE .
```

```
IF (water_c = 1) and (new_seg = 1) wghtseg =1.06.  
IF (water_c = 1) and (new_seg = 2) wghtseg =0.98.  
IF (water_c = 1) and (new_seg = 9) wghtseg =1.  
IF (water_c = 2) and (new_seg = 1) wghtseg =0.91.  
IF (water_c = 2) and (new_seg = 2) wghtseg =1.03.  
IF (water_c = 2) and (new_seg = 9) wghtseg =1.  
IF (water_c = 3) and (new_seg = 1) wghtseg =0.84.  
IF (water_c = 3) and (new_seg = 2) wghtseg =1.05.  
IF (water_c = 3) and (new_seg = 9) wghtseg =1.
```

```
EXECUTE.
```

\*\*\*Employment weights\*\*\*

```
COMPUTE wghtemp = 0 .
```

EXECUTE.

IF (water\_c = 1) and (s4 = 1) wghtemp =1.20.  
IF (water\_c = 1) and (s4 = 2) wghtemp =0.92.  
IF (water\_c = 1) and (s4 = 3) wghtemp =0.83.  
IF (water\_c = 1) and (s4 = 9) wghtemp =1.  
IF (water\_c = 2) and (s4 = 1) wghtemp =1.22.  
IF (water\_c = 2) and (s4 = 2) wghtemp =1.01.  
IF (water\_c = 2) and (s4 = 3) wghtemp =0.82.  
IF (water\_c = 2) and (s4 = 9) wghtemp =1.  
IF (water\_c = 3) and (s4 = 1) wghtemp =1.06.  
IF (water\_c = 3) and (s4 = 2) wghtemp =1.00.  
IF (water\_c = 3) and (s4 = 3) wghtemp =0.95.  
IF (water\_c = 3) and (s4 = 9) wghtemp =1.

EXECUTE .

\*\*\*Water meter weights\*\*\*

COMPUTE wghtmet = 0 .  
EXECUTE.

IF (water\_c = 1) and (s5 = 1) wghtmet =0.79.  
IF (water\_c = 1) and (s5 = 2) wghtmet =1.10.  
IF (water\_c = 1) and (s5 = 3) wghtmet =1.00.  
IF (water\_c = 2) and (s5 = 1) wghtmet =0.68.  
IF (water\_c = 2) and (s5 = 2) wghtmet =1.39.  
IF (water\_c = 2) and (s5 = 3) wghtmet =1.00.  
IF (water\_c = 3) and (s5 = 1) wghtmet =0.99.  
IF (water\_c = 3) and (s5 = 2) wghtmet =1.00.  
IF (water\_c = 3) and (s5 = 3) wghtmet =1.00.

COMPUTE wghtall = 0 .  
EXECUTE .

COMPUTE wghtall = wghtage\*wghtseg\*wghtemp\*wghtmet.  
EXECUTE .

### **Codes**

Water\_c = 1 (water stretched with ban in place)  
Water\_c = 2 (water stretched without a ban in place)  
Water\_c = 3 (non water stretched area)

New\_age =1 (16-34)  
New\_age =2 (35-60)  
New\_age =3 (61+)  
New\_age =9 (missing)

New\_seg =1 (High)  
New\_seg =2 (Low)  
New\_seg =9 (missing)

S4 =1 (employed full-time)  
S4 =2 (employed part-time)

S4 =3 (Other)  
S4 =9 (missing)

S5 =1 (metered)  
S5 =2 (not metered)  
S5 =3 (don't know)



## Appendix C – Profile of Respondents



**Respondent profile – unweighted data****Water Code**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Water stretched areas with a ban in place	1005	50.1	50.1	50.1
	Water stretched areas without a ban in place	500	24.9	24.9	75.0
	Non-water stretched areas	501	25.0	25.0	100.0
	Total	2006	100.0	100.0	

**WHICH OF THESE BEST DESCRIBES WHAT YOU DO AT PRESENT?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Employed full time, including self employed (30 hours or mor	813	40.5	40.8	40.8
	Employed part time (less than 30 hours)	279	13.9	14.0	54.8
	Other (e.g. unemployed, retired, student, homemaker, carer,	899	44.8	45.2	100.0
	Total	1991	99.3	100.0	
Missing	System	15	.7		
Total		2006	100.0		

**ARE YOU CURRENTLY CHARGED FOR WATER VIA A WATER METER?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	667	33.3	33.3	33.3
	No	1257	62.7	62.7	95.9
	Don't know	82	4.1	4.1	100.0
	Total	2006	100.0	100.0	

**ARE YOU RESPONSIBLE FOR PAYING YOUR HOUSEHOLD'S WATER BILL**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes, the bill-payer or spouse/partner	1761	87.8	88.4	88.4
	Other	230	11.5	11.6	100.0
	Total	1991	99.3	100.0	
Missing	System	15	.7		
Total		2006	100.0		

**Age**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	16-34	442	22.0	22.1	22.1
	35-60	908	45.3	45.3	67.4
	61+	654	32.6	32.6	100.0
	Total	2004	99.9	100.0	
Missing	System	2	.1		
Total		2006	100.0		

**SEG**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High (AB)	477	23.8	23.9	23.9
	Low (C1 C2 DE)	1521	75.8	76.1	100.0
	Total	1998	99.6	100.0	
Missing	System	8	.4		
Total		2006	100.0		

### **Respondent profile – weighted data**

#### **Water Code**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Water stretched areas with a ban in place	621	30.2	30.2	30.2
	Water stretched areas without a ban in place	744	36.2	36.2	66.4
	Non-water stretched areas	691	33.6	33.6	100.0
	Total	2056	100.0	100.0	

#### **WHICH OF THESE BEST DESCRIBES WHAT YOU DO AT PRESENT?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Employed full time, including self employed (30 hours or mor	1033	50.3	50.5	50.5
	Employed part time (less than 30 hours)	299	14.6	14.6	65.2
	Other (e.g. unemployed, retired, student, homemaker, carer,	712	34.6	34.8	100.0
	Total	2045	99.5	100.0	
Missing	System	11	.5		
Total		2056	100.0		

#### **ARE YOU CURRENTLY CHARGED FOR WATER VIA A WATER METER?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	526	25.6	25.6	25.6
	No	1437	69.9	69.9	95.5
	Don't know	93	4.5	4.5	100.0
	Total	2056	100.0	100.0	

### ARE YOU RESPONSIBLE FOR PAYING YOUR HOUSEHOLD'S WATER BILL

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes, the bill-payer or spouse/partner	1776	86.4	87.2	87.2
	Other	260	12.7	12.8	100.0
	Total	2036	99.0	100.0	
Missing	System	20	1.0		
Total		2056	100.0		

### Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	16-34	661	32.1	32.2	32.2
	35-60	955	46.5	46.5	78.6
	61+	439	21.4	21.4	100.0
	Total	2055	100.0	100.0	
Missing	System	1	.0		
Total		2056	100.0		

### SEG

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High (AB)	448	21.8	21.9	21.9
	Low (C1 C2 DE)	1602	77.9	78.1	100.0
	Total	2050	99.7	100.0	
Missing	System	6	.3		
Total		2056	100.0		

## **Respondent profile – by water area (weighted data)**

### **Employment status**

			WHICH OF THESE BEST DESCRIBES WHAT YOU DO AT PRESENT?			Total
			Employed full time, including self employed	Employed part time (less than 30 hours)	Other	
Water Code	Water stretched areas with a ban in place	Count	541	131	337	1009
		% within Water Code	53.6%	13.0%	33.4%	100.0%
	Water stretched areas without a ban in place	Count	278	82	165	525
		% within Water Code	53.0%	15.6%	31.4%	100.0%
	Non-water stretched areas	Count	227	76	200	503
		% within Water Code	45.1%	15.1%	39.8%	100.0%
Total	Count	1046	289	702	2037	
	% within Water Code	51.4%	14.2%	34.5%	100.0%	

### **Are you currently charged for water via a water meter?**

			ARE YOU CURRENTLY CHARGED FOR WATER VIA A WATER METER?			Total
			Yes	No	Don't know	
Water Code	Water stretched areas with a ban in place	Count	233	725	61	1019
		% within Water Code	22.9%	71.1%	6.0%	100.0%
	Water stretched areas without a ban in place	Count	166	328	31	525
		% within Water Code	31.6%	62.5%	5.9%	100.0%
	Non-water stretched areas	Count	109	388	8	505
		% within Water Code	21.6%	76.8%	1.6%	100.0%
Total	Count	508	1441	100	2049	
	% within Water Code	24.8%	70.3%	4.9%	100.0%	

### Are you responsible for paying your household's water bill

			ARE YOU RESPONSIBLE FOR PAYING YOUR HOUSEHOLD'S WATER BIL...		Total
			Yes, the bill-payer or spouse/partner	Other	
Water Code	Water stretched areas with a ban in place	Count	829	188	1017
		% within Water Code	81.5%	18.5%	100.0%
	Water stretched areas without a ban in place	Count	469	54	523
		% within Water Code	89.7%	10.3%	100.0%
	Non-water stretched areas	Count	443	50	493
		% within Water Code	89.9%	10.1%	100.0%
Total	Count	1741	292	2033	
	% within Water Code	85.6%	14.4%	100.0%	

### Age

			Age			Total
			16-34	35-60	61+	
Water Code	Water stretched areas with a ban in place	Count	356	471	191	1018
		% within Water Code	35.0%	46.3%	18.8%	100.0%
	Water stretched areas without a ban in place	Count	164	255	106	525
		% within Water Code	31.2%	48.6%	20.2%	100.0%
	Non-water stretched areas	Count	155	224	126	505
		% within Water Code	30.7%	44.4%	25.0%	100.0%
Total	Count	675	950	423	2048	
	% within Water Code	33.0%	46.4%	20.7%	100.0%	

### SEG

			SEG		Total
			High (AB)	Low (C1 C2 DE)	
Water Code	Water stretched areas with a ban in place	Count	264	751	1015
		% within Water Code	26.0%	74.0%	100.0%
	Water stretched areas without a ban in place	Count	110	415	525
		% within Water Code	21.0%	79.0%	100.0%
	Non-water stretched areas	Count	96	407	503
		% within Water Code	19.1%	80.9%	100.0%
Total	Count	470	1573	2043	
	% within Water Code	23.0%	77.0%	100.0%	



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