

# Towards water neutrality in the Thames Gateway

Public acceptability of water efficiency scenarios  
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Product code: SCHO1107BNMB-E-P

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Steve Killeen

**Head of Science**

# Executive Summary

This report presents the findings from a research project into what residents in the Thames Gateway feel is acceptable to achieve water neutrality.

The Thames Gateway is Europe's largest regeneration project and stretches for 40 miles along the Thames Estuary, from London Docklands to Southend in Essex and Sheerness in Kent. The Thames Gateway Strategic Partnership intends to create conditions for 160,000 homes to be built in the Gateway between 2001 and 2016.

According to the Environment Agency, the Thames Gateway is an area of relatively low rainfall and currently unsustainable levels of water abstraction. The new homes planned for the Gateway, together with an increase in living standards and population growth, will lead to a rise in total demand for water which could have a negative impact on water quality and the wider environment.

Communities and Local Government (CLG), the Department of the Environment, Food and Rural Affairs (Defra) and the Environment Agency are investigating the feasibility of making the Thames Gateway development water neutral. There is debate over what the term 'water neutral' means, but for the purposes of this project it has been agreed that water neutrality will be achieved *if the total water used after new development is equal or less than total water use in the Thames Gateway before the development*.

A number of measures will move the Gateway towards water neutrality:

- building new homes to high standards of water efficiency – this might include the installation of water-efficient taps, shower or dual-flush toilets, as well as recycling grey water or rain harvesting;
- retro-fitting existing homes, by updating and replacing water appliances such as taps and toilets with more water-efficient models;
- more widespread or compulsory metering – domestic use of water decreases when residents are given a water meter and pay for the amount they use;
- education or social marketing can be used to raise awareness of the need to reduce water use, highlighting simple behavioural changes or devices that can help achieve this.

The purpose of this research project is to establish the public acceptability of different scenarios that use a combination of these mechanisms to achieve water neutrality.

## Current attitudes to water consumption

Attitudes to water appear to be evolving. Historically, the majority of participants in this study perceived water to be an abundant resource, and had not felt an impetus to regulate their use of it. This attitude was encouraged by perceptions of the British climate being the 'wettest in Europe' and the fact that, in contrast to other utilities, water is not universally metered. However, publicity around the recent drought of 2004-06 (and previous water shortages and hosepipe bans) had challenged for some the idea of water as an abundant resource, at least in the South East.

Those concerned about water shortages felt that more needed to be done to manage water resources, with stronger leadership from the Government on the issue.

The majority of participants claimed to be aware of their water use, although further probing showed that many were surprised by the volumes of water used in household tasks. Factors

that seemed to raise awareness of water use were the presence of water meters, publicity over the drought of 2004-06, negative feelings towards waste in general and a wider global perspective on how water is valued across the world.

These factors not only raised awareness of the amount of water used, but also encouraged greater water efficiency in the home. Water meters were seen as particularly effective in that they provided people with a financial incentive not to waste water and focused people's minds on how they use water.

Other factors encouraging water efficiency included: persistent reminders from partners or parents (most typically wives, mothers and girlfriends); concern about the environment in general; and action by local councils/water companies to make water efficiency more affordable or convenient.

In contrast, factors that discouraged water efficiency included: people's aspirations in terms of their homes or lifestyle; the presence of teenage children; lack of a sustained media campaign on water efficiency; a perceived lack of financial incentive to act; and a perceived lack of action from the Government or water companies to make new homes more water efficient or reduce leakage.

These results validated the findings of a research project for the Consumer Council for Water (CC Water) completed in 2006.

## Scope for change in attitudes and behaviour

This study found scope for change in how water is perceived. Participants felt that in the next 10 to 20 years, water might be seen as a more scarce resource. They anticipated future water shortages due to increased demand (from rising living standards and immigration). Climate change and failure to tackle leakage were two other named factors that might make the situation worse.

Stimulus material on the regional climate and plans for the Thames Gateway showed there was further potential to change attitudes to water as a resource. Facts about rainfall levels in the region surprised some and encouraged them to focus on the issue. However, a sizeable minority, including those most engaged with the issue of water efficiency, were frustrated that additional housing was being placed in an area recognised as water stressed. For some, this incited a rebellious attitude to the notion of 'doing your bit'.

The majority of participants claimed to have saved water in the tasking phase. However, only a minority (about one in four) felt they had made substantial savings, while about half made minor savings and a quarter did not reduce their water use. Larger savers of water tended to be single-person households and couples with no or young children. Smaller water savers included young couples as well as families with teenage children. Finally, those unable to save water tended to be older people with meters who felt they were already doing all they could to be water efficient.

There was limited evidence of any geographical differences in terms of water savings, although participants from Kent and Essex seemed more engaged initially.

The key factor that helped the participants to become more water efficient was increased awareness of how much water household activities use. This was backed up by persistent reminders to other household members and simple suggestions on where savings could be made, for example, keeping a jug of water in the fridge.

Barriers to change included concerns over the effectiveness of the devices supplied in the tasking phase (both in terms of fitting them and reducing water consumption); how sustainable some of the changes were in the long run; a lack of time; and a failure to persuade teenage children to get on board. These barriers might be negotiated if participants

received more information on how the devices worked, if they concentrated on making one change at a time, or if they used ‘fix and forget’ solutions. The latter would help participants who were ‘time poor’ or could not persuade other household members to change their behaviour.

## Planning for change: responses to water neutrality scenarios

Participants were presented with two possible scenarios to achieve water neutrality. The first, ‘Flush and Go’, focused on technology with a universal retro-fit programme. The second, ‘Water Watch’, sought to change behaviour with education and information campaigns plus compulsory water metering with variable tariffs.

Participants found technological solutions appealing because of their convenience - once in place, people would not have to think about them. This would extend water efficiency to those without the time or inclination to engage. However, a universal retro-fit programme was seen as too interventionist, and participants were also concerned as to who would bear the cost.

Education and information again had strong appeal, although participants argued it would have to be sustained to change attitudes and support householders policing water efficiency in the home. This should be delivered by the Government (and/or local councils) rather than water companies.

Compulsory metering received broad acceptance, both from those on meters and from those who weren’t. Universal metering was felt to be fairer than the current system where a significant proportion of the public were on meters but had no choice in this.

However, participants objected to the idea of variable tariffs. If compulsory meters were adopted householders would pay for what they use, and so variable tariffs were regarded as exploitative. However, many participants were more familiar with the idea of metering than variable tariffs. More discussion of variable tariffs in the media and how they might work might shift attitudes. Indeed, a research report for the Consumer Council for Water<sup>1</sup> suggested there is support for a rising block tariff.

The preferred scenario combines the most publicly acceptable elements of the two scenarios presented to the public. It is not claimed this would deliver water neutrality, but illustrates the type of measures that are most publicly acceptable, including:

- *Social marketing and education* to prime the public on the issue of water efficiency. This should comprise shock tactics on the regional climate and/or water stress, balanced with positive messages of simple steps the public could take to prevent future water shortages.

Campaigns would need to demonstrate that water companies and the Government were working in partnership with the public.

- *Compulsory water meters* were perceived as effective in changing behaviour and raising awareness of water use. However, some vulnerable groups might need to be protected from pressure to reduce water use too far.
- *All new homes built to a high standard*, with the cost passed on to the homeowner.

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<sup>1</sup> Corr Willbourn Research, *Deliberative research into consumer views on fair charging for the Consumer Council of Water*, February 2007

- *Legislation to ban non-water efficient appliances* – many participants expressed surprise at why non-water efficient appliances were still available, and wanted the Government to regulate more actively.
- *Grants and incentives to encourage homeowners to retro-fit* – while compulsory retro-fit was seen as too interventionist and costly, grants could be made available to encourage the public to retro-fit their homes.
- *Widespread distribution of water efficiency packs from the water companies*, to make steps to improve water efficiency convenient, with the most effective devices being distributed free of charge.

In response to educational and top-down measures, the public said they would look to alter their own perceptions of water as a resource, as well as police domestic water use more actively.

# Contents

<b>Executive Summary</b>	<b>iv</b>
<b>1 Research aims and process</b>	<b>1</b>
1.1 Aims	1
1.2 Process	1
1.3 Analysis	4
<b>2 Current attitudes and perceptions</b>	<b>5</b>
2.1 Perceptions of water as a resource	5
2.2 Domestic water use	6
2.3 The Thames Gateway	11
2.4 Customer segmentation	12
<b>3 Scope for change</b>	<b>14</b>
3.1 Perceptions of water as a resource	14
3.2 Scope for change in domestic water use	15
3.3 Scope for change in views of the Gateway	19
3.4 Scope for change to customer segments	21
<b>4 Planning for change</b>	<b>22</b>
4.1 Water neutrality scenarios	22
4.2 Pros and cons of water neutrality scenarios	23
4.3 Preferred solution	26
<b>5 Conclusions and recommendations</b>	<b>29</b>
5.1 Conclusions	29
5.2 Recommendations	32
<b>Appendix A: Recruitment specification and sample</b>	<b>35</b>
<b>Appendix B: Facilitation plans</b>	<b>36</b>
Environment Agency - Thames Gateway water neutrality	36
Water Summit Draft Facilitation Plan	41

# 1 Research aims and process

## 1.1 Aims

The Environment Agency commissioned Ipsos MORI to explore what would be publicly acceptable measures to ensure development of the Thames Gateway between 2005 and 2016 is water neutral<sup>2</sup>. The study aimed to understand which of the available policy options would be the most effective in delivering water neutrality, along with other approaches that might help reduce public water demand.

In order to achieve this goal, the study focused on three areas of inquiry:

**Baseline:** Gauge public attitudes and behaviour towards (current) water consumption in communities in the Thames Gateway region and the factors driving them (for example, household composition or perceptions of water stress).

**Business as usual:** Anticipated attitudes and behaviour towards water consumption looking ahead, both *spontaneous* and *prompted* (in response to information outlining the pressures on water supply in the region, such as climate change or population growth). How, if at all, does information and deliberation shift people away from their baseline attitudes and behaviour towards a more sustainable approach?

**Scenario responses:** Public appeal and feasibility of demand reduction strategies and policy options under pathway scenarios identified by the Environment Agency.

## 1.2 Process

In response to these aims, Ipsos MORI proposed a deliberative research project. The project comprised the following elements:

- **Setup phase and desk research:** This phase reviewed research on attitudes to water and water efficiency. A key project was commissioned by the Consumer Council for Water (CC Water), upon which this study builds. The set-up phase also established the following documents: a recruitment specification (Appendix A), facilitation plans (Appendix B) and stimulus materials for the fieldwork; a polling questionnaire; and a tasking pack.
- **Regional focus groups:** Six two-hour focus groups were held in three locations (Stratford, Chatham and Basildon) across the Thames Gateway. Participants were broadly representative of the region (see Appendix A for recruitment specification and details of participants). The discussion groups explored current attitudes and behaviour towards water as a resource and water efficiency. Stimulus materials were used to explore the scope for change in these attitudes or behaviour.

Stimulus materials included details of domestic water use and where savings could be made, as well as a short presentation outlining the Thames Gateway development and the rationale for moving towards water neutrality. Extracts from these materials are shown below.

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<sup>2</sup> For this project, it was agreed that the Thames Gateway would be water neutral if the total water used after development was equal to or less than total water use before development.

# Save-a-flush or Hippo



B2

Save-a-Flush sachets or Hippos are water saving devices which are put into toilet cisterns. The devices inflate and restrict the amount of water used for each flush.

Figure 1.1: Showcard from discussion group

## Serious Water Stress in the Thames Gateway

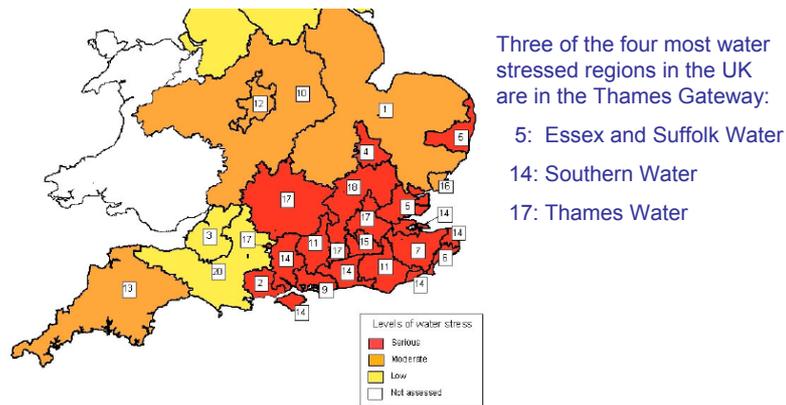


Figure 1.2: Slide from stimulus presentation

- **Tasking phase:** Participants left discussion groups with a task pack. This included an information pack, water-use diary, water-saving devices and a poster:.
- **Information pack:** This was a more detailed version of the slides in the presentation, and was designed to encourage debate and prime participants for further discussion at the water summit.
- **Water diary:** To record household water use for one week. The first half of the week, participants were asked to continue using water as normal. In the second half, they were asked to try different behaviours or devices designed to save water. They were also encouraged to record any thoughts or feelings from doing this experiment.
- **Water-saving devices:** These devices were designed to save water or remind householders to do so and included:
  - a shower timer;
  - a 'save-a-flush' bag for a toilet cistern, to save up to one litre per flush;

- a low-flow shower head;
  - tap aerators to reduce the flow from taps;
  - a fridge magnet reminding householders to save water.
- **Environment Agency poster:** This depicted a house and showed how much water different activities used and how water use could be reduced.

One in three householders completed and returned their diaries in the freepost envelope provided. This response rate was in line with expectations. An extract of one of the diaries is shown below.

**Ipsos MORI** 13

**My water diary**

Please write down on pages 13-14 any feelings you have or observations you make from keeping your water diary?

How easy was it to change your behaviour in the second half of the week? What made it easy or hard to do? Did you notice a reduction in the amount of water you used?

Did you use the water efficiency devices supplied? How easy were they to use? Would you continue to use them?

Did you come up with any water saving ideas of your own?

Are there any further measures you would consider taking?

In general, how, if at all did the week affect your thoughts and habits about water use at home.

Please provide details in the space below:

A very busy week - not much time to really think that much about saving water. However, I did try some of the water saving devices that we were given. The shower timers were the best for me as I did not have a clock in the bathroom and I am sure that I now spend less time in the shower. I tried the tap aerators but felt that they did not really work for me. I just spent longer waiting for the amount of water I needed. This idea may be good for some people that are less aware of the water they use just sit. Some no time to look at shower heads. The save-a-flush bags are easy to install and cause no problems, so if they save water then that's good.

**Have you tried the water calculator at [www.diy.com](http://www.diy.com) or the water calculator at the back of the diary**

**Figure 1.3: Page from diary**

- **Water summit:** Half of the participants who attended the discussion groups were invited back to a four-hour workshop at the Design Museum in London. Those invited back were selected to ensure a representative sample of the Thames Gateway population.

In the first half of the workshop, participants were asked to reflect on the tasking phase and identify from their experiences those measures they felt would be most effective in reducing water use in the Thames Gateway.

In the second half of the workshop, representatives from Communities and Local Government and the Environment Agency presented two possible scenarios for achieving water neutrality in the Thames Gateway. The scenarios are detailed in Section 4.1. Participants were asked to consider the pros and cons of each and arrive at what would be their preferred solution.

- **Polling questionnaire:** Participants completed a questionnaire at the start and end of the discussion groups to capture their attitudes to water as a resource and how best to manage it. Those participants who took part in the water summit also completed the same questionnaire at the start and end of the summit. This allowed Ipsos MORI to track the impact of the deliberative process on participants' attitudes.

## 1.3 Analysis

At both the discussion groups and water summit, note-takers recorded key points from what participants said. This analysis was largely based on these notes. In addition, data from the water diaries and polling questionnaires were reviewed. The polling questionnaires were indicative of participants' feelings on the day; they are not a statistically robust poll of residents in the Thames Gateway.

The project team held three internal debriefs (one following the discussion groups, and two following the water summit) to analyse the findings and develop the conclusions and recommendations for this report.

# 2 Current attitudes and perceptions

## 2.1 Perceptions of water as a resource

The research showed that participants' attitudes to water appeared to be evolving. A sizeable minority seemed to be shifting from a position where water was seen as a cheap and abundant resource, to one where water was seen as more scarce and in need of being managed more effectively.

The majority of participants continued to perceive water as a right as opposed to a commodity. Water was seen as essential to life and it was taken for granted that when you turned the tap on, water would emerge. There was little understanding of how it arrived there.

Again, the majority felt water was a cheap and abundant resource. Many participants believed Britain to be one of the wettest countries in Europe, and this shaped their view of water as an abundant resource (in this country, at least).

A further factor encouraging the view that water was abundant was the lack of universal metering. This set water apart from other utilities such as electricity. Water was seen as relatively cheap compared to other utilities, reinforcing the idea that it was plentiful.

*"I think if it's on a meter it makes a difference, if the phone was free you'd use it differently, and it's the same as if you have a meter."*

18-39, C2DE

However, the water shortages of recent years had challenged some of these perceptions. This was more visible in participants from Kent and Essex than those from London. The former displayed a higher awareness that their region had suffered from water shortages in the recent past (both in group discussions and through the polling questionnaire). However, to some it seemed an anathema to talk about water shortages when the region was surrounded by water.

In the Kent and Essex group, there was more spontaneous discussion of potential solutions to the water situation, indicating that participants had discussed or thought about the issue prior to the meeting.

Some participants looked to supply-side solutions such as new reservoirs, desalination or transporting water from other parts of the country. They also mentioned leakage, although they did not focus on this issue.

Other participants countered or tempered the arguments for these solutions. They did not know where the water would come from to fill new reservoirs, and felt that desalination and water transport would be costly and impractical. These participants placed greater emphasis on demand-side solutions.

Many participants (including those arguing for supply-side solutions) seemed resigned to the fact that compulsory water metering would be introduced to address water shortages in the region. They were sceptical over how much investment would be placed in other demand-side options that might recycle grey water.

*“I think water meters will be imposed upon us, because it will cost too much to put in the correct infrastructure to save all our waste water. It will happen a long time before they start saving all our rain water.”*

60+, ABC1

Across the discussion groups, participants voiced negative feelings about water privatisation and foreign ownership of water companies. They perceived water companies and their owners as serving the interests of shareholders rather than the public. Participants called upon the Government to manage the situation and guard against water shortages.

*“We cannot live without water, so it’s the Government’s job to look after it.”*

60+, ABC1

Participants felt there was a lack of leadership and that too many organisations were involved. While some participants were aware of the Environment Agency, in particular older and more educated people, they had little understanding of its role in managing water resources. Any references to the Environment Agency were in relation to its role in flood risk management.

## 2.2 Domestic water use

### 2.2.1 Awareness of domestic water use

The majority of participants claimed to be aware of the amount of water they used (approximately four out of five according to the polling questionnaire). Awareness cut across different demographics such as gender and social background. However, this did not necessarily mean they were particularly efficient in their water use.

In general, those who were less aware tended to be younger participants. Some of these lived with their parents and did not take ownership of household affairs. Others seemed to be ‘time poor’, balancing a family with full-time work which left them with little time to think about water use.

Participants who claimed to be aware of their water use referred to a number of factors that had prompted or raised their awareness:

- water meters in the home;
- publicity over the recent drought of 2004-06;
- lifelong attitudes to waste;
- a wider global perspective of water issues.

Water meters were critical in raising awareness of water use and were seen as an effective tool for this purpose.

*“I think about it when my boyfriend puts the dishwasher on half full, and I think you could’ve waited a couple of hours. But then I’ve always been on a water meter.”*

18-39, C2DE

The 2004-06 drought, and previous water shortages and hosepipe bans, also had an impact on raising awareness of water use. As already noted, participants in Kent and Essex seemed more conscious of the drought than people from London. This was possibly because they were more likely to have gardens. These participants spoke spontaneously about not being able to water their lawns or put out hanging baskets. These experiences focused their attention on the amount of water they used.

For some participants, awareness of water use was a result of attitudes that had been learnt over a lifetime. This mostly, but not exclusively, related to older participants who had lived through the war and rationing, and were discouraged from a young age against being wasteful of water and other resources. As well as raising awareness of how much water they used, this also encouraged them to be more water efficient. One older man described how he had been in the merchant navy, which had taught him to be mindful of how much water he used.

A less frequently mentioned factor, but important to a few participants, was a wider global perspective on water. These participants noted that other countries suffered water shortfalls and people in these countries valued water differently to Britain. This perspective raised their awareness of how much water they use. One woman commented that her partner was from Zimbabwe, where there were serious problems of water shortages, and this had made her more aware of her own water use. Another woman regularly spent time visiting relatives in Jamaica, where she said the tap was turned off for two hours.

In the discussion groups, participants were generally able to accurately rank devices or behaviours that used most water. Interestingly, many participants believed (incorrectly) that taking a bath would use more or the same water as activities such as washing the car with a hosepipe or watering the lawn with a sprinkler. Participants often expressed surprise at the volume of water used by these and other activities such as brushing your teeth (with the tap running) or taking a power shower.

Not everyone accepted the figures, in particular some older participants. It was recognised that many variables could affect the figures. However, for some participants the information provided to them on the amount of water used in household activities encouraged them to modify their behaviour in the tasking phase.

## **2.2.2 Levels of water efficiency**

Many participants said they did their bit to try and save water. This was particularly emphasised by older participants and those on water meters. Participants described a variety of means through which they saved water in the home, including:

- hippos, save-a-flush bags or bricks placed in the toilet cistern;
- water butts;
- shorter showers;
- dual-flush toilets;
- turning the tap off when brushing their teeth;
- using cooking or washing-up water on the garden;
- changing plants in the garden to drought-resistant varieties;
- checking energy efficiency ratings of products;
- letting the lawn die in the summer;
- washing the car with a bucket (although mostly rinsing this off with a hose).

While many participants were aware of how they could save water, and made efforts to do so, it was recognised that some habits were hard to break. For instance, some participants mentioned they forget to turn off the tap when brushing their teeth or would instinctively flush the toilet, even when not necessary.

Families, especially those in the higher social grades and with teenage children, were less likely to be water efficient. One working mother described herself as extravagant in terms of water use. While she sometimes felt guilty about this, it did not stop her.

*“I don’t wait for a full load. If something needs washing, it needs washing.”*

40-59, C2DE

### 2.2.3 Factors influencing water efficiency

A number of factors emerged in the discussion groups which shaped people’s attitudes to domestic water use and efficiency. These are summarised in Table 2.1.

**Table 2.1: Factors influencing water-efficient behaviour in the home**

Factors that encourage water efficiency	Factors that discourage water efficiency
<ul style="list-style-type: none"> <li>• The presence of water meters and the motivation to reduce cost</li> <li>• Negative attitudes to waste</li> <li>• Reminders from partners or parents</li> <li>• Reaction to the recent drought and media attention</li> <li>• ‘Green’ lifestyle or attitudes</li> <li>• Action by local councils and water companies</li> </ul>	<ul style="list-style-type: none"> <li>• Aspirations in terms of home or lifestyle</li> <li>• Presence of teenage children</li> <li>• Lack of sustained media attention</li> <li>• Lack of financial incentive to act</li> <li>• Perceived lack of action by the Government and water companies</li> </ul>

#### *Reasons for being water efficient*

Many participants with water meters acknowledged it had made the difference in terms of being more water efficient. They had a financial incentive to reduce their water use. They had changed their behaviour or bought simple water saving devices such as hippos or water butts to reduce their water bill.

*“You are more careful on a meter. You know how much it’s costing you, every time you turn the tap on.”*

60+, ABC1

*“We changed to a meter, and now do full loads, and shower instead of wasting water.”*

60+, C2DE

Some participants had inherited water meters when they moved into a new home, while others contacted their water company to have one installed. Older households, typically with a couple or one person, realised it could save them money. Older participants felt that meters were suitable for their situation, not only because of the composition of their household but also because they were more conscious of waste, coming from a generation when water was not 'on tap'. These participants had lived through the rationing of the 1940s and had been taught to guard against waste. However, negative feelings about waste also encouraged younger participants to be more water efficient, in particular mothers.

Indeed, women often found themselves in the role of policing water use. For the most part, they did domestic chores including the washing-up and laundry.

*"I control it. My husband doesn't know how the washing machine works – when the kids were small I would do half loads but now I think twice."*

60+ C2DE

Persistent reminding was a common tactic used by wives and mothers to encourage others in the household to be more efficient and in many cases, this achieved results. When it came to policing children's water use, most parents felt they were able to do so up to the age of about 10, but found it much harder to influence teenagers.

Some participants acknowledged that the drought of 2006 and lack of rainfall in the South East in recent years had changed their behaviour. They had picked up on messages in the media to save water.

*"I've only been worried about it since I've come over from Ireland ... Last year and the year before, there has been a water shortage, and they keep banging this message out, and it's like a subliminal message and you start to take on this role of being more frugal."*

18-39, C2DE

Media discussion of standpipes in the street had kick-started some participants into changing their behaviour, in particular those who could remember the 1970s when these measures were last in place.

A few participants, mostly in their 30s and 40s, embraced water efficiency as part of a wider green lifestyle. One woman had three water butts, a water-saving gel in the garden and kept a glass of water to brush her teeth with (as did her nine-year old daughter). She led a green lifestyle, but wanted to do more.

*"My home was built in 1905 and I would love to swap it for an eco home. I like the idea of using water from the washing machine to flush the toilet."*

40-59, ABC1

Finally, a number of participants spoke of action by both local council and water companies to encourage water efficiency. One man had bought a water butt because his local council had been offering them cheap, while others said they used hippos as they had received one free through the post.

## *Reasons for not being water efficient*

A key factor preventing participants from being more water efficient was aspirations and comfort in terms of lifestyle and home. These participants had become accustomed to labour-saving devices such as dishwashers and were unwilling to relinquish them.

*“Nothing would stop me using my dishwasher.”*

60+, ABC1

Similarly, participants with power showers enjoyed the experience and were not prepared to compromise on comfort.

*“I’ve tried both [electric and power shower] and there is so much difference, the power shower is great.”*

18-39, C2DE

Domestic aspirations had also led some participants to ignore last year’s drought restrictions. One man described how he had broken the hosepipe ban because he wanted his garden to look good for his child’s christening. As far as he was concerned he paid his water bill and was entitled to use as much water as he wished. This was a common justification used by more water-prolific participants.

Other participants made trade-offs in terms of their water behaviour. One older man had continued to water his garden during the hosepipe ban because he lived by himself and so used less water than many households.

The presence of older children and teenagers in the home meant some homes were not as water efficient as they could be. Some parents said it was easier to educate and influence younger children, whereas teenagers showed little interest in being water efficient and in some cases abandoned good practices they had been taught.

*“At the age of seven you can manipulate them. But all of a sudden they’re leaving the tap on. Now and again I remind them. ‘Oi, turn it off.’”*

40-59, ABC1

The publicity around the 2004-06 drought raised awareness of domestic water use for some participants, and encouraged greater water efficiency. However, the absence of a sustained media campaign, coupled with messages that the drought was over, meant some participants no longer felt any impetus to continue to be water efficient. They had beaten the drought and did not see a long-term goal for water efficiency.

For some participants, in particular those from middle-class backgrounds, there was no financial motivation to be more water efficient. Water was seen as relatively cheap and so there was no impetus to save water and reduce bills. This weighed against what was seen as a significant outlay for installing a water-efficient bathroom. One business manager felt the Government could do more to offer incentives.

*“From a business and personal point of view I’m looking for tax breaks. If there were incentives for installing eco-friendly toilets, I would use them.”*

18-39, ABC1

The Government was also criticised for not doing more to ensure new homes were built to a higher standard. To some extent, this was an example of participants passing the buck. Several did not have the time or inclination to engage with the issue and felt it could be tackled through regulation of the house-building industry.

Finally, water companies were criticised for not doing more to address leakage, although feelings were not as strong on this issue as had been expected.

## 2.3 The Thames Gateway

In the discussion groups, participants were asked where they came from. Participants identified with particular towns, local authorities or counties. None identified with the Thames Gateway, and some even actively dismissed it.

*“We are not in the Thames Gateway, that’s a political idea.”*

60+, ABC1

There were indications of a geographical split in terms of awareness of the Thames Gateway. This split was between participants in East London, who had a very low awareness of the Gateway, and those in Kent and Essex, where it was higher.

The few participants in East London who had heard of Thames Gateway had a very basic understanding of its geography and the regeneration plans for the region. The most common perception was that it was something to do with the Thames Barrier. London participants were largely aware of the regeneration taking place on their doorstep as part of the Olympics, but did not associate this with the Thames Gateway.

The majority of participants in Kent and Essex were aware of the Thames Gateway. They referred to its geography, the Olympics, the planned increase in house building and job creation.

Attitudes to the Thames Gateway were mixed. Participants of working age were generally positive about job creation and economic prosperity, in particular younger participants. However, increases in the volume of housing attracted negative comments from many participants in Kent and Essex.

For some, this was linked to negative attitudes about increased migration into their areas, in particular of East Europeans. Concern was also raised that proposed plans for house building in the region would result in towns merging into one and the formation of concrete jungles.

This is not to say that participants were not positive about the idea of regeneration or recognised the need for it. Participants in Basildon, in particular, described the town as a dump and having been neglected. However, it was felt the focus of regeneration should be on improving existing areas rather than adding to them.

Participants also spontaneously raised concerns over the impact that the extra housing would place on water supplies.

*“The amount of building work the Government have commissioned and they haven’t got enough water to support it.”*

18-39, C2DE

*“I don’t understand why they are building more housing when we have water shortages.”*

40-59, ABC1

A further concern was voiced by a minority as to where houses would be built.

*“Another thing is that there will be so much flooding, cos we would have to build over so much land, there will be nowhere for the water to run off.”*

60+, ABC1

All of these factors in combination – concrete jungles, water stress and flood risk – meant there was a prevailing negative feeling towards building new homes in the Thames Gateway. However, it was accepted that many areas needed to be revitalised and would benefit from new jobs.

## 2.4 Customer segmentation

In 2006, CC Water commissioned some deliberative research to gain an overview of consumers’ awareness, attitude and behaviour towards water. Customers were segmented in terms of their propensity to engage with water efficiency. This was achieved through analysis of psychographic variables such as personality, lifestyle, values and attitudes.

The two key determinants in this segmentation were people’s *willingness* to take action, and their *ability* to do so. This created four segments:

- willing and able;
- unwilling but able;
- willing but unable;
- unwilling and unable.

The research findings from the current project validated this segmentation, and many of the key factors in these segments. However, some refinements were made with respect to our sample. The refined segmentation is shown below (Figure 2.1).

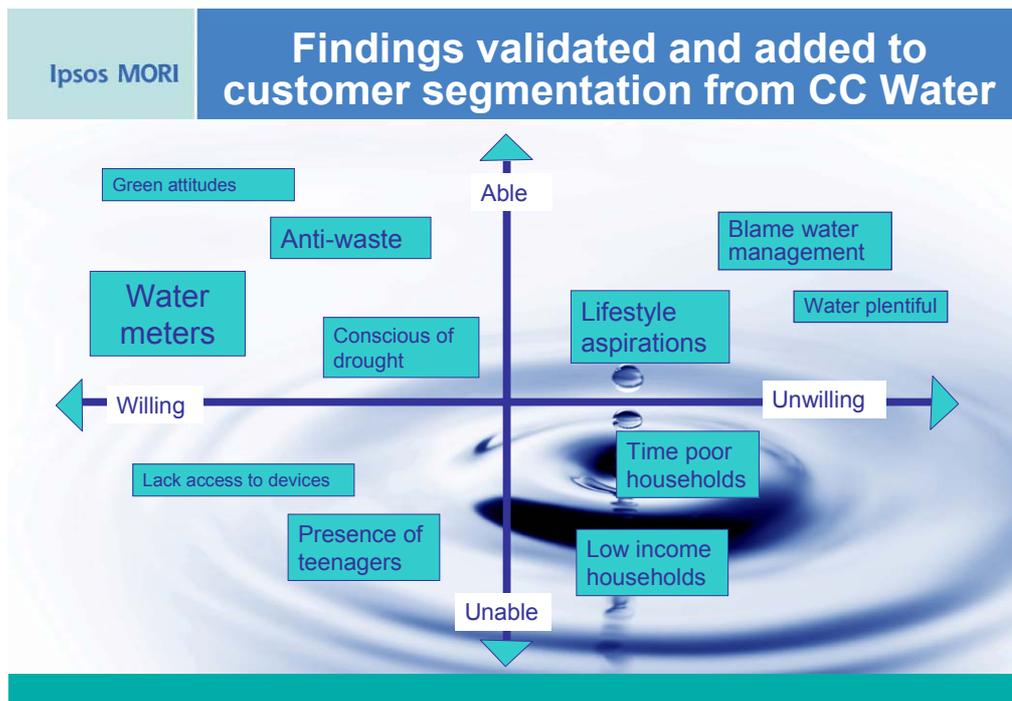


Figure 2.1: Segmentation adapted for this study

Further details of the segments are given below.

- *Willing and able* - Many of the participants in this segment had water meters and thus increased awareness of their water use and a financial incentive to engage. Others were not motivated by cost, but negative feelings about waste or positive feelings about the environment. One factor not identified in the CC Water research was an awareness of water stress (primarily in connection with drought) which motivated some participants here.

Like the CC Water research, we found that many participants in this segment were older people who had the resources, time and inclination to act.

- *Able but unwilling* - Participants in this segment had the resources and knowledge to take action, but frequently did not. They were reluctant to engage with the issue either because they expected to be able to live a certain way or because they simply did not accept there was a water shortfall. Either way, they frequently shifted blame for the situation on to the water companies and the Government in terms of a perceived failure to manage water resources through supply-side solutions, reducing leakage or ensuring new homes were built to high standards of water efficiency.

Once again, like the CC Water research we found that many participants in this segment were in the mid-life stage in terms of age.

- *Willing but unable* - Participants in this segment were open to taking responsibility, but were unable to due to circumstances such as the presence of teenage children whose water use they were unable to police. Other participants lacked information on what they could do or awareness of the water they used.
- *Unwilling and unable* - Those who were unwilling and unable were often 'time poor'. This could be for a variety of reasons but included family commitments. Some on low incomes, in particular larger families, felt they did not have the resources to be water efficient and were fearful they would be penalised under meters.

# 3 Scope for change

## 3.1 Perceptions of water as a resource

In the discussion groups, moderators showed participants a short presentation on the Thames Gateway. The presentation introduced the idea of water neutrality and the rationale behind the policy.

Before the presentation, participants were asked to spontaneously describe how the region might change in the next 10 or 20 years. Future water resources were a key concern for some participants, although this should be set against the fact that they had previously been discussing their attitudes to water as a resource and their own water consumption. Participants felt the region would suffer from more frequent water shortages and water would be perceived as increasingly scarce. The key reason behind this was increased demand, but participants also spoke about climate change and failures to tackle leakage.

The increase in demand was strongly linked to immigration to the area, and to a lesser extent raised expectations in terms of people's homes (for example, more bathrooms and power showers).

*“As a society we're becoming more affluent. There are lots and lots of properties going up. As a generation we're putting more demand on the system.”*

18-39, ABC1

A few participants also felt climate change would result in a higher number of droughts putting pressure on water resources. They anticipated that people would have to adapt by using drought-resistant plants, and that increasingly there would be fewer green spaces, with gardens being paved over.

For many participants in Kent and Essex, the presentation raised existing concerns about water stress. Participants debated supply-side versus demand-side solutions.

Many younger participants expressed shock and surprise at some of the facts in the presentation in terms of rainfall, in particular comparisons made with Syria and Sudan. This seemed to encourage them to reassess their opinion of water as an abundant resource.

*“You have made it more of a concern than it was when I came through the door, how you should save water, and the thing that caught me was the Sudan and Syria, it's shocking!”*

18-39, ABC1

The polling questionnaire also showed that participants reassessed their perception of water as a resource. One in ten participants changed their opinion during the discussion group as to whether their region currently suffers from water shortages, which made it the majority opinion. Fear of future shortages also increased, with three out of five saying they were very concerned at the end of the discussion compared to two out of five at the start.

## 3.2 Scope for change in domestic water use

### 3.2.1 Initial responses from discussion groups

Participants in the discussion groups were prompted with a number of measures (appliances and behaviour changes) that could save water. Reaction to these devices was largely positive, and the subsequent discussion persuaded some participants that it was easier than they thought to save water.

The polling questionnaire showed that three out of five participants felt it would be very or fairly easy to reduce the amount of water they used in the home before the discussion group started. This increased to four out of five at the end of the group.

Key factors that seemed to dictate participants' reactions to these devices were effectiveness, convenience and cost. All participants were concerned that the devices should be effective, but convenience was a greater priority for younger participants with families and busy lives. A case in point is the 'water green'.

Older participants were enthused about the 'water green', a siphon that allows householders to recycle bath water. Some felt it was reasonably priced at £20, but others felt the water companies should provide it free of charge or at a discounted price of £5. However, the water green drew a less favourable response from many younger participants with families who said it sounded like too much hassle.

Those with families were more impressed with devices such as the water crystals or hippo as they required little effort to use but could result in relatively large savings over time. However, others (including those who currently had them installed) expressed concern over how effective they might be, fearing they might have to flush twice.

The water meter was seen by many as critical in encouraging greater water efficiency. However, some participants felt its impact would be limited in larger families, in particular those with teenage children. One woman commented that her son had two teenage boys and both he and the boys played a lot of sport. They would shower first thing when coming home and the washing machine was always on.

Greater awareness of how much water different behaviours or appliances used was seen as an important factor in encouraging people to reduce their water use. For instance, many participants expressed surprise at how much water washing the car with a hose used in comparison to a bucket.

*"It's changed my view, seeing how much water the hose used."*

18-39, ABC1

### 3.2.2 Responses from tasking phase

As noted above, participants seem to come away from the groups with a more optimistic attitude as to how easy it is to save water in the home. However, this optimism appeared to have ebbed away at the start of the water summit, back to what it was at the start of the discussion group. There was no apparent explanation for this in terms of the participants' demographics or their household composition. Interestingly, optimism rose again at the end of the water summit.

Despite this ebb and flow in optimism about how easy it is to save water, the feedback from the tasking phase was largely positive as to scope for change in reducing domestic water use. The majority of participants found they had saved water in the experiment. Seventeen of the 22 participants who returned their diaries had made some sort of saving.

A crude analysis of the diaries showed that average consumption per person per day fell from 150 litres per person per day to 100 litres per person per day. A saving of 50 litres or about five buckets of water!

However, the reader should bear in mind this was not a scientific experiment. The diary included a water calculator to help participants estimate their savings, but the extent to which these estimates could be verified was limited. Nevertheless, the conclusion from the diaries (and feedback at the summit) was that there is scope for people to use less water.

Analysis of the diaries and feedback from the summit showed that the sample broke down into three groups: those who were not able to reduce their water use; those who felt they had made relatively small savings; and those who felt they had made larger savings. Those who were unable to save water represented about a quarter of participants, small water savers half the sample and large water savers about a quarter. Further details of the groups are outlined below.

### *Unable to reduce water use*

This group represented a minority of the sample (about a quarter). Participants were mostly older participants, often with water meters, who were already conscious about their water use and doing all they could.

*“Since installing a water meter five months ago I have been very conscious of water usage and cannot reduce anymore.”*

60+, ABC1

These participants did not achieve savings through the water efficiency devices included in the task pack. This was because they already had them in place, the devices could not be used with their fixtures or they found them to be ineffective.

*“The showerhead just meant that we couldn’t actually stand under it because the water wasn’t powerful enough to reach us in the bath where the shower is positioned.”*

40-59, ABC1

### *Small water savers*

This group seemed to constitute about half the sample. Again, it included many older participants but also younger couples and some families with teenage children. In general, these participants were aware of how much water they used, sometimes through meters, and felt there was little more they could do to save water.

*“We use water economically. For example, brushing our teeth and not letting the water run. Making sure there is a full load in the washing machine. We are conscious of the water we use because we have a meter.”*

18-39, C2DE

However, despite being conscious of the amount of water they used and being water efficient, these participants identified small ways in which they could reduce their use. These included:

- steaming vegetables in the microwave;
- cooking rice by absorption;
- using a bowl for washing-up;
- flushing the toilet less often;
- using the shower timer included in the pack;
- using the save-a-flush bag in the toilet cistern.

Some, but not all, participants found the shower timers and/or the save-a-flush bag to be helpful in reducing water use. Tap aerators were not a success, either because they could not be installed or because people felt they ended up using the same amount of water anyway. The shower head also proved unpopular. Some participants could not fix it to their shower, while others found it was not effective.

*“The showerhead was a no no. It took twice as long and had no power. Forget it.”*

18-39, ABC1

Some participants were willing and able to make substantial changes to the amount of water they used. However, their efforts were undermined by teenage children.

*“My daughters have no respect for the amount of water used. .... I have turned into a miserable frustrated mother trying to get the message across to them.”*

18-39, ABC1

*“Only the wife was sympathetic. The kids were like ‘you pay for it so what’s the point?’”*

18-39, ABC1

### ***Larger water savers***

Larger water savers tended to be single-person households, or couples with no or young children (aged under 10). Single people and childless couples had more time to think and act on the issue, while it was easier for parents with young children to police their behaviour than those with teenagers. The following were found to work:

- greater awareness;
- washing fruit and vegetables in a bowl;
- using a steamer for vegetables;
- using a bowl for washing-up;
- using the devices in the task pack.

Many participants in this group said the experiment had opened their eyes in terms of how much water they wasted, even some who had previously thought of themselves as conscious of their water use. Heightened awareness led these participants to change their behaviour.

*“I didn’t realise just how much water you wasted rinsing fruit and veg. In the second week I used a bowl of water.”*

18-39, ABC1

There was also strong uptake by participants of many of the devices included in the task pack. In part, this was because they found them easy to install and compatible with their water fittings, but also because other members of their household were enthused. The shower timers in particular proved popular with parents of younger children.

*“The shower timer is a great success with the kids and educating tool for saving water. I will continue to use the toilet bag and timer.”*

18-39, C2DE

Heightened awareness of the issue had encouraged some participants to become advocates for water efficiency in their homes and communities. The knowledge they had acquired in terms of what different activities used had empowered them.

*“I didn’t realise how much water it took washing a car, and I’ve nagged my Dad and he’s changed what he does.”*

18-39, C2DE

*“I was in the cinema this week, and someone was making me a coffee and left the water running. I watched him for a while, but then I told him and he switched it off. I would never have said anything before.”*

18-39, C2DE

### 3.2.3 Barriers to change

The water diaries and water summit identified a number of barriers to change in terms of domestic water use, some of which were identified in Sections 5.1.1 and 5.1.2. These barriers and ways in which they might be negotiated are discussed below.

- **Doing all I can** – As already noted, some participants felt they were doing all they could, at least in terms of changing their behaviour. Participants that fell into this groups were frequently older participants on water meters but not exclusively so, as this diary entry shows:

*“As a family in the South East with last year’s shortage still in our minds, I think we already have a water-saving system in place.”*

40-59, ABC1

However, some participants felt they could make further savings through retrofitting.

- **Concerns over effectiveness of devices** – Many participants said the low-flow showerheads or tap aerators were not suitable for their appliances. Some participants who did fix them were sceptical as to whether they saved water, as it took them longer to shower or run the water they required.

*“I found the showerhead pretty useless. It took twice as long to have a decent shower.”*

60+, ABC1

This barrier might be negotiated through further information on the benefits of the devices.

- **Changes were not sustainable** – Some participants expressed concern over whether they would maintain changed behaviours in the long term, such as not flushing tissues down the toilet or washing-up more often instead of using the dishwasher.

*“Remembering to change is difficult. It’s a process to get used to, in order to change old routines.”*

40-59, C2DE

Participants felt they would be more likely to incorporate behaviour changes into their routine if they concentrated on just making one change at a time.

- **Time pressure and busy lifestyle** – Lack of time proved to be a barrier for some participants in terms of engaging with water efficiency.

*“I am a water abuser. I’ve got five kids. ... I’m not frightened of change, I just didn’t have the time.”*

40-59, C2DE

These participants were unlikely to change their behaviour, but some did make use of the save-a-flush bag as it required little effort to install.

- **Teenage children** – Participants with teenage children frequently complained of the difficulties in getting them on board, and some also felt they undermined their efforts by spending longer in the shower or leaving taps running.

*“If you’re looking after younger kids you have a lot more control over the time they spend in the shower. With teenagers, forget it”.*

18-39, C2DE

It was felt this barrier could not be easily overcome, but again’ fix and forget’ solutions would be of assistance. There was also discussion of the need to support parents via education in schools and public information campaigns.

### 3.3 Scope for change in views of the Gateway

Participants were surprised by the scale of the Thames Gateway development, as outlined in the discussion group presentation. The potential impact on the economy in particular surprised and impressed some participants.

However, the scale of the house-building programme prompted negative attitudes from participants. Those in Essex and Kent in particular expressed concern over the potential impact of additional housing on the environment.

*“Is the whole of the UK gonna be like Legoland? No greenery, just blocks everywhere.”*

18-39, C2DE

A sizeable minority of participants were left baffled and indeed angered as to why significant numbers of new homes were being built in areas that the authorities recognised as being water stressed. This created a backlash from a few participants who were most proactive in being water efficient.

*“It makes me angry. They’re building homes and making the problem worse.”*

40-59, ABC1

For other participants, who admitted they were extravagant water users, the stimulus material seemed to give them a get-out clause.

*“It makes you rebellious. What’s the point in me doing my bit?”*

40-59, ABC1

The presentations in the discussion groups introduced the idea of water neutrality. Participants were broadly supportive of better management of water resources, and to this end water neutrality was seen as a desirable goal. However, they were sceptical as to whether it could be achieved.

*“If you are going to try and make something water neutral you are going to have to get current house hold usage down which I think will be a problem, I haven’t seen any drive or anything.”*

18-39, C2DE

*“It’s written by an academic with his head in the sand.”*

60+, ABC1

Resentment was also expressed at the fact that water neutrality put the onus on the public to reduce their water use. In order for the public to accept greater water efficiency, the Government and water companies would need to be seen to be taking action as well.

*“It has to be a partnership, a two-way street.”*

40-59, ABC1

*“It’s everyone’s responsibility, the individual but also the Government and the water company.”*

18-39, C2DE

Participants did consider how the situation might be resolved, but looked to the Government to take action. Some of the ideas discussed included putting water-efficient devices in new homes as standard, compulsory metering, incentives for people to adopt water-efficient devices and wider distribution of these devices.

*“They need to make sure new houses have green devices as standard, and everyone is on water meters.”*

40-59, ABC1

*“It’s like the energy-saving light bulbs they give out, if they can do that, they can do it with the hippo bag.”*

18-39, C2DE

There was further discussion of solutions to water neutrality at the water summit. This deliberation seemed to encourage some to feel this was an achievable goal.

*“I think it could be achieved. I went away from the other meeting quite depressed. Having seen all these things that could be done though, I feel a lot better.”*

40-59, ABC1

### 3.4 Scope for change to customer segments

Section 3.4 outlines a psychographic segmentation. One aim of this research was to explore the potential for participants to move across segments. Reactions to the tasking phase and the stimulus material on the Thames Gateway highlighted the potential for changes. These are detailed below.

- *Willing and able* – This group was engaged with the issue of water efficiency and remained so. For many, the research process reinforced attitudes they already held and encouraged them to take further steps, or to become advocates of water efficiency in their communities. However, some participants were demotivated by the scale of the Thames Gateway development, and felt this undermined their efforts. This needs to be considered in communications.
- *Unwilling but able* – The stimulus material and discussions helped to shift some participants in this group towards the ‘willing and able’ segment. It raised their awareness of the value of water and its scarcity. While they still looked to a response from water companies and the Government, participants acknowledged they also had a role to play. The recent drought had encouraged some participants to engage with the issue and possibly move them from ‘unwilling but able’ to ‘willing and able’. Others might also shift if climate change resulted in more frequent droughts, but were not convinced as yet.
- *Willing but unable* – Information on how much water household tasks use and how water could be saved empowered some within this group to make changes to their water use. This moved them into the ‘willing and able’ group. Some parents with teenage children were motivated by the stimulus material and discussion, but their efforts were frustrated by their families.
- *Unwilling and unable* – There was no discernible shift amongst the majority of participants in this group. Some on low incomes seemed unable to get past strong feelings that they should not be penalised for using a vital resource, and their fear of having a metered supply. Some water efficiency devices could help people in this group to make savings, but not necessarily engage with the issue.

# 4 Planning for change

This section discusses the public reaction to two scenarios designed to achieve water neutrality. An outline of their preferred scenario is given, along with the terms and conditions placed on it.

## 4.1 Water neutrality scenarios

In order to encourage debate, the two scenarios presented to the public at the water summit emphasised different policy options. The first scenario, 'Flush and Go', focused on technology while the second, 'Water Watch', relied on different mechanisms to stimulate behaviour change.

### 4.1.1 Flush and Go

The 'Flush and Go' scenario included the following:

- Mandatory retro-fitting of existing homes in the Thames Gateway. Ninety percent of homes would have dual or low-flush toilets and spray taps.
- Building all new homes to be as water efficient as possible, with two supply pipes, one for drinking water and another for rain/grey water for toilets.
- Less domestic water use at work, achieved through more efficient appliances, retro-fitting and rainwater use.
- Compulsory water meters, so residents and businesses would pay for what they use.

### 4.1.2 Water Watch

The 'Water Watch' scenario included the following:

- Education and information to encourage uptake of water-efficient devices and behavioural change.
- Some new homes would be made very water efficient, with two supply pipes for drinking water and rain/grey water. Others would be less water efficient but include water-efficient taps, toilets and showers.
- There would be a more limited retro-fit programme, with 40 per cent of homes fitted with dual/low-flush toilets and spray taps.
- Compulsory water metering with variable tariffs, so residents and businesses would pay for what they use. The tariffs outlined to participants at the summit were a seasonal tariff and a rising block tariff. A seasonal tariff would mean water would cost more per unit in the summer when resources are at their most scarce. A rising block tariff would mean that households would pay progressively more per unit of water. Due to time constraints, it was not made clear that overall revenue to water companies would remain the same and so individual bills could decrease as well as increase under variable tariffs.

## 4.2 Pros and cons of water neutrality scenarios

### 4.2.1 'Flush and Go'

#### *Advantages*

The key advantage of the 'Flush and Go' scenario was that it not did require the public to change their behaviour. The retro-fit programme would extend water efficiency to sectors of the population who might not otherwise be willing or able to engage with the issue. There was relatively little objection to the retro-fit appliances themselves, provided they were effective.

Participants were broadly in favour of making all new homes as water efficient as possible. The idea of two separate water supplies was a popular one, allowing grey/rain water to be used on the garden or for flushing the toilet. However, some participants, in particular older women, had some concerns about the hygiene of using grey water in the toilet.

*"The only thing [problem] could be using grey water in the toilet water. Otherwise there's no argument."*

Some participants advocated the fairness of the 'Flush and Go' scenario. They approved of the fact that, where practical, all existing homes would be retro-fitted, all new homes would be built to a high standard and water meters would be made compulsory. Together these measures would create a level playing field, and the onus would not simply be on those who were more water conscious. However, others objected to the mandatory retro-fit programme as noted below.

#### *Disadvantages*

Principle objections to the 'Flush and Go' scenario were that it would be too interventionist and large sections of the public would be unwilling/unable to pay for it.

A mandatory retro-fit programme was seen by some as being too interventionist and unlikely to gain acceptability. Participants were uncomfortable with the idea of enforced changes to their homes, which they had invested time and effort in.

*"People's homes are their castles. They're resistant to enforced change in their own homes."*

18-39, ABC1

Some participants expressed concern as to whether new appliances would match the colour and style of their existing fittings.

The issue of cost was perceived by many as a negative in terms of the 'Flush and Go' scenario. Participants were anxious about being hit with the cost and whether this would adversely impact those on low incomes or in older houses (which were perceived as more difficult to retro-fit).

*"In old homes the cost of retro-fit is the big issue. Why should I as a homeowner have to pay?"*

18-39, ABC1

It was felt that the issue of cost could be negated to some extent if the Government or water companies offered incentives or grants to install water-efficient devices. Comparisons were made to British Gas which helps with the cost of changing boilers, or provide grants for home improvements such as loft insulation.

A lesser concern was the possible disruption to people's lives that retro-fitting might cause, in particular families with young children or babies. However, others took the view that the disruption would be minimal, limited to a day at the most, and this was felt to be acceptable.

#### 4.2.2 'Water Watch'

##### *Advantages*

Participants were very positive about the idea of increased education and information.

Education and inclusion of water efficiency in the school curriculum (at primary and secondary level) was perceived as a positive way of encouraging future generations to value water differently. This would also lend support to parents having to remind their children.

*"Education is the best place to start, because you're rearing for the future."*

40-59, ABC1

A number observed how the information they had received in the research process had changed their own position.

*"Before I came on this programme I never thought about it or worried about water."*

18-39, ABC1

Participants spoke of the need to make information campaigns effective. These had to include simple ways in which people could make changes in their lives. The delivery of the message was also important. There was agreement that people were more likely to accept messages from the Government (sometimes at a more local level) than from water companies.

A number of participants took the view that 'Water Watch' was more achievable than 'Flush and Go'. They felt the mandatory retro-fit programme would be logistically difficult to organise and implement and that the associated costs would make the 'Flush and Go' more expensive.

As with the 'Flush and Go' scenario, participants were positive about the idea of compulsory water meters. These offered a financial incentive for people to reduce water use, and would raise consciousness of how much water was used.

*"It's only [because of] the fact that I've got a water meter that I worry. If I didn't have I wouldn't care. It's the only way it's going to happen."*

18-39, C2DE

Metering would also create a more level playing field, as it was recognised that some people had water meters imposed on them by virtue of moving into a home where one

was already installed. However, compulsory metering coupled with variable tariffs received a negative reaction as explained below.

### *Disadvantages*

While participants were enthusiastic about education and information campaigns, they felt these needed to be sustained over a period of time to change attitudes.

Participants expressed surprise that not all new homes would be made as water efficient as possible. It was felt the cost of doing this would not be substantial compared to the cost of a new home and could be passed on to the buyer.

The principle objection to this scenario was the use of variable tariffs. Many participants felt it would be unfair if they had to pay more in summer for their water under a seasonal tariff. As far as they were concerned, compulsory metering would mean they would already be paying for what they used. In this context, seasonal tariffs were seen by many as a way of exploiting the public. Parallels were also made with other utilities which they did not believe varied.

*“It’s not fair if water costs more in the summer as you’re paying for what you use. Gas and electricity are not more expensive in winter.”*

18-39, C2DE

However, a minority of participants felt seasonal tariffs were an excellent idea and a very effective way of managing demand at times when water is at its most scarce.

An objection to rising block tariffs came from some participants on low incomes with larger families who felt they would be exploited, as the level at which the tariff was applied would not take into account household composition. In contrast, it was felt that such tariffs might not influence middle-class participants who could afford them without thinking.

These objections possibly represent a knee-jerk reaction to an unfamiliar idea. This was in contrast to water meters, where many participants had experience and knowledge of these (either being on a meter or knowing someone with one). Time restrictions at the water summit did not allow for more detailed exploration.

The Consumer Council for Water also conducted research on the public acceptability of variable tariffs. Their findings are somewhat mixed. A research project reported in November 2006 that people were generally unsupportive of the use of variable tariffs such as tariffs related to peak/off-peak demand, rising block tariffs and higher prices when restrictions are in place<sup>3</sup>. A later research project<sup>4</sup> which explored charging options in more depth found some support for the rising block tariff, although not seasonal tariffs. A rising block tariff was perceived as a way in which bills could be reduced, by use of a first free/low-cost block. To this end, the description of the rising block tariff sounds different to that put to participants in the Thames Gateway research. The description in the Thames Gateway research was of a standard meter charge, but with higher blocks for profligate water users. Thus, public acceptability of a rising block tariff may vary depending on how the tariff is structured.

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<sup>3</sup> Consumer Council for Water, *Using water wisely – Report of consumer findings and recommendations for action*, November 2006.

<sup>4</sup> Corr Willbourn Research, *Deliberative research into consumer views on fair charging for the Consumer Council of Water*, February 2007.

## 4.3 Preferred solution

### 4.3.1 Outline of solution

As outlined in the previous section, both scenarios had elements that the majority of participants supported, and elements they felt would be unacceptable. From their deliberation a third scenario emerged which had very broad, if not universal, support. It is not, however, claimed that this third scenario would achieve water neutrality.

The scenario comprised the most popular elements of the two presented to participants, but with a number of terms and conditions. In essence, the scenario was based on social marketing/education to prime the public, before introducing a number of top-down measures. The preferred solution is outlined below.

#### *Priming people with social marketing/education*

Education campaigns were felt to be essential in raising public awareness of the need to be water efficient. The public needed to be made aware that water efficiency is a long-term goal and not a knee-jerk reaction to the occasional dry summer. Perceptions, or more correctly, misperceptions of the regional climate needed to be challenged and the consequences of not taking action explained. Consequences would include the region suffering more frequent water shortages, and more draconian measures put in place.

*“Education has got to be the cornerstone of it because otherwise you can put all these things in place, but without changing attitudes it won’t work.”*

18-39, ABC1

While participants felt shock tactics were necessary to raise awareness, they felt this should be balanced with positive messages on simple steps that the public could take to safeguard supplies. It was felt important to empower the public by highlighting how much water household tasks use and what the alternatives are.

*“People need to feel ownership so that they’re part of the solution rather they feel they are being told to control the situation.”*

18-39, C2DE

However, throughout the study it was argued strongly that the public could not take sole responsibility for the solution and that it had to be a partnership between the public, water companies and the Government. Any education campaign would need to highlight what action the authorities were taking to reduce leakage, make new homes more water efficient and help existing homeowners become more efficient.

#### *Acceptance of top-down measures*

Participants were accepting of a number of top-down measures from Government to address water efficiency, especially the introduction of compulsory water metering, which was felt to provide an incentive for many to reduce their water wastage and raise awareness of water use.

However, it was felt that vulnerable groups should be protected from cutting their water use too far. Some participants expressed concern that larger families on low incomes might be pushed into being less hygienic. They might require water-relief in the same way older people receive payments to help them with fuel bills.

Participants expressed anxiety that once compulsory metering was introduced, water firms might raise costs to protect profits. They argued for regulation to prevent this.

In addition, the majority of participants did not wish compulsory metering to be accompanied by variable tariffs. As noted in Section 4.2.2, they were felt to be unfair as people would already be paying for the water they use. However, the concept of tariffs was relatively new for participants. With more discussion and a clearer explanation of tariff schemes being revenue neutral, it is conceivable they would be more acceptable over time. Work for CC Water shows support for a rising block tariff<sup>5</sup>.

Participants wanted the Government to ensure all new homes would be built to a high standard of water efficiency. This would include dual-flush toilets, spray taps, energy-efficient devices and use of grey water to flush toilets or water the garden. This was felt to be an easy win in terms of improved water efficiency. The cost could be passed on to new homeowners, as this would not add greatly to the cost of a new home.

It could be argued that this was the public shifting the buck to new homeowners. However, participants included owners of new builds who expressed surprise that their homes did not have water-efficient devices other than possibly a dual-flush toilet.

In a similar vein, there was support for legislation restricting the types of devices that could be installed.

*“You’ve got to ask yourself why it’s possible to buy toilets without a dual flush. If the Government are serious about it then why don’t they ban it?”*

40-59, ABC1

Comparisons were made with recent legislation on energy-efficient bulbs, which received support from participants. However, they did not support imposed retro-fitting, instead favouring market regulation. When people changed their bathroom or kitchen, they would only be able to buy water-efficient appliances.

While the majority of participants argued against compulsory retro-fitting, it was strongly felt grants and incentives should be made available to encourage households and businesses to retro-fit their homes and buildings.

The final suggested top-down measure was universal distribution of packs with simple water devices that could be introduced in the home. Participants did not want the cost of the packs to be passed on to customers and felt that water companies should invest in these from the profits they make.

### ***Bottom-up measures***

Participants also outlined a number of bottom-up measures towards water neutrality that they would be more prepared to undertake.

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<sup>5</sup> Corr Willbourn Research, *Deliberative Research into Consumer Views on fair charging for the Consumer Council of Water*, February 2007

This included 'nagging' and 'policing' of water use in the home. However, participants, particularly parents of teenagers, wanted the education/social marketing campaigns in place to support them in this.

Participants also spoke about changing the perception of water as compulsory meters were introduced, with an education campaign explaining the challenges facing the region in terms of securing future water supplies

*"We don't have unlimited use of gas and electric do we, so why water?"*

18-39, C2DE

### **4.3.2 Criteria used for selecting this solution**

Participants were motivated by cost, convenience and fairness in selecting their preferred solution. They were searching for a solution which would minimise the cost to households in moving towards water neutrality, and be convenient, for instance, by sending packs to households or building new homes to be as efficient as possible.

A sense of fairness also seemed to motivate participants. Compulsory water meters were favoured as a more equitable situation than the current one where a significant minority are on meters, but cannot chose to have them removed.

# 5 Conclusions and recommendations

## 5.1 Conclusions

### 5.1.1 Conclusions from the deliberative research

#### *Current attitudes and behaviour towards water consumption*

This research showed that attitudes to water appear to be evolving. Historically, the majority of participants perceived water to be an abundant resource, and had no impetus to regulate their use of it. This attitude was encouraged by perceptions of the British climate being the 'wettest in Europe' and the fact that, in contrast to other utilities, water is not universally metered. However, publicity around the recent drought of 2004-06 (and previous water shortages and hosepipe bans) had challenged for some the idea of water being an abundant resource, at least in the South East.

Those concerned about water shortages felt that more needed to be done to manage water resources, and looked for stronger leadership from the Government on the issue.

The majority of participants claimed to be aware of their water use, although further probing showed many were surprised by the volume of water used in household tasks. Factors that raised awareness of water use were the presence of water meters, publicity over the drought of 2004-06, negative feelings towards waste in general and a wider global perspective on how water is valued across the world.

These factors also encouraged greater water efficiency in the home. Water meters were seen as particularly effective in providing people with a financial incentive not to waste water and focusing their minds on how they used it.

Other factors that encouraged water efficiency included: persistent reminders from partners or parents (typically wives, mothers and girlfriends); concern about the environment in general; and action by local councils/water companies to make water efficiency more affordable or convenient.

In contrast, factors that discouraged water efficiency included: people's aspirations in their homes or lifestyle; the presence of teenage children; lack of a sustained media campaign on water efficiency; lack of financial incentive to act; and a lack of perceived action from the Government or water companies to make new homes more water efficient or reduce leakage.

These factors validated the findings of the research project for CC Water completed in 2006.

### *Scope for change in attitudes and behaviour in water consumption*

The research identified scope for change in how water is perceived. Participants felt that in the next 10 to 20 years, water might be seen as a more scarce resource. They anticipated future water shortages due to increased demand (from rising living standards and immigration). Climate change and failure to tackle leakage were seen as other factors that might make the situation worse.

The stimulus material on regional climate and plans for the Thames Gateway showed further potential to change attitudes to water as a resource. Facts about the level of rainfall in the region surprised some and encouraged them to focus on the issue. However, a sizeable minority, including those most engaged in water efficiency, were frustrated at the fact that additional housing was being placed in an area recognised as being water stressed. For some, this incited a rebellious attitude to the notion of 'doing your bit'.

The majority of participants claimed to have saved water in the tasking phase. However, only a minority (one in four) felt they had made substantial savings, while half made minor savings and a quarter did not reduce their water use. Larger savers of water tended to be single-person households, and couples with no or younger children. Smaller water savers included many young couples as well as families with teenage children. Finally, those unable to save water tended to be older people with meters who felt they were already doing all they could to be water efficient.

There was limited evidence of any geographical differences in water savings, although participants from Kent and Essex seemed more engaged initially.

The key factor that helped the participants to become more water efficient was increased awareness of how much water household activities use. This was backed up by persistent reminding of other household members and simple suggestions on where savings could be made.

Barriers to change included concerns over the effectiveness of devices supplied in the tasking phase (both in terms of fitting them and reducing water use); how sustainable some of the changes were in the long run; a lack of time; and a failure to persuade teenage children. These barriers might be negotiated if participants received more information on how devices worked, if they concentrated on making one change at a time, or if they used 'fix and forget' solutions. The latter would help participants who were 'time poor' or could not persuade other household members to change their behaviour.

### *Planning for change: responses to water neutrality scenarios*

Participants were presented with two scenarios to achieve water neutrality. The first, 'Flush and Go', focused on technology with a universal retro-fit programme. The second, 'Water Watch', sought to change behaviour with education and information campaigns plus compulsory water metering with tariffs.

Participants found technological solutions appealing due to their convenience, where once in place, people would not have to think about them. This would extend water efficiency to those who did not have the time or inclination to engage. However a universal retro-fit programme was seen as too interventionist, and participants were also concerned as to who would bear the cost.

Education and information again had strong appeal, although participants argued it would have to be sustained to change attitudes and support householders policing water

efficiency in the home. This should be delivered by the Government (and/or local councils) rather than water companies.

Compulsory water metering received broad acceptance, both from those who were on meters and those who weren't. It was felt to be more fair than the current system where a significant proportion of the public are on meters but have no choice in this.

However, participants objected to the idea of variable tariffs. If compulsory meters were adopted householders would pay for what they use, and so variable tariffs were regarded as exploitative. However, many participants were more familiar with the idea of metering than tariffs. If there was more discussion of variable tariffs in the media, how they might work and who the likely winners and losers would be, attitudes might shift. Indeed, a research report for the Consumer Council for Water<sup>6</sup> suggests there is support for a rising block tariff.

### 5.1.2 Conclusions in the wider context

As already noted, CC Water commissioned research in 2006 to understand how consumers use water and what would motivate them to improve their water efficiency. In advance of our study, we reviewed previous research on consumer behaviour and attitudes to water use in the home. Conclusions from this project are validated by a number of key points that emerged from the literature review, detailed below:

- consumers with water meters are generally more aware of their water use, and of ways to save water, than unmetered customers;
- older people are less likely to waste water than younger people;
- consumers generally have positive attitudes to simple retro-fit devices;
- most consumers (around two-thirds of those surveyed in a MORI poll for the Greater London Assembly) support a statement to the effect that households should be metered.

In addition, the findings from the Thames Gateway project validated the customer segmentation presented in CC Water's research.

### 5.1.3 Limitations of research

- As with any piece of qualitative research, this project is based on a relatively small but broadly representative sample of the Thames Gateway. The project was not designed to quantify attitudes and behaviour towards water but to understand what they are, why they are held and what the scope is for change. In addition, while our sample was broadly representative of the present Thames Gateway population, we were not able to include people who would consider moving into the Thames Gateway in future.
- Claims people make on saving water and what they would be prepared to do should be treated with caution. The polling questionnaire showed that the discussion groups raised participants' optimism of what they could or would be prepared to do, but this ebbed away by the start of the summit, only to increase

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<sup>6</sup> Corr Willbourn Research, *Deliberative research into consumer views on fair charging for the Consumer Council of Water*, February 2007

again by the end of the day. This said, there seemed to be clear indications from the diaries that savings were made.

- It was not possible for participants to directly experience how a retro-fit programme might work. The devices provided were all self-fit, while the measures considered under the water neutrality study would likely require a plumber to visit the house. This might have advantages in that the plumber could ensure devices were correctly installed and explain how they work. However, there might also be negatives in terms of the time and inconvenience of a plumber coming into the home.
- Due to time restrictions, the tasking phase was limited to a few weeks, offering only a snapshot of behaviour change. It is not clear how behaviour might change over a longer period of time and whether water savings would tail off. However, this point was picked up by a minority of participants who spoke of the need for reminders and questioned how sustainable some changes to their lifestyle might be. In contrast, the acceptability of some measures might increase over time as people got used to a measure.

## 5.2 Recommendations

### 5.2.1 Preferred scenario

The preferred scenario which received broad support combined the most publicly acceptable elements of the two scenarios presented to the public.

#### *Social marketing and education to prime the public on water efficiency*

The public needs to understand why water efficiency, in the context of wider water resource management issues is a long-term goal and not a short-term response to the occasional severe drought. This requires some shock tactics on regional climate and/or water stress. However, this should be balanced with positive messages on simple steps the public can take to guard against future water shortages and more draconian restrictions.

Campaigns would also need to emphasise measures taken by the Government and water companies to ensure new homes were more water efficient, help residents of existing homes to improve their efficiency and reduce the volume of leakage. The drive towards a more water-efficient society should be a partnership between the public, the Government and water companies.

#### *Top-down measures from Government/water companies*

Participants were broadly supportive of the following top-down measures, albeit with some terms and conditions attached:

- *Compulsory water meters* – Meters were perceived as effective in changing behaviour and raising awareness of water use. A compulsory system was seen as more fair than the current half-way house. However, some vulnerable groups may need to be protected from reducing water use too far.

- *All new homes built to a high standard* – Participants wanted new homes built to a high standard. This could include dual-flush toilets, spray taps and grey water for toilets and the garden. People felt the cost would not be significant compared to that of a new home and could be passed on to the homeowner.
- *Legislation to ban non-water efficient appliances* – Many participants expressed surprise that non-water efficient appliances were still available, and wanted the Government to regulate the market more actively.
- *Grants and incentives to encourage homeowners to retro-fit* – While compulsory retro-fit was seen as too interventionist and costly, grants could be made available to encourage the public to retro-fit their homes.
- *Widespread distribution of water efficiency packs from water companies* - Water efficiency should be convenient, with devices offered free of charge.

In response to these measures, participants said they would look to alter their own perceptions of water, as well as police domestic water use more actively.

## 5.2.2 Implications for communication of research findings

Communications play a key role in persuading the public to engage in water efficiency. The following recommendations emerged with regards to communication.

- Use shock tactics to raise awareness that the South East is water stressed, but balance this with a positive message that there are simple steps we can all take to waste less water. It needs to be emphasized that collectively, households can have a measurable impact as witnessed in the public's response to the 2006 'beat the drought' campaign.
- Water neutrality, as defined in this project, needs to be carefully communicated if it is to receive buy-in. Water neutrality is a difficult concept to sell to residents as it is tied up in the development of the Gateway. The scale of the development was de-motivating to some of those most willing and able to engage in water efficiency. Water neutrality was seen as a worthy aim, but there was a lack of trust/belief that such an aim could be delivered by Government. It is important to emphasise the need to reduce waste rather than reducing water use; this sounds less interventionist than reducing use.
- Refer to the challenge facing the South East in terms of its climate and/or increased demand from lifestyle changes, as opposed to increased demand from large-scale house building in the Thames Gateway. Again, references to the Thames Gateway development could incite a backlash from those most engaged in water efficiency and provide a get-out clause for those less engaged.
- Emphasise that all parties are working towards reducing wastage to safeguard future supplies. Communication needs to build a sense of working in partnership to be accepted by many of those able but unwilling to change.

*"In our fast-moving hectic lifestyles I don't think people tend to think much about saving water until they are reminded by adverts or their families. I agree we need to do more to look at saving water to not only save our way of living and environment, but also to save money. I think this is a three-way plan. It's not just the responsibility of householders, but also the water companies and the*

*Government. ... If we all do our bit I think we should be OK."*  
40-59, ABC1

# Appendix A: Recruitment specification and sample

The table below shows the target specification in terms of key recruitment criteria, and the number of participants that attended the discussion groups and water summit within each of the criteria.

The percentages for the discussion groups and water summit are broadly in line with the recruitment specification. There were a higher proportion of water meter users in the discussion groups (50%) compared to the recruitment specification (35%), but this was reduced at the water summit (43%).

	Target agreed on recruitment specification	Discussion group participants	Water summit participants
No. of participants	60	60	28
Location			
London (Stratford)	20 (33%)	21 (33%)	9 (32%)
Essex (Basildon)	20 (33%)	20 (33%)	10 (36%)
Kent (Chatham)	20 (33%)	19 (33%)	9 (32%)
Gender			
Male	30 (50%)	26 (43%)	13 (46%)
Female	30 (50%)	34 (57%)	15 (54%)
Age			
18-39	20 (33%)	21 (35%)	10 (36%)
40-59	20 (33%)	19 (32%)	10 (36%)
60+	20 (33%)	20 (33%)	8 (29%)
Social grade			
ABC1	30 (50%)	29 (48%)	16 (57%)
C2DE	30 (50%)	31 (52%)	12 (43%)
Presence of water meter in home			
Meter	21 (35%)	30 (50%)	12 (43%)
No meter	39 (65%)	30 (50%)	16 (57%)
Engagement with water efficiency			
I always do my bit to save water	30 (50%)	28 (47%)	11 (39%)
I sometimes/ never do my bit to save water	30 (50%)	32 (53%)	17 (61%)

# Appendix B: Facilitation plans

## Environment Agency - Thames Gateway water neutrality

### Regional group discussions: Facilitation plan

#### *Summary of regional group discussions*

6 x 2 hour groups, two on each of three nights (starting at 6.15 pm and 8.30 pm). Each comprises *circa* eight participants (recruiting 10 for eight). Three regional centres: Kent, Essex, London (precise locations to be agreed)

#### *Objectives and coverage*

- Gauge baseline (spontaneous) attitudes and behaviours towards domestic water use. To understand what hooks to use in any future communications, as well as attractors/barriers to the adoption of efficiency measures.
- Understand spontaneous perceptions of the Thames Gateway region, and both the severity and causes of any water stresses.
- Explore the expectations of the public looking ahead (business as usual). This will help us identify the scale of the challenge in persuading the public to adopt water efficiency measures.
- Introduce them to stimulus material outlining the scale and nature of the water shortage issue in the Gateway region, both now and projected forward to 2016 and beyond.
- Explore the effect of this information on perceptions and priorities and prepare participants for further deliberation at tasking and summit phases.

Timing	Coverage	Materials
10mins	<p><b>1. Welcome and introductions</b></p> <p>Welcome participants. Introduce team; outline nature of project; explain confidentiality, housekeeping, and reassure about the “rules” of the event (no right or wrong answers etc).</p> <p>Quick personal introductions: first name; how long lived in area; one word, memory or association that comes to mind when you think about using water at home (capture on flipchart). Write in column down left of flipchart</p>	Flipchart
45mins (Elapsed: 10mins) c. 10mins	<p><b>2. Baseline: Water attitudes and behaviours</b></p> <p><b>Baseline water attitudes</b></p> <ul style="list-style-type: none"> <li>• Reflect on these associations and elaborate where interesting. Provide oppositions if appropriate (in right column). Pick out themes (emotional, functional etc).</li> <li>• Is use of domestic water distinct from use of water in other contexts, e.g. for public spaces, industry, farming? Why?</li> </ul>	Flipchart

c. 10mins	<ul style="list-style-type: none"> <li>• Explore whether domestic water is seen as analogous to other resources, commodities and utilities – e.g. electricity, petrol, gas. Where does the analogy work or break down? Or is it more like a natural right: i.e. air, grass, sunlight? How does this help to reveal the group’s attitude towards it? A right or a responsibility?</li> <li>• Point out within-group differences and ask what influences our attitudes to domestic water: PROBE on values; technology (e.g. meters); age and life stage; upbringing; wealth; education; personality, lifestyle and aspirations; perceptions of plenty/scarcity (e.g. climate change)?</li> <li>• How have attitudes/associations evolved over time, if at all? E.g. older participants remembering stand pipes but also less frequent drought orders. Younger people being taught about climate change at school.</li> </ul>	
c. 10mins	<p><b>Baseline water habits/behaviours</b></p> <ul style="list-style-type: none"> <li>• How do we act with respect to water at home? Give examples of typical water habits and behaviours e.g. during typical day. When are they most conscious about using it? How are they conscious – i.e. quality or quantity?</li> <li>• How fixed do these habits seem? E.g. demands of an active family. How much scope for change do they perceive? Where? Why? How realistic is this?</li> <li>• When have they changed their habits? What did they change and what prompted this?</li> <li>• Where/when are they most conscious of <u>water wastage</u>? Why? (e.g. is it only drought orders; what about in daily habits). Where would they place themselves on a scale of water usage?</li> </ul>	<p>Images and sort cards of appliances.</p> <p>Voting stickers.</p>
c. 15mins	<p><b>TASK: Baseline awareness of usage</b></p> <p>Sort cards with names and images of typical domestic water appliances and a measure of use: e.g. “Dishwasher: one full load”; “Power shower: 10 minutes”; “Washing machine: full load”; “Hose pipe: 10 minutes”.</p> <p>Around 6-7 cards in total.</p> <p>Group works together (on table or stuck on flipchart) to rank them (top to bottom) firstly in order of relative water consumption.</p> <p>Then attempt, using stickers on the cards, each representing a bucket of water (X litres), to quantify the consumption for each appliance.</p> <p>Show them the actual amounts (pre-made cards with stickers on them).</p> <p>Discuss: How far wide of the mark were they? Does this surprise them? Do the amounts surprise them? What stands out?</p>	<p>Sort cards for water efficient appliances. Hippo, water butt etc. Gives name and brief description</p>

	<p><b>Baseline awareness and attitudes towards water-efficient appliances</b></p> <ul style="list-style-type: none"> <li>• Spontaneous awareness and usage of water-efficient appliances.</li> <li>• What do they believe qualifies as “water efficient”?</li> <li>• If anyone already has them fitted, how did this change their attitudes/habits? E.g. meter being fitted. Why?</li> <li>• Call out names of some appliances and display show cards (without description); gauge awareness and perceived definition.</li> <li>• Awareness and effectiveness of any communications campaigns and information. What made them memorable? Did any conscious change result? Why/why not?</li> <li>• How far are they away from having to adopt these kinds of measures at home?</li> </ul> <p><b>Task: gauging scale of savings with devices</b> Return to sort cards of existing appliances. Now group must place saving devices firstly in relative order of water saved, over a given period for a typical house. (NB need to define parameters so that they can make a like for like comparison). If possible, to compare with existing appliances, e.g. power shower vs electric shower. Then vote with stickers on how many buckets used by item. Discuss: compare with existing appliances. Does scale of savings surprise? Why? Why not?</p>	
<p>15mins (Elapsed: 55mins)</p>	<p><b>3. Looking ahead: Thames Gateway</b> <b>Area identification and perceived water stress</b></p> <ul style="list-style-type: none"> <li>• If a foreigner asked you where you live in England what would you say? Do you feel a sense of “belonging” to an area/locality? How do you define that locality?</li> <li>• Perception of water supply in their area?</li> <li>• Where does your water come from? Who else shares your water?</li> <li>• Is water plentiful or stressed? Why? What’s causing it?</li> <li>• PROBE AWARENESS/PERCEPTION: climate change/rainfall; water cost and leakage; business use; domestic use; agriculture. Capture on mindmap on flipchart.</li> <li>• Participants vote using stickers (circa 5 each) on the factors most to blame for water stress in their region.</li> <li>• Reflect on this: why are these the worst culprits?</li> <li>• If there is stress, whose responsibility is it to address it? What different stance should each party be taking (e.g. public, central/local government, water companies, business)</li> </ul>	<p>Flipchart</p> <p>Capture on flipchart</p> <p>Voting stickers</p>

	<p><b>Identification with Thames Gateway and business as usual</b></p> <ul style="list-style-type: none"> <li>• Write up “Thames Gateway” on flipchart: Associations? Where has this come from? What does it represent?</li> <li>• Show map: prompted reactions. What, if any significance does this region have?</li> <li>• What’s positive/negative about it?</li> <li>• Affinity with other TG communities? Similar priorities and outlook? Any differences? E.g. rural-urban; London vs the rest; natives vs “foreigners”. What are the differences in values?</li> <li>• Perceived severity of water stress for TG region? Why? Different to their locality? Why? Are differences between TG communities partially to blame? How?</li> <li>• Which water companies serve region? Perceptions of performance? Culpability? Why? Based on what evidence?</li> <li>• What is the TG public’s role in addressing water stress? What level of responsibility? Why? What kinds of steps taken? If not, why not?</li> <li>• What other solutions to water stress?</li> </ul>	<p>Large TG map suitable for annotation and “graffiti”</p>
<p>20mins (El: 1hour 10mins)</p> <p>10mins for projective</p> <p>10mins for feedback</p>	<p><b>4. Looking ahead: Future of TG?</b></p> <p>Guided fantasy exercise:</p> <p>Ask group to close eyes and project themselves back to their homes.</p> <p>Imagine the clock is wound forward 20 years time to 2027. They’re 20 years older. Create image of what they’ll be doing/lifestyle/ household etc, assuming that they’ve stayed near where they currently live. How do you use water in your house?</p> <p><i>Open eyes and privately record impressions on pad.</i></p> <p>Close eyes again. Then pan outwards. Imagine you’re flying above your street, your town.</p> <p>What changes have there been? Think about a range of things. What are people driving? Where are they working? What are their houses like? What’s the environment like? What are they happy about? Sad about? Worried about? What are they doing differently? What about the water they’re using? How are they using it? Same or different?</p> <p><i>Open eyes and privately record impressions on pad.</i></p> <p>Close eyes again and now pan out wider. You’re flying over the TG region. What do you see beneath you? Picture the communities you see, the landscape, the river. What sounds, smells, sensations are there? What’s happening to the water in the region? How much/little? Why? What’s being done about it?</p> <p><i>Open eyes and privately record impressions on pad.</i></p> <p>Moderator goes through each stage of the journey, getting stories from individual participants on key elements.</p>	<p>Notepads and pens.</p> <p>Collect in at the end.</p>

	<p>Focus on water but also on context of water use. Are these fantasies realistic? Play devil's advocate if too positive or negative.</p> <p>Is this an aspirational future or a negative one?</p> <p>How different are everyone's futures and why?</p> <ul style="list-style-type: none"> <li>• PROBE: on associations – if pessimistic/optimistic why? What seem to be most pressing concerns – housing, immigration, employment, environment etc?</li> <li>• What set of events/factors got us here to this world?</li> </ul>	
15mins (Elapsed: 1 hour 25mins)	<p><b>5. Stimulus presentation</b> (ppt – delivered by moderator)</p> <p>Slides to cover:</p> <p>Some basic Thames Gateway stats: population, resources etc; current level of water stress and abstraction; breakdown of demand by source – including leakage.</p> <p>Projected housing and development to 2016. Projected water stress, rainfall etc. Some potential solutions.</p> <p>Global context (success of SE UK as a global centre).</p> <p>Visioning material and forecasts for the region.</p> <p>Water neutrality aspiration for 2016 and beyond and what this means. Definitions and aspiration for region to be a pioneer for this approach.</p>	Powerpoint slides. Data pulled from various sources (e.g. Entec; Environment Agency)
20mins (El: 1 hour 45mins)	<p><b>6. Response to stimulus material</b></p> <ul style="list-style-type: none"> <li>• Headline responses: Initial thoughts?</li> <li>• PROBE: projected water stress? Preferred definition of water neutrality. Which factors are motivating and which discouraging? Fairness?</li> <li>• How, if at all, does this affect their outlook for the TG outlined in their visions?</li> <li>• How does their anticipated water consumption seem to them in light of this information? What if anything has changed? Why? What arguments or data prompted this change?</li> <li>• What are the most compelling arguments/statistics etc either for or against tackling public demand?</li> <li>• How motivating is the concept of a collective goal for all the Gateway communities? Is this a cause you can rally behind or is it empty?</li> <li>• What makes them more inclined to pursue other solutions?</li> <li>• What kinds of trade-offs do we face? What are our options? Pros and cons of each?</li> <li>• What are we prepared to do? What should others be doing?</li> <li>• What's helping us/standing in our way?</li> </ul>	Flipchart
10mins (El: 1 hour 55mins)	<p><b>8. Explain tasking pack</b></p> <p>Hand out tasking pack and go through explaining requirements and answering questions.</p>	Tasking pack
5mins (El: 2 hrs)	<p><b>9. Thank and close</b></p>	Incentive money

# Water Summit Draft Facilitation Plan

## Environment Agency - Thames Gateway water neutrality

**Final: 20/04/07**

### *Summary:*

- Four-hour workshop at Design Museum. Shad Thames, London SE1 2YD.
- Saturday 21 April 2007: 1 pm for 1.30 pm start. Closes at 5.30 pm.
- Aiming for 25-30 to attend, selected from regional stage. Representative of TG region.
- Ipsos MORI team attending: Julian Thompson (Chair); Ed Langley, Chris Perry and Joe Ballantyne (moderators); Paul Kent, Corinne Wilkins and Andrew McQuade (notetakers).
- Environment Agency team: Julie Foley, Martin Townsend  
Entec: Rob Lawson.  
CLG: Victoria Walker, Katrina Doyle.  
CC Water Thames: David Bland.

### *Objectives and coverage:*

- Understand impact of tasking phase on perceptions of water issue, and which aspects of behavioural change and messaging might work to influence public perceptions of demand.
- Gauge relative acceptability of different demand management strategies, and criteria for deciding acceptability.
- Examine how acceptability varies under different circumstances (i.e. possible future change, for different members of the TG community).
- Look at the prospects for achieving water neutrality by 2016 and the extent of any shortfall in meeting the target: what are the key barriers and opportunities for success and what would the public advocate as means to achieve it.

### *Stimulus requirements:*

- Three x large double-sided white boards with paper and pins (Ipsos MORI).
- Hexagonal and other post-its; pens; collage materials (Ipsos MORI).
- Environment Agency/other stimulus presentation on neutrality aspiration, TG development plans and scenarios (EA).
- Three x hypothetical TG households (Ipsos MORI).
- Template grids (large, printed, for capturing water strategies for each scenario/case study family) (Ipsos MORI).
- Flipcharts and pens.

Timing	Coverage	Materials
1pm-1.30pm (NB Ipsos MORI Team have access from 12.30pm)	<p><b>1. Arrival, registration and lunch</b></p> <p>Participants arrive. Get name badges/register with team member – colour-coded for each breakout group.</p> <p>Given poll metric to complete and post into a box.</p> <p>Buffet lunch served.</p> <p>Moderators circulate to put people at ease.</p>	<p>Registration form</p> <p>Name badges (colour-coded for breakout groups)</p> <p>Poll questionnaires</p>
1.30pm-1.45pm	<p><b>2. Welcome and introductions (PLENARY)</b></p> <p>Welcome participants. Introduce team; outline nature of project; explain confidentiality, housekeeping, and reassure about the “rules” of the event (no right or wrong answers etc).</p> <p>Roadmap of the day, including breaks etc.</p> <p>Explain that we are going to start from where we left off at the regional events, but then go further to think about the future i.e. how we might change the way we consume water in our region over next 10-20 years.</p> <p>EA/wider team here to help us do that. They don't have the answers and are wrestling with these issues too, so are keen to find out “what works” from your perspective. But they can also help us learn more about the situation and identify what's realistic/feasible.</p> <p>SLIDES (JT) -Tasking: what we learned.</p> <p>Present back data on how much water people seemed to be saving by adapting their behaviour.</p> <p>How difficult was it to achieve this?</p> <p>Introduce first section of the afternoon's discussions.</p>	<p>Ppt slides</p>
1.45 – 2.45pm	<p><b>3. Lessons from tasking: “What works” (BREAKOUTS)</b></p> <p>Go into three breakout groups, each based on life-stage composition, using colour coding on badges. EA/stakeholder team can float between.</p> <p>Personal introductions: plus something that's either changed or confirmed how they feel about water (either way) as a result of this experience.</p> <p>Initial (brief) warm-up discussion:</p> <p>Overview of the lessons learnt/anything that had influenced their view from:</p> <ul style="list-style-type: none"> <li>• The regional events: what ideas, facts, learnings from other people?</li> <li>• The tasking phase: what did they find easy/hard? What discussions or changes did it spark at home? What new information</li> </ul>	<p>Flipchart</p> <p>Ppt slide handouts with charts</p>

	<p>did they come across that altered their perspective in any way?</p> <p>Quick brainstorm on flipchart: “what works” – based on lessons learnt, identify most effective attitudes, behaviours, habits, policies, appliances etc that made or could make any kind of difference to reduce their water demand.</p> <ul style="list-style-type: none"> <li>• Get each suggestion on an individual post-it note and stick them all up on the board.</li> <li>• Quick prioritisation: high/medium/low effectiveness on their consumption</li> </ul> <p>Then choose top 5-6 (or more if time) and work through them in the task:</p> <p><b>TASK: “What works”</b> (to reduce our household demand).</p> <p>Introduce A1 poster template grid on board. The grid would include spaces for water-saving measures to be stuck on in the side headings, then information on each measure would be collected in the columns.</p> <p>Moderator scribes to fill in columns as group.</p> <p>Moderator can include prompts for group’s consideration (e.g. compulsory metering).</p> <p>NB these can include anything in the mix, providing it is related to <i>demand</i> management – referring back to the water neutrality definition.</p> <p>Once they have been explored:</p> <p>Moderator reflects back to group on any emerging pattern. And asks ‘What are our underlying criteria for deciding “what works”?’ Capture on flipchart.</p> <p><i>Request volunteers from among group to present back the findings from that group’s discussions, in pairs if easier.</i></p>	<p>Flipchart and post-its</p> <p>Big white boards with template grid and flipchart</p> <p>Stickers for water measures</p>
<p>2.45pm-3pm</p>	<p><b>4. Group feedback presentations: “What works” (PLENARY)</b></p> <p>Short summary presentations from each of the three groups about “what works” from their perspective and where the most significant challenges lie.</p> <p>Moderators comment on any similarities/differences between groups.</p> <p>Based on all this, how optimistic/pessimistic are they about the scale of the challenge?</p> <p>What are their current perceptions of the neutrality goal? Is it a worthwhile one? Explore different definitions. What would it take?</p>	
<p>3-3.15pm</p>	<p><b>5. Coffee break on terrace</b></p>	
<p>3.15-3.40pm</p>	<p><b>6. Environment Agency stimulus presentation</b></p> <p><i>EA/wider team present stimulus material on the challenge of water neutrality.</i></p> <p><i>What the vision for the TG region is and the implications for water resources. Explain why we have been focused</i></p>	<p>EA ppt presentation.</p>

	<p>on demand and will continue to do so for second half of summit. Explain why we are not focusing on supply-side solutions (e.g. cost, time required to implement and environmental impact).  Explain that water neutrality does not include leakage reduction. It assumes water companies doing all they can to reduce this.  Explain some of the different mechanisms they could apply to reduce demand, including any the group haven't already considered (e.g. smart metering technology).  Also any wider changes that may affect the goal that they may not have considered (e.g. projected climate change to 2016).  If possible, reflect on how close the public's vision from the first half of the summit would be towards achieving actual neutrality.  Present two alternative scenarios of how we might have achieved actual neutrality by 2016, applying different mix of mechanisms. NB may not necessarily correspond to Pathway scenarios if not appropriate.</p> <ul style="list-style-type: none"> <li>• 'Water watch' – this scenario would again focus on changing behaviour, but this time taking a more aggressive approach through compulsory metering, and the use of seasonal or rising block tariffs. This would, however, be accompanied by information on how to save water.</li> <li>• 'Flush and go' – this scenario would rely on a widespread retrofit programme. New housing stock would also be made as water efficient as possible – including recycling water at community level. Greater use of minimally treated water in homes. This scenario would not involve the public changing behaviour but would it prove acceptable.</li> </ul> <p><b>Ipsos MORI presentation follows on...</b>  What would these mean for a typical household?  Describe three hypothetical households from the TG (one from each of Essex, East London, Kent).  Each with a different composition and home type.  Some images to describe the family and their needs.  Describe some of the wider changes that might occur over the next 10 years in technology, society, politics etc to add a wider perspective. Things they might be grappling with.</p>	<p>Making the pathway data accessible to the public</p> <p>Providing some wider context and additional stimulus</p> <p>Some trend data from Sigma Scan to enrich on wider trends</p>
<p>3.40pm – 4.30pm</p>	<p><b>7. Using the scenarios to develop a demand reduction mandate (breakout groups)</b>  Same or mixed breakout groups, depending on mood – second colour-coded badges.  Each group views the two scenarios through the eyes of a different fictional household.  First, briefly start by getting more “into character”.  Describe some of the characteristics of this future family and their world/lives in 2016. What's life like for them in this new Thames Gateway? What's good/bad about their lives and how do these affect them?  Top of mind response as to which scenario would work best for their family and why?  <b>TASK 7A: Road-testing the scenarios using the families</b></p>	<p>Another poster template.  One column for each scenario, with rows as described left.</p>

	<p>Using the family as a thinking device/lens, the group works through the poster template for each of the two scenarios.</p> <p>Encourage people to use their own experiences from tasking etc, to inform how they evaluate the scenarios and the fictional family’s response.</p> <p>Along the way, moderator teases out underlying pattern of thinking in the debate:</p> <ul style="list-style-type: none"> <li>• What “works” to reduce demand in either scenario?</li> <li>• What criteria do people seem to have in deciding what works?</li> <li>• What trade-offs do they seem prepared/reluctant to make? E.g. are people prepared to accept appliances/devices such as grey water recycling at a development level, if not at a household level?</li> <li>• What practically and attitudinally stands in the way of rolling out new approaches to demand management?</li> <li>• How (in)surmountable are these obstacles?</li> <li>• Along the way, get comment on how this would work for their <i>actual</i> households as well as the fictional one.</li> </ul> <p>NB Keep playing devil’s advocate if people seem either unnaturally positive/negative about prospects. Refer them back to their tasking experiences etc as a reality check.</p> <p>NB If this isn’t working/participants don’t seem to need the structure of the exercise, go straight to 7B.</p> <p><b>Task 7B: “Best-case scenario”</b></p> <p>Once the 7A exercise has been completed, go to flipchart paper and attempt to sketch out with the group what their “best-case scenario” would be to achieve demand reduction.</p> <p>What are they prepared to accept? What interventions would they support/accept?</p> <p>Borrow the best ideas from the scenarios, tasking, regionals etc. Get some idea of how close this would be to neutrality. Get EA/Entec advice on this. Get a couple of new volunteers ready to present this back with support.</p>	
4.30- 5pm	<p><b>8. Feedback</b></p> <p>Groups present back what they learned from the scenario exercise, and what their best-case scenarios suggested.</p> <p>Moderator helps groups to identify which aspects of all scenarios are emerging as the most effective/acceptable.</p> <p>Comments and questions to and from the EA team at this stage to mop up any new issues/questions.</p>	Summarise on flipchart while people are presenting back to the plenary
5-5.15pm	<p><b>9. Taking action</b></p> <p>What immediate steps can be taken now to start working towards the preferred vision of water</p>	Brainstorming on

	neutrality? Any consensus on these? <ul style="list-style-type: none"> <li>• Quick wins (i.e. from today).</li> <li>• Medium-term goals.</li> <li>• Longer term aspirations.</li> </ul>	flipchart
5.15-5.30pm	<b>10. Thank and close</b> Closing remarks from Ipsos MORI thanking participants. Environment Agency to thank and explain what happens to the findings of the project. Administer polling metric, incentive money etc.	Incentives Poll metrics Forms etc

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