

# Waste Water Recycling

## Final Report

December 2012

Prepared by:

Accent  
Chiswick Gate  
598-608 Chiswick High Road  
London  
W4 5RT

Prepared for:

Atkins Limited  
Woodcote Grove  
Ashley Road  
Epsom  
Surrey

---

Contact: Jo East  
E-mail: jo.east@accent-mr.com  
Tel: 020 8742 2211  
Fax: 020 8742 1991

Contact: Julian Jacobs

File name: J:\2372 Waste Water Recycling\WP\2372rep03\_final.doc

# CONTENTS

Executive Summary .....	i
1. INTRODUCTION.....	1
1.1 Background .....	1
1.2 Objectives .....	1
2. METHODOLOGY .....	2
2.1 Introduction .....	2
2.2 Sampling.....	2
2.3 Pilot .....	3
2.4 Topic Guide and Questionnaire.....	3
2.5 Statistical Significance of the Data.....	3
3. FINDINGS .....	4
3.1 General Context.....	4
3.2 Attitudes and Behaviours towards Water Usage .....	4
3.3 Attitudes to Water Shortages and Potential Solutions.....	7
3.4 Awareness and Understanding of Wastewater Recycling.....	9
3.5 Considered Reactions to Wastewater Recycling.....	11
3.6 Customer Engagement.....	21
3.7 Survey Respondent Profile .....	25
4. Conclusions and Recommendations.....	31
Appendix A: Face to Face Depth Summary	
Appendix B: Topic Guide	
Appendix C: Questionnaire	

## Executive Summary

Accent has recently undertaken a research project for Southern Water to explore and evaluate customer attitudes and perceptions towards developing and implementing a wastewater recycling scheme as a way of increasing the resilience of its water supply by making more water available to put into the water supply network.

The research study comprised two phases. The first element was qualitative comprising a series of focus groups and face to face depth interviews. The second phase involved undertaking 1,000 CATI (Computer Assisted Telephone Interviewing) interviews with Southern Water customers to understand peoples' view of wastewater recycling and what their communications preferences were for conveying the key messages associated with such schemes.

The key findings from both phases of the research were very similar and included the following:

- Two in three respondents felt that they were aware or very aware of water related issues in the South of England.
- Two-thirds felt it was likely or very likely that there will be water shortages in the southern part of England in the future. The qualitative element supported these findings as there were large levels of agreement that the likelihood of water shortages in the south was high.
- The most common suggestions to solve water shortages included reducing leakage and building new reservoirs. This shows a strong degree of consistency with the qualitative phase where the most commonly mentioned solutions were investing in fixing leaking pipes and increasing water storage facilities e.g. more reservoirs.
- Almost two-thirds said they did not know where their water supply came from.
- In terms of being aware of wastewater recycling there were similar results between the two elements of the study. Overall, just over two in three respondents were aware of wastewater recycling as a solution to water shortages, including around one in eight who mentioned this unprompted. The focus groups and depth interviews show that many people had at least a vague understanding that wastewater was being reused to some degree.
- The survey showed that for at least half of those aware of wastewater recycling, this approach meant re-using sink water and/or bathwater and/or re-using rainwater.
- Just over two-thirds of respondents were supportive of wastewater recycling as a means of increasing the amount of water available for supply. The qualitative work lends support to the survey findings that, on the whole, people were in favour of wastewater recycling as a means of alleviating water shortages
- In the survey, less than one in ten were unsupportive. There was also a minority in the focus groups and depth interviews who were concerned about long term side effects and were therefore unable to reconcile wastewater being reused with it being safe to drink.

- Two in three respondents would be confident to drink tap water in their home as a result of a wastewater recycling scheme. Most of the participants who took part in the qualitative phase also said they would drink tap water, if it was supplied via a wastewater recycling scheme.
- Almost all respondents thought there were benefits to wastewater recycling. The most frequently mentioned benefits were less water shortages, saving/conserving water and having more water available. Perceived financial benefits such as cheaper water and saving money were less frequently mentioned than water conservation factors. The qualitative work showed that nearly everyone perceived the same potential benefits, regardless of their view on whether wastewater recycling was a good idea
- Three in five respondents also felt there were risks to wastewater recycling. The most frequently mentioned risks included contamination, health risks and water not being treated properly. Focus group participants who were concerned about the risks of wastewater recycling were generally worried about the long term effects to health posed by chemicals used in processing the water, but interestingly did not cite the chemicals in the wastewater.
- Ensuring tap water quality and that the water does not affect public health are the most pressing issues that must be addressed when thinking about a wastewater recycling scheme. The qualitative element mirrored these findings as tap water quality and public health were seen as closely correlated by people with the two issues being of first or second most importance.
- When presenting the prospect of the wastewater recycling scheme it would be best if Southern Water did it with the help of regulatory bodies. Some people in the focus groups did not feel it was appropriate for Southern Water to be involved in the communications of such a scheme, but others suggested a joint approach between the water company, DWI and the EA. Some were also happy with Southern Water being responsible for the communications.
- The most effective ways of engaging and communicating the benefits of a wastewater recycling scheme with customers were considered to be TV adverts, letters, leaflets and local press. The qualitative findings highlight a couple of methods where there was strong agreement about the most effective communication channels. One was an informative documentary, such as the government drink drive campaign. The other was face to face meetings which were considered ideal for giving people the opportunity to ask any questions, thus making it much more of a two way dialogue.
- Two in three respondents said that they would need to be told where their water supply would actually come from in any communications exercise. Evidence from the qualitative stream also shows a split between people who were not bothered about knowing where the water came from and those who were. The former group suggested that 'if the water is safe to drink, what does it matter' or 'that as they could not do anything about it, they had no interest'. Then there were those who wanted to know simply because they had the right to.

# 1. INTRODUCTION

## 1.1 Background

Southern Water is currently developing its water resource strategy for the next 25 years (2015 to 2040). As part of that strategy it is looking at a number of plans and options that will enable it to implement schemes which will increase the resilience of its water supply by making more water available to put into the water supply network.

In particular Southern Water is exploring the option of developing and implementing wastewater recycling schemes which will enable an increase in the amount of river water available for abstraction.

Research was undertaken to understand peoples' view of wastewater recycling and what their communications preferences were for conveying the key messages associated with such schemes.

An intention of the research was to make recommendations based on the findings and to inform the wastewater recycling project going forward: in particular to inform the mechanisms and styles of communication that will result in the trust and acceptance of wastewater recycling as translated into a communications strategy for Southern Water.

## 1.2 Objectives

The objectives of the research were as follows:

- To test the general level of acceptance for wastewater recycling and whether customers think they will drink water supplemented by planned wastewater recycling
- To understand what customers see as the potential benefits and risks of a water wastewater recycling scheme
- To establish what factors potentially influence public perceptions and therefore future engagement activities e.g. standard demographic factors (such as age and income) as well as other factors such as religious belief, ethnicity, parenthood and context effects
- To determine the preferred option for returning the treated product water back to the environment
- To understand the presence of any other strong attitudes or trends that might impact on the feasibility of the wastewater recycling project.

## 2. METHODOLOGY

### 2.1 Introduction

A combined approach of qualitative and quantitative methodologies was utilised for this research. The research involved two stages.

- The first stage was qualitative and comprised six reconvened focus groups and eight face-to-face depth interviews with customers of different ethnicities, cultures and religions.
- The second stage was quantitative and comprised 1,000 CATI interviews. This report details the findings from both elements of the project, but with a particular focus on the quantitative stage.

The qualitative phase took place in August and September 2012, while the quantitative phase took place during October 2012.

This research has been undertaken in line with the guidelines set out by the market research quality standard ISO 20252:2006.

### 2.2 Sampling

The two tables below (Table 1 and Table 2) show the make up of the samples for both the focus groups and face to face depths for the qualitative phase.

**Table 1- Focus Group Sample Structure**

Location	SEG	Urban/ rural	Lifestage	Age	Gender	Attendees
1 & 5 Chatham	C2DE	Urban	Retired	50+	Mix	9
2 & 6 Chatham	ABC1	Urban	DINKYs (or single no kids)	18-49	Mix	6
3 & 7 Horsham	C2DE	Rural	Young Family	18-49	Mix	8
4 & 8 Horsham	ABC1	Rural	Empty Nesters	50+	Mix	7
9 & 11 Southampton	C2DE	Urban	Empty Nesters	50+	Mix	10
10 & 12 Southampton	ABC1	Urban	Young Family	18-49	Mix	8

**Table 2 – Face to Face Depth Sample Structure**

Gender	SEG	Age	Ethnicity	Religion
Female	ABC1	18-44	Asian/Asian British	Muslim
Male	C2DE	18-44	Black/Black British	Other
Female	ABC1	18-44	Asian/Asian British	Sikh
Male	C2DE	45+	Asian/Asian British	Sikh
Male	ABC1	18-44	Asian/Asian British	Muslim
Female	ABC1	45+	Black/Black British	Other
Female	C2DE	18-44	Asian/Asian British	Sikh
Female	ABC1	18-44	Asian/Asian British	Muslim

For both elements of work, all respondents had to have their water supplied by Southern Water and had to be the person in their household who was responsible (solely or jointly) for paying their household's water and sewerage bill.

For the quantitative stage, exactly 1,000 interviews with Southern Water customers were achieved. Minimum quotas were set across age, gender and socio-economic grades (SEG) in order to achieve a representative sample of Southern Water customers. The exact nature of the various demographic split are detailed in Section 3.7. The maximum margin of error on a sample size of 1,000 is  $\pm 3.10\%$ .

## 2.3 Pilot

Accent recommended undertaking a pilot of 20 interviews. The pilot was used to test:

- the recruitment process
- the clarity and flow of the questionnaire
- the appropriateness of the language used
- the accuracy of all routings
- the survey hit rate.

## 2.4 Topic Guide and Questionnaire

The topic guide used in the focus groups and the face depths is included in Appendix A

The questionnaire for the telephone was designed by Accent and took approximately 15 to 20 minutes to complete.

The questionnaire also included a section which enabled customer profiling to be undertaken, including: socio-economic grade (SEG), age, ethnicity, location, income, religion, education and parents of young children.

A copy of the questionnaire used is contained in Appendix B.

## 2.5 Statistical Significance of the Data

Throughout this report where a difference between two groups has been found to be statistically significant at the 95% level this is highlighted in the text. This level of significance indicates that one can be 95% certain that the differences between the two sample groups with the specific characteristic being tested are not the same.

### 3. FINDINGS

#### 3.1 General Context

The qualitative phase that was carried out prior to the main survey showed that most people had a good understanding of the general role Southern Water played in their area. Some of the key services and roles that people mentioned included:

- providing clean drinking water
- taking away wastewater
- maintaining the reservoirs
- maintaining the infrastructure; but
- there was little mention of Southern Water’s environmental responsibilities.

A few respondents believed that Southern Water was already recycling water but were unsure what this exactly entailed. Some also thought that the water was being recycled but only used for activities such as agriculture or secondary tasks, such as flushing toilets.

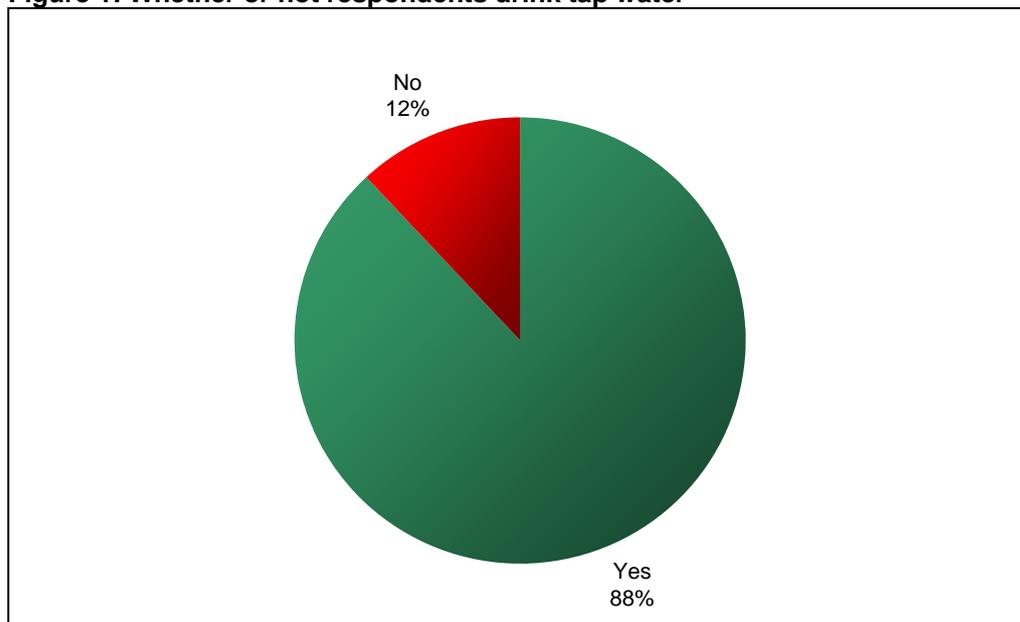
In terms of communication, most people cited the bill as the main piece of communication they received from Southern Water, but people also mentioned leaflets on upcoming changes or plans. Communication on maintaining drains was also brought up, which did not receive positive feedback.

#### 3.2 Attitudes and Behaviours towards Water Usage

##### Tap Water Consumption

The majority (88%) of respondents said that they drink tap water as shown in Figure 1 below.

**Figure 1: Whether or not respondents drink tap water**



Base: all respondents (1,000)

Males were significantly more likely to drink tap water than females (91% and 86% respectively).

Those from a white ethnic group were significantly more likely to drink tap water than those from a non-white ethnic group (88% and 70% respectively).

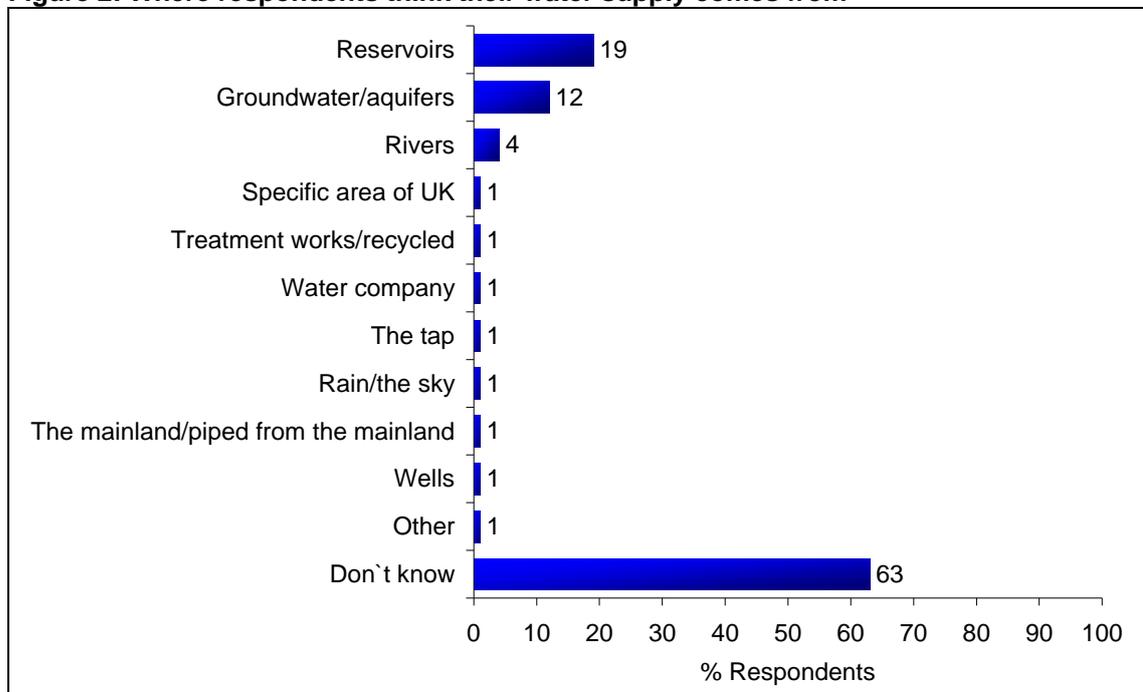
The evidence from the focus groups and depth interviews also shows that most people drink tap water and that they have no reservations about doing so. A minority of people did comment on the aesthetics of the water such as the taste and hardness of the water.

## Source of Water Supply

Almost two-thirds of respondents (63%) said they did not know where their water supply came from (see Figure 2), including a significantly higher share of 18 to 29 year olds (82%) and 30 to 44 year olds (72%). Females were also significantly more likely than males to say they did not know where their water supply came from (71% and 51% respectively). The same thing emerges with those who do not drink tap water where 77% were significantly more likely to say they did not know than those who do drink tap water (61%).

One in five respondents (19%) said their tap water came from reservoirs, while 12% mentioned it came from groundwater/aquifers and 4% said it came from rivers. Mention of groundwater/aquifers was significantly higher among those 45 years or older than those aged younger than 45 years.

**Figure 2: Where respondents think their water supply comes from**



Base: all respondents (1,000)

## Awareness of Water Related Issues

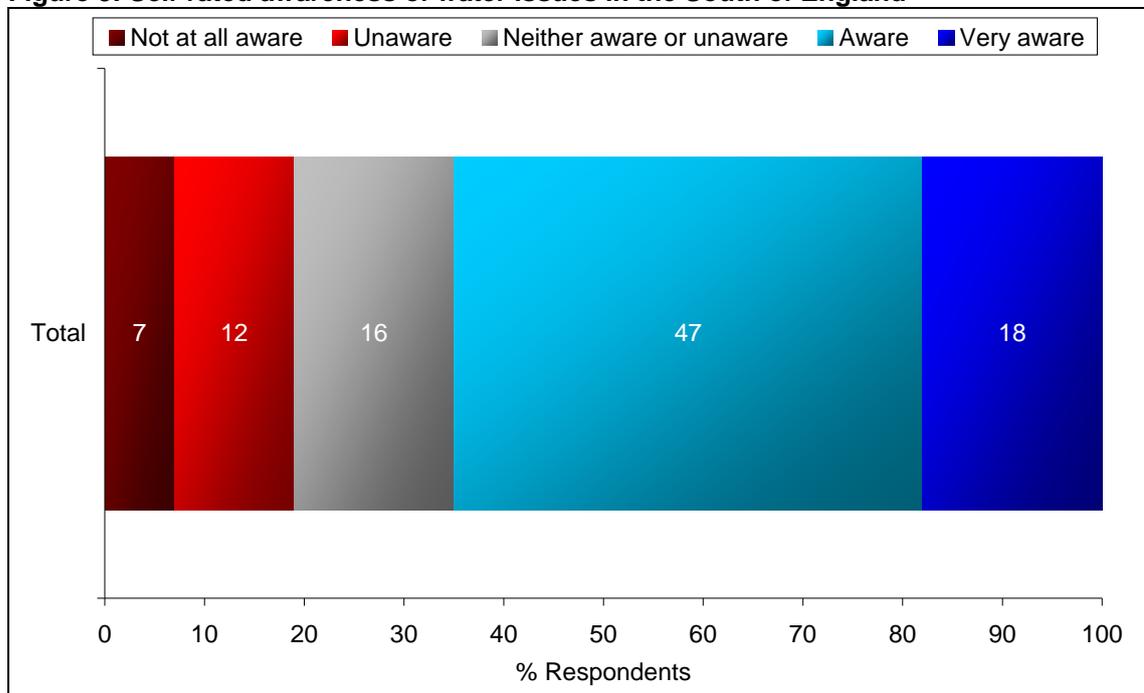
Respondents were asked to rate their own awareness of water related issues in the South of England. As shown in Figure 3 below, two in three respondents (65%) felt they were

aware (47%) or very aware (18%) of such issues. Around one in six (16%) felt they were neither aware nor unaware, while one in five felt they were unaware (12%) or not at all aware (7%) of water related issues in the South of England. The mean rating was 3.57, where not at all aware received a rating of 1 out of 5, and very aware received a rating of 5.

There were some differences between respondents; respondents 45 years or older were significantly more likely to give a higher mean rating than those younger than 45 years (mean ratings of 2.91 for those aged 18 to 29, 3.38 for those aged 30 to 44, 3.66 for those aged 45 to 64 and 3.69 for those aged 65+). Indeed, 21% of 18 to 29 year olds felt they were not at all aware of water issues.

Males were also significantly more likely to feel they had greater awareness of such issues, with a mean rating of 3.68 compared with a mean rating 3.50 for females.

**Figure 3: Self-rated awareness of water issues in the South of England**



Base: all respondents (1,000)

### Attitudes to Water Conservation

People were asked what words they would use to describe their attitude towards using water. The majority claimed to be proactive in conserving water with people most likely to describe their attitude as ‘careful’ (64%). Other descriptions included ‘conscientious’ (27%), ‘thoughtful’ (19%) and/or ‘use it when I need to’ (11%), as shown in Figure 4 below.

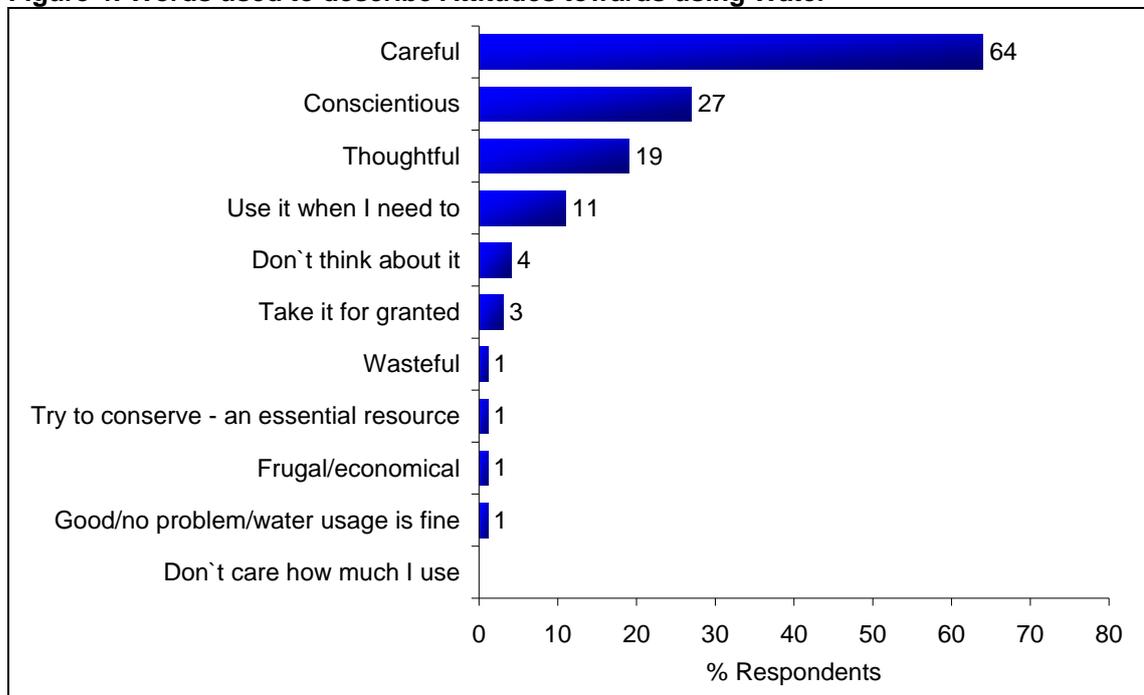
The qualitative research supports these findings as they showed that most people thought water was a finite resource but something that everyone took for granted. It also revealed a general consensus that people were careful and/or conscientious about how much water people use, and that those who had a water meter tended to be more careful because their bills were dependent on how much water they consume.

Females were significantly more likely than males to describe their attitudes as ‘careful’ (69% and 58% respectively). Those on a water meter (68%) were also significantly more likely to describe their attitude in this way when compared with those who are unmetered (55%).

By comparison, those who are unmetered were significantly more likely to describe their attitude as ‘take it for granted’ than those on a water meter (4% and 2% respectively).

The focus groups highlighted that a number of people had chosen to get a water meter, with a few having switched fairly recently, and many claiming that they were now being more moderate or considerate with their water usage as a result of having a meter. It is worth noting that there was some surprise about the considerable savings that could be made and that these had not been better highlighted by Southern Water.

**Figure 4: Words used to describe Attitudes towards using Water**



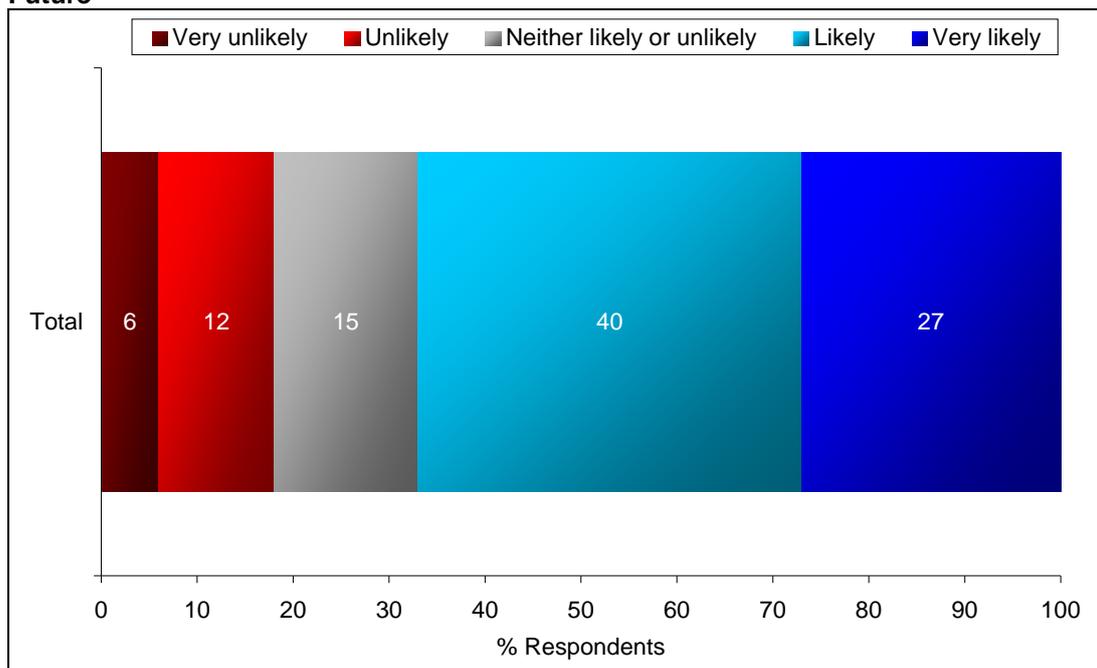
Base: all respondents (1,000)

### 3.3 Attitudes to Water Shortages and Potential Solutions

Respondents were asked how likely they felt it was for there to be water shortages in the southern part of England in the future. Two in three respondents (67%) thought it was likely (40%) or very likely (27%) that such water shortages would occur.

There were no notable differences by different sub-groups.

**Figure 5: Perceived Likelihood of Water Shortages in the Southern Part of England in the Future**



Base: all respondents (1,000)

Again, the qualitative research backed these findings up as there were large levels of agreement that the likelihood of water shortages in the south was high, albeit that very few attributed this to the changing climate. Indeed, some people had already noticed the strain on the current water network, and the lack of water in reservoirs had also been noted. There was considerable concern about the amount of new housing developments and how they would impact on the future availability of water.

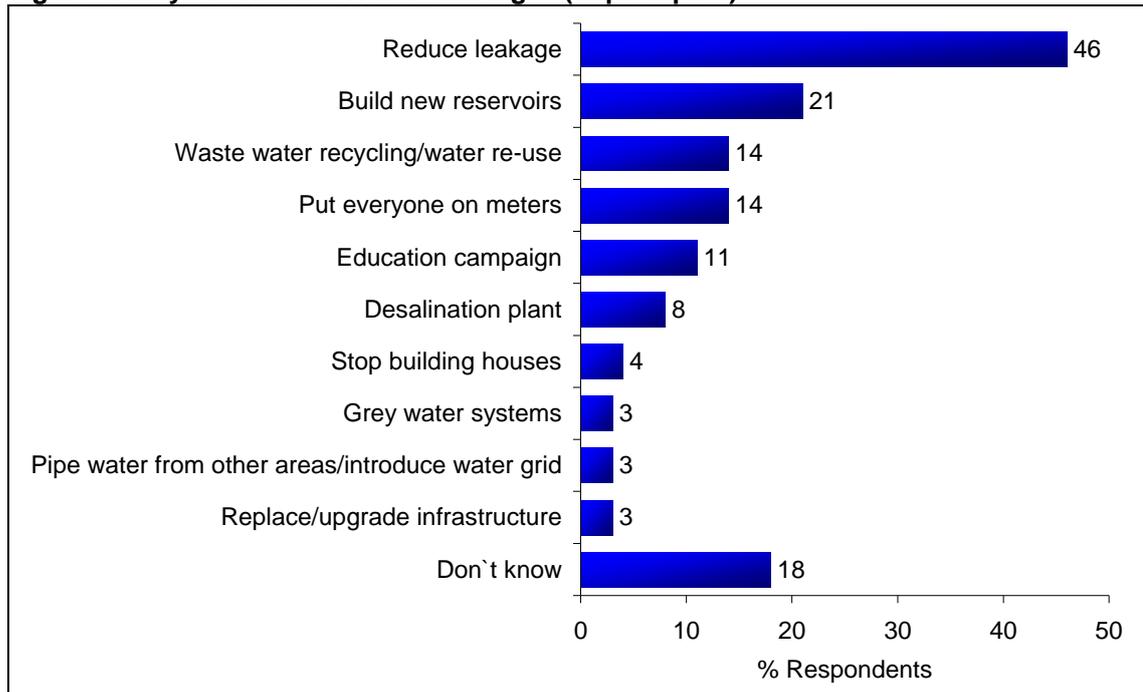
*“We’re building more dwellings of all kinds. The population is growing, not dying . . . We’re dependent on the same chalk aggregate as they were a hundred years ago . . . the pressure on water is going to be more and more”.*

People were then asked to specify (unprompted) what things they thought Southern Water could do to solve the issue of water shortages. Almost half (46%) of the respondents mentioned that Southern Water should reduce leakage, by far the most frequently mentioned response. One in five (21%) said Southern Water should build new reservoirs and 14% mentioned wastewater recycling and/or putting everyone on meters. Just less than one in five (18%) said they could not think of anything Southern Water could do.

The youngest respondents (18 to 29 years) were significantly less likely than other respondents to name something Southern Water could do to address water shortages – 42% said they did not know. Interestingly, while the difference was not statistically significant, those aged under 30 years were the most likely to mention wastewater recycling.

Female respondents were significantly more likely than male respondents to say they did not know what Southern Water could do to address water shortages (22% and 11% respectively).

**Figure 6: Ways to Reduce Water Shortages (unprompted)**



Base: all respondents (1,000)

NB: chart shows those ways mentioned by 3% or more of respondents

Similar to other findings, there is a strong degree of consistency between the qualitative and quantitative elements of work. When people were asked in the focus groups to suggest potential solutions for water shortages, the most commonly mentioned ones were:

- investing in fixing leaking pipes
- increasing water storage e.g. more reservoirs
- desalination plants
- educating the public and businesses to use water less and/or more effectively
- setting up a network to pump water from the wetter northern areas to the south

### 3.4 Awareness and Understanding of Wastewater Recycling

As shown in Figure 6 above, 13% of respondents spontaneously mentioned wastewater recycling as a way Southern Water could reduce water shortages. Those respondents who had not mentioned this were then asked if they had heard of wastewater recycling as an alternative solution for helping to solve the issue of water shortages. Of these respondents, 63% were aware of wastewater recycling. This equates to 55% of all respondents. Therefore, as shown in Figure 7 below, overall 68% of respondents had heard of wastewater recycling.

Although focus groups do not provide a robust quantitative measure, many people had at least a vague understanding that wastewater was being reused to some degree. Indeed, a number of people thought the process of wastewater being recycled for consumption was already in place and widely used; so, as with previous findings, this shows similar views between both the qualitative and quantitative elements.

*“Yeah I thought it was used somewhere along the line. Not necessarily put back into our system but whether it be used for farming or anything like that”.*

*“I told my kids that you go to pee in the toilet, you flush it, it goes back in and they put it back in the tap”.*

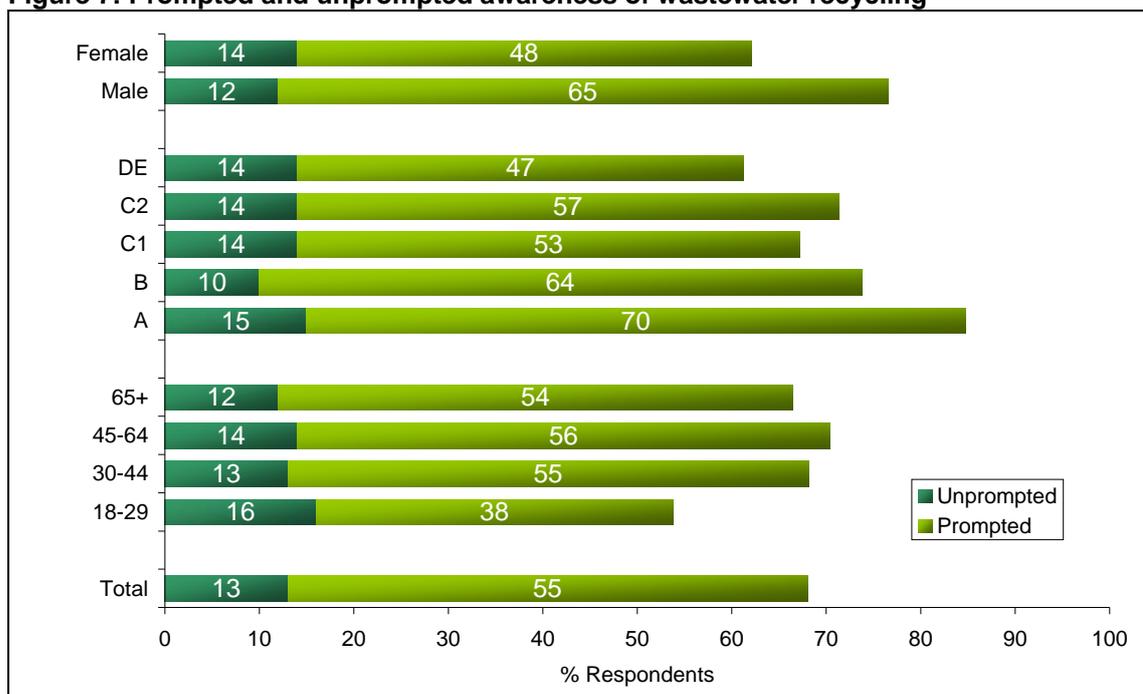
In the survey, there were some notable differences within the sample. For example, males were significantly more likely to be aware of wastewater recycling than females (77% and 62% respectively).

While not statistically significant, those aged 18 to 29 years were the least likely overall to have heard of this alternative solution to help address water shortages; only just over half of this age group were aware compared with more than two in three of those aged 30 years or older. However, they were more likely than their older counterparts to mention this spontaneously.

Respondents from a non-white ethnic group were more likely to mention they were aware of wastewater recycling than those from a white ethnic group (82% and 67% respectively), although it should be noted that the base size for respondents from a non-white ethnic group was low so these figures should be treated with caution.

There also appeared to be a correlation between awareness of wastewater recycling and annual household income. In general, as income increased, awareness of wastewater recycling also increased, rising from 48% of those with an annual household income of less than £6,000 to 83% of those with an annual household income of £60,000 or more. However it should be noted that these differences were only statistically significant when comparing the highest and lowest incomes.

**Figure 7: Prompted and unprompted awareness of wastewater recycling**

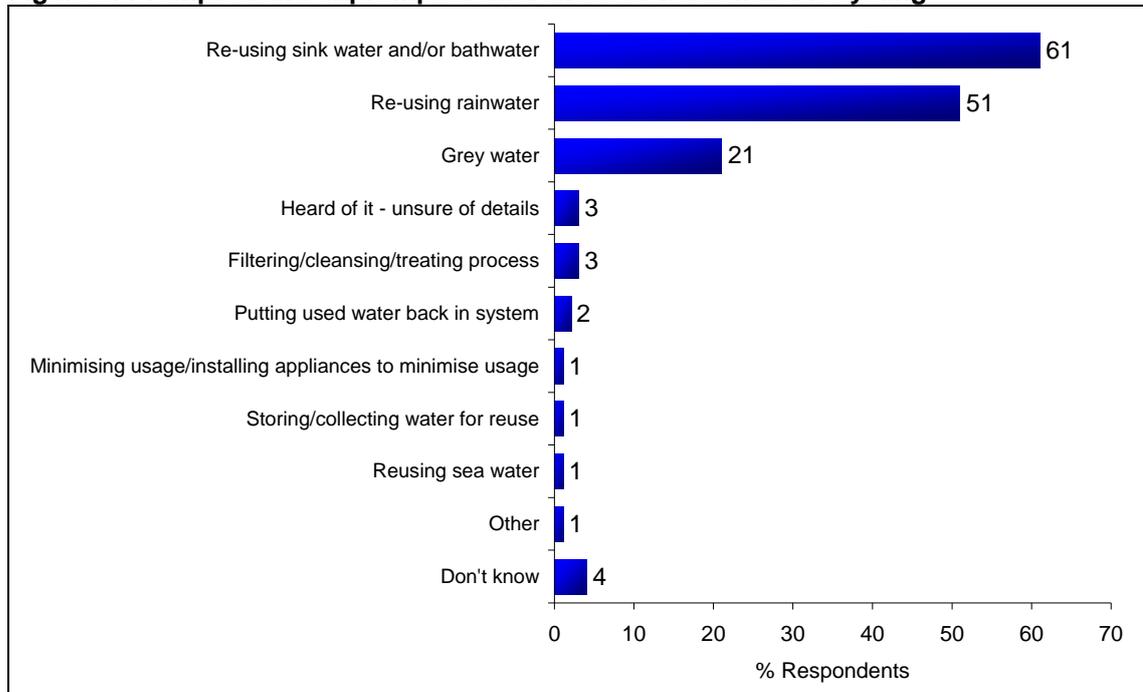


Base: all respondents (1,000)

Respondents who had heard of wastewater recycling were asked what they understood by this term. As shown in Figure 8, three in five (61%) mentioned this meant re-using sink water and/or bathwater, while half (51%) mentioned re-using rain water. Around one in five (21%) mentioned grey water.

Those who had a water meter were significantly more likely to mention grey water than those without a water meter (24% and 13% respectively).

**Figure 8: Prompted and unprompted awareness of wastewater recycling**



Base: respondents who had heard of wastewater recycling (678)

### 3.5 Considered Reactions to Wastewater Recycling

Following up on their spontaneous views of wastewater recycling, customers were then provided with an actual definition the concept as follows:

*“Wastewater recycling schemes involve the planned use of wastewater to increase the amount of water available for supply.*

*Currently wastewater from homes and businesses goes into the sewers and is then treated at a wastewater treatment works before it gets put back into rivers or the sea. In some cases, it may end up back in the water supply through an abstraction point downstream, but this is unplanned. It is generally accepted by Londoners that their drinking water may have passed through several cycles along the route of the River Thames before it arrives at their tap.*

*The difference on a planned wastewater recycling scheme is that less dilution would occur because the distance and time that the wastewater is in the river is reduced before it is abstracted again. This means that enhanced treatment processes are required at both the wastewater and water treatment works to ensure that acceptable standards are maintained”.*

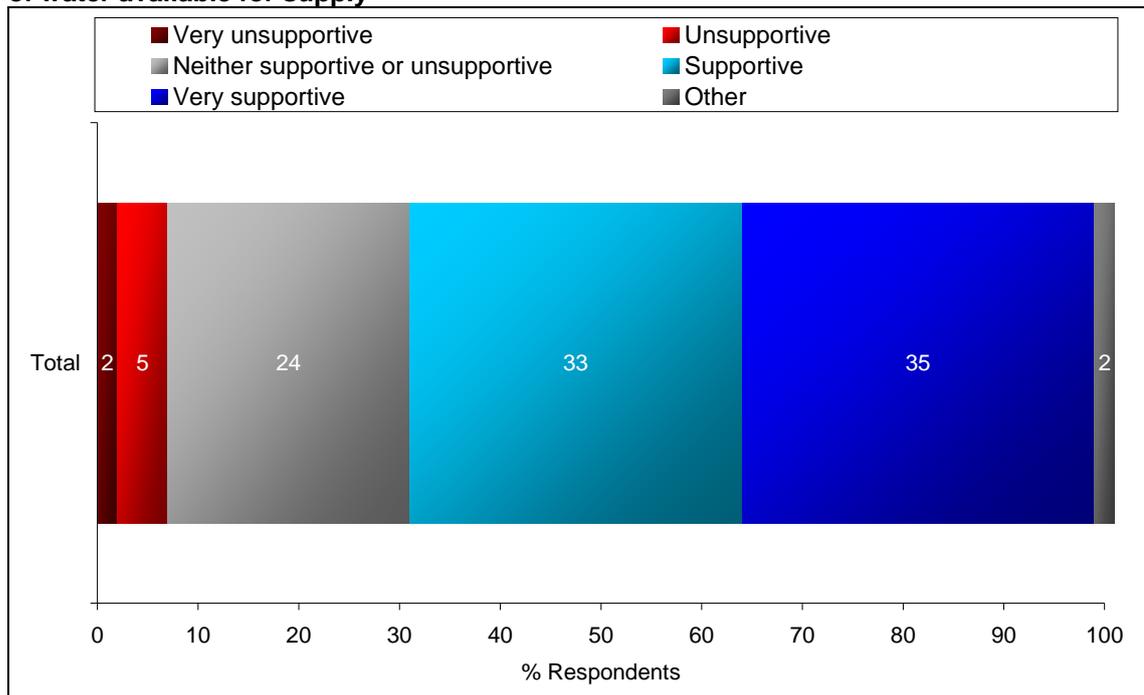
More than two-thirds of respondents (68%) were supportive of wastewater recycling, including 35% who were very supportive. Around one in four (24%) were neither supportive nor unsupportive and only 7% claimed to be unsupportive of using wastewater in this way, as shown in Figure 9 below. The mean rating was 3.96, on a scale of 1 to 5 where 1 was very unsupportive and 5 was very supportive.

The qualitative work lends support to the survey findings that, on the whole, people were in favour of wastewater recycling as a means of alleviating water shortages. However, there was a minority in the focus groups who were concerned about long term side effects and were therefore unable to reconcile wastewater being reused with it being safe to drink. This group suggested any tests taking place on the water to verify its safety, were not to be believed.

Those in SEG A were the most supportive of wastewater recycling; none in this group were unsupportive of the idea and four in five (81%) were supportive, including 61% who were very supportive (significantly higher than for other SEGs).

Seven in ten (70%) of those who were aware of wastewater recycling supported the idea, significantly higher than those who were not aware of using wastewater in this way (60%).

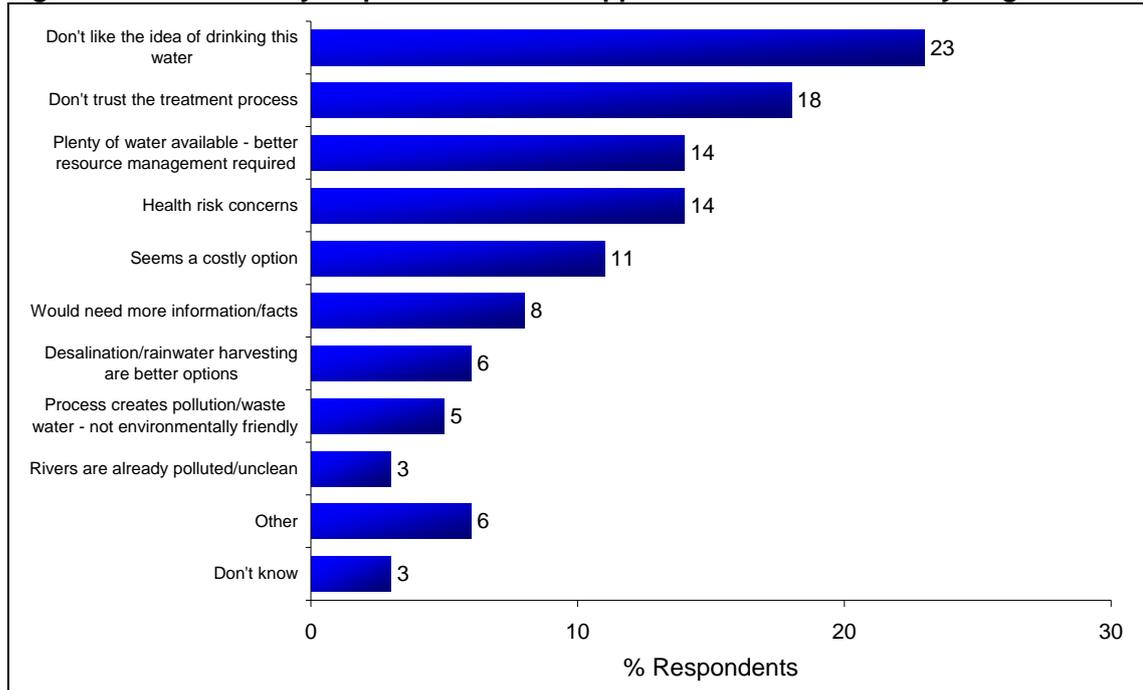
**Figure 9: Level of support for wastewater recycling as a means of increasing the amount of water available for supply**



Base: all respondents (1,000)

Those who were unsupportive of wastewater recycling were asked why they did not support it. Figure 10 below shows that around one in four (23%) of these respondents said they didn't like the idea of drinking water that had been recycled, while 18% said they did not trust the treatment process and 14% had health risk concerns. A further 14% felt there was already plenty of water available and that better management of this resource would mean wastewater recycling was unnecessary.

**Figure 10: Reasons why respondents are unsupportive of wastewater recycling**



Base: respondents who were unsupportive of wastewater recycling (65)

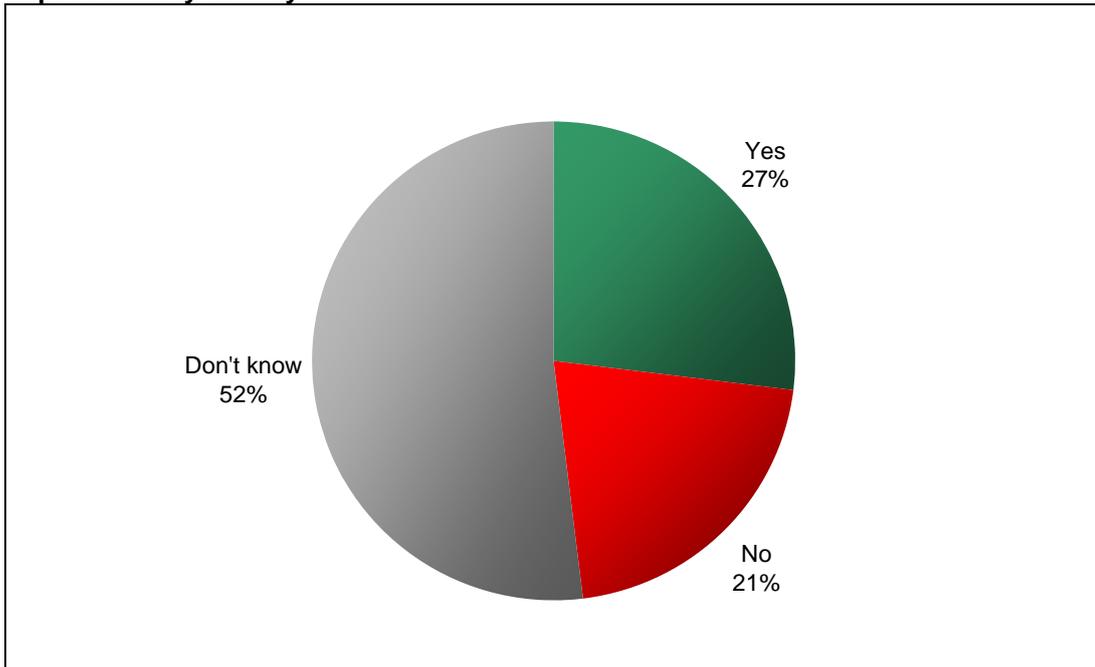
All respondents were asked whether they thought their water was already supplied using recycled wastewater in an unplanned way. As shown in Figure 11 below, just over half (52%) were not sure whether this was the case, while just over one in four (27%) thought it was and around one in five (21%) thought it was not.

In the focus groups many people believed that unplanned wastewater recycling was already a process being used. After the explanation of wastewater recycling was provided, people found it difficult to differentiate between what is currently happening by accident rather than design, the latter which is being proposed by Southern Water.

Males were significantly more likely to think water was supplied in this way (33%, compared with 23% of females).

Those who were aware of wastewater recycling were more likely to think water was already supplied in this way than those who were not aware (31% and 18 % respectively).

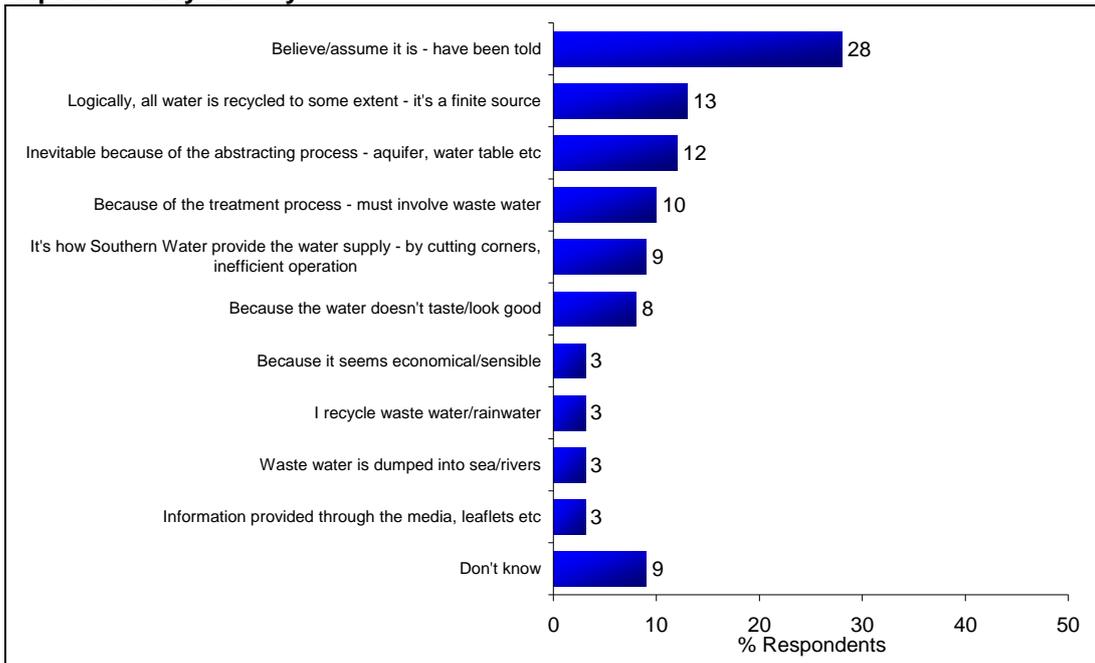
**Figure 11: Whether respondents think water is supplied using recycled wastewater in an unplanned way already**



Base: all respondents (1,000)

Respondents were then asked to explain why they had answered in this way. Figure 12 below shows the responses from those who thought the water **was** already being supplied in this way. Over one in four (28%) believed or assumed it was being supplied in this way because they had been told so. Thirteen per cent felt this was logical as all water is recycled to some extent, while 12% said it was inevitable because of the abstracting process. One in ten (10%) mentioned that the treatment process must involve wastewater. Nine per cent were unsure.

**Figure 12: Why respondents think water is supplied using recycled wastewater in an unplanned way already**

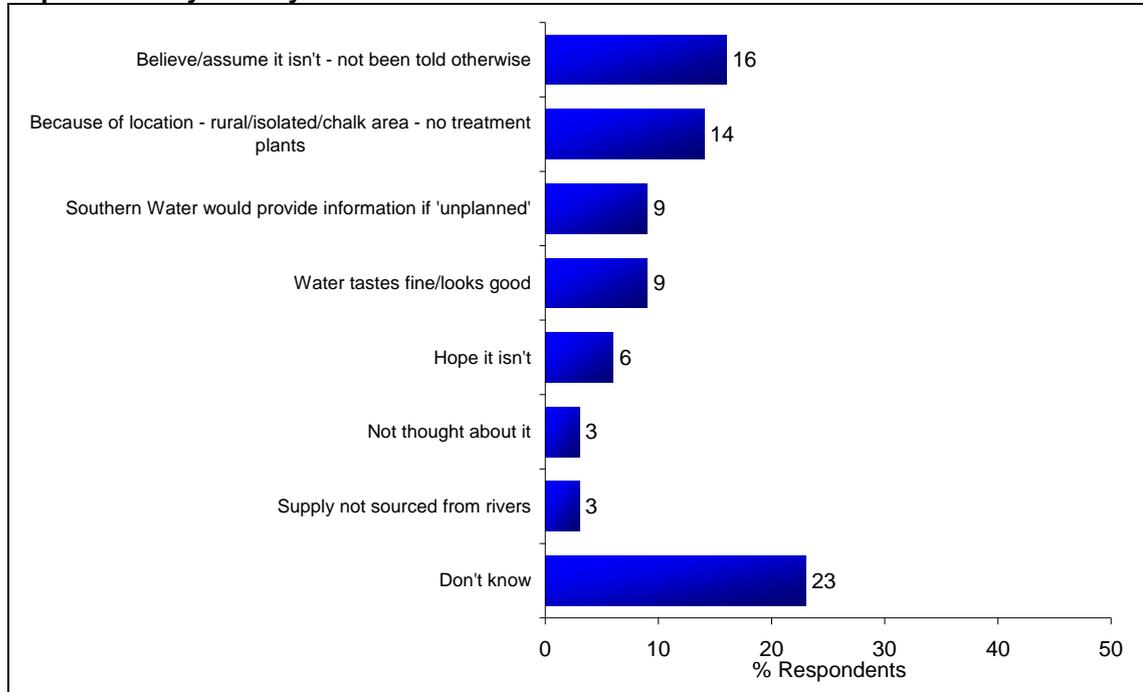


Base: all respondents who thought water was already being supplied using recycled wastewater (267)

NB: chart shows those reasons mentioned by 3% or more of respondents

Those who thought water **was not** already being supplied in this way most commonly felt this way because they hadn't been told otherwise (and therefore assumed it was not) (16%) and/or because of their location (14%). However, around one in four (23%) were not sure.

**Figure 13: Why respondents think water is not supplied using recycled wastewater in an unplanned way already**



Base: all respondents who thought water was not already being supplied using recycled wastewater (209)

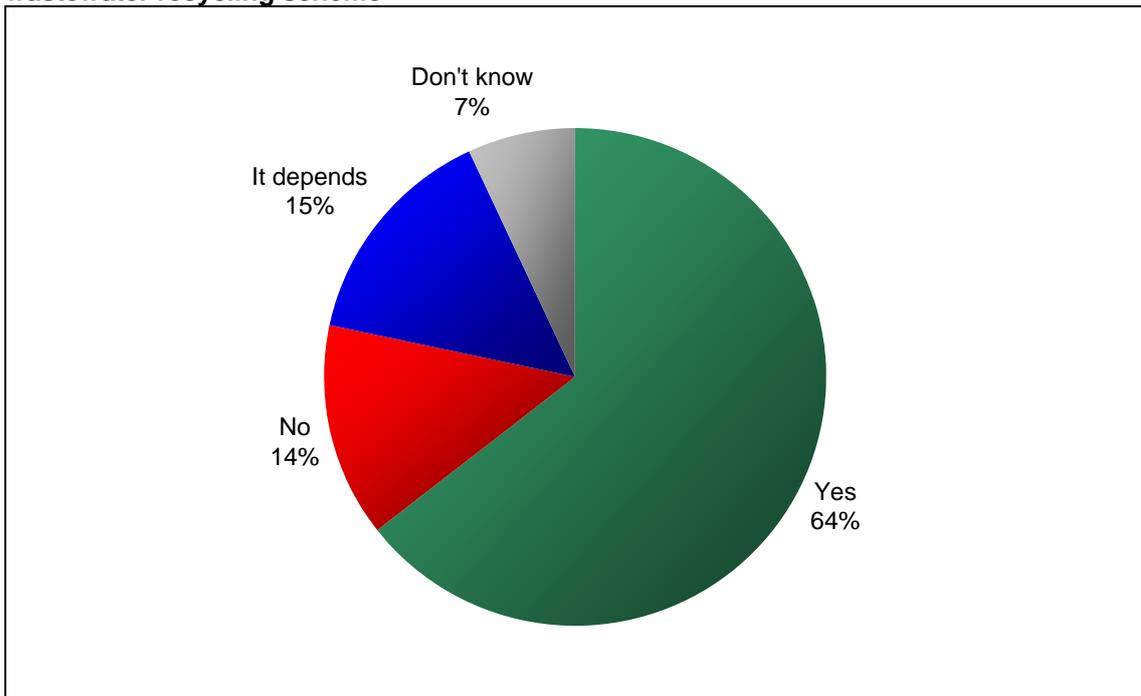
NB: chart shows those reasons mentioned by 3% or more of respondents

Around two in three respondents (64%) said they would be confident to drink tap water in their home as a result of a wastewater recycling scheme. One in seven respondents (14%) would not be confident to drink tap water as a result of this scheme, while a similar proportion (15%) said it would depend. Seven per cent of respondents were unsure whether they would feel confident or not.

Males were significantly more likely to say they would feel confident to drink tap water than females (74% and 59% respectively). Correspondingly, females were significantly more likely to say they would not feel confident to drink tap water as a result of a wastewater recycling scheme (16%, compared with 10% of males).

Unsurprisingly, those who already drink tap water (68%) were significantly more likely to feel confident than those who do not drink tap water (45%).

**Figure 14: Whether respondents would be confident to drink tap water as a result of a wastewater recycling scheme**

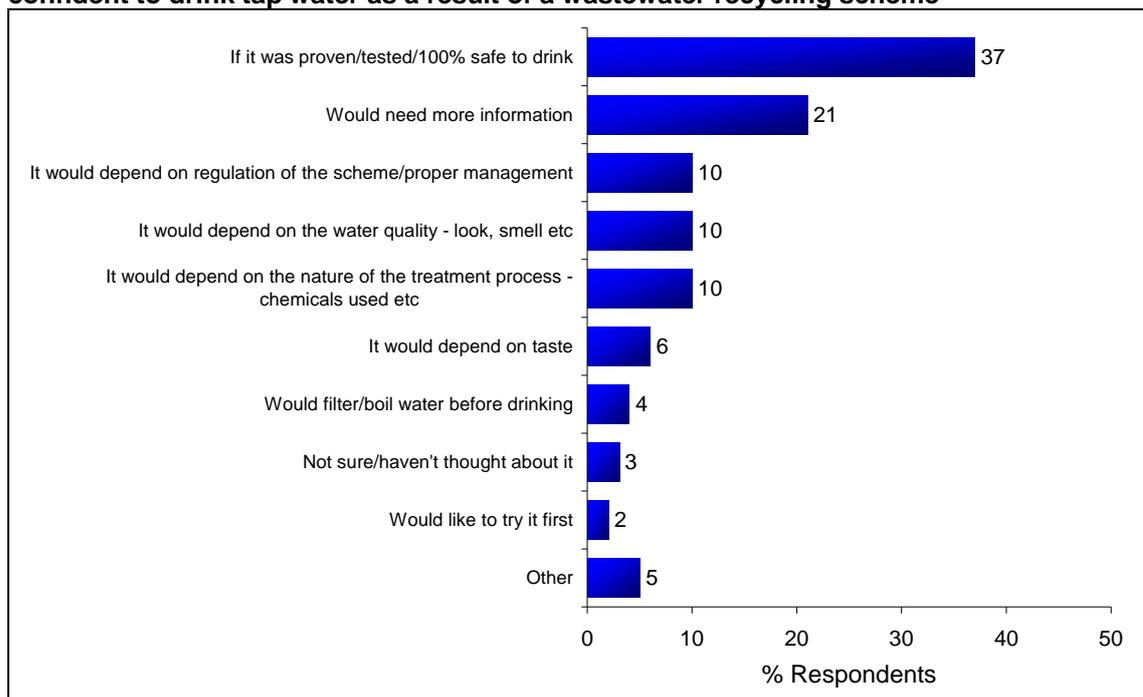


Base: all respondents (1,000)

Respondents who said it ‘would depend’ whether or not they would be confident to drink tap water as a result of a wastewater recycling scheme were asked what they meant by ‘it depends’. For just less than two in five (37%), it would need to be proven that the water was tested and completely safe to drink. Around one in five said they would need more information.

Those who do not currently drink tap water were significantly more likely than those who do to say it would depend on the taste of the water (23% and 4% respectively).

**Figure 15: Why respondents mean by it 'would depend' whether or not they would be confident to drink tap water as a result of a wastewater recycling scheme**



Base: respondents who said their confidence in drinking tap water 'would depend' (147)

Despite some reluctance to drink tap water that had been used in a wastewater recycling scheme, almost all respondents (91%) felt there were benefits to wastewater recycling. As might be expected, those who were already aware of use of wastewater in this way were more likely to perceive benefits than those who were unaware (93% and 86% respectively).

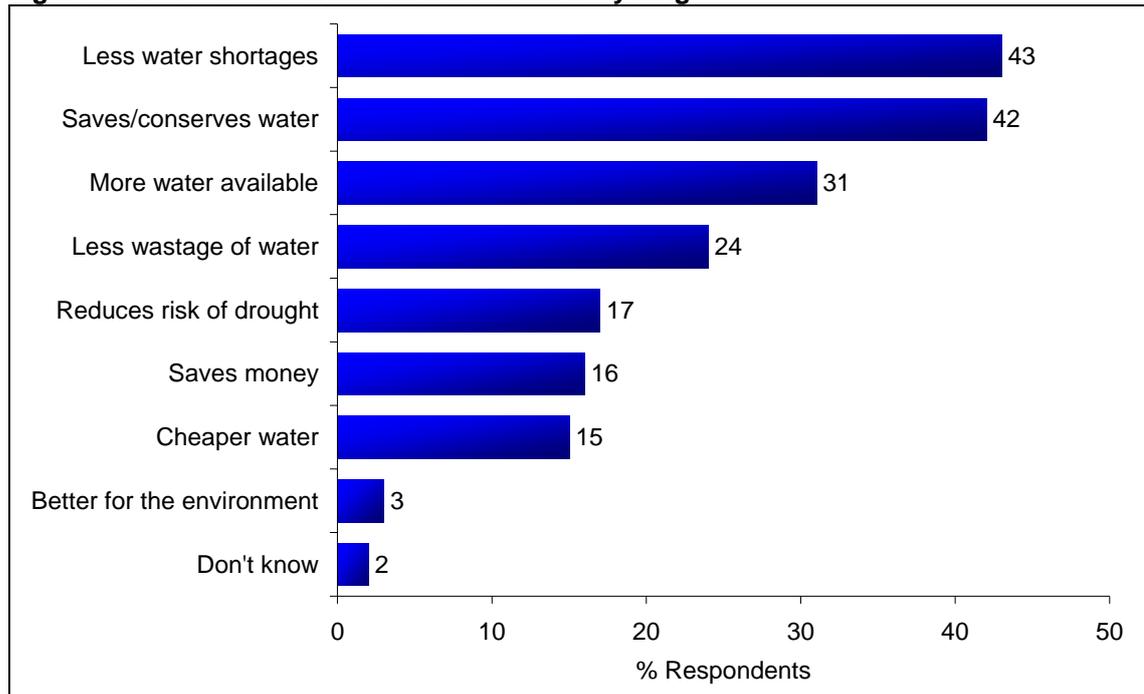
Those who felt there were benefits to wastewater recycling were asked to specify what these benefits might be. As shown in Figure 16 below, around two in five respondents felt that less water shortages (43%) and saving/conserving water (42%) were potential benefits of wastewater recycling. Other benefits mentioned by at least one in four of these respondents were more water available (31%) and less wastage of water (24%). Financial benefits such as cheaper water and saving money were less frequently mentioned than water conservation factors.

The qualitative work showed that nearly everyone perceived the same potential benefits, regardless of their view on whether wastewater recycling was a good idea; these included:

- to reduce the risk of water shortage
- to help with water conservation
- better for the environment

Another benefit suggested by many was that wastewater recycling could result in cheaper bills; the rationale being that 'if the water is recycled, it will be cheaper'.

**Figure 16: Perceived benefits of wastewater recycling**



Base: respondents who felt there were benefits to wastewater recycling (909)

NB: chart shows those benefits mentioned by 2% or more of respondents

Respondents were then asked if they felt there were any risks to wastewater recycling. Three in five respondents (60%) stated they thought there were risks involved.

As with benefits of wastewater recycling, those aware of this concept were significantly more likely (62%) to perceive risks than those who were unaware of this approach (55%).

Those with no faith/belief were significantly more likely to perceive risks to wastewater recycling than those who identified their faith/belief as Christian (65% and 56% respectively).

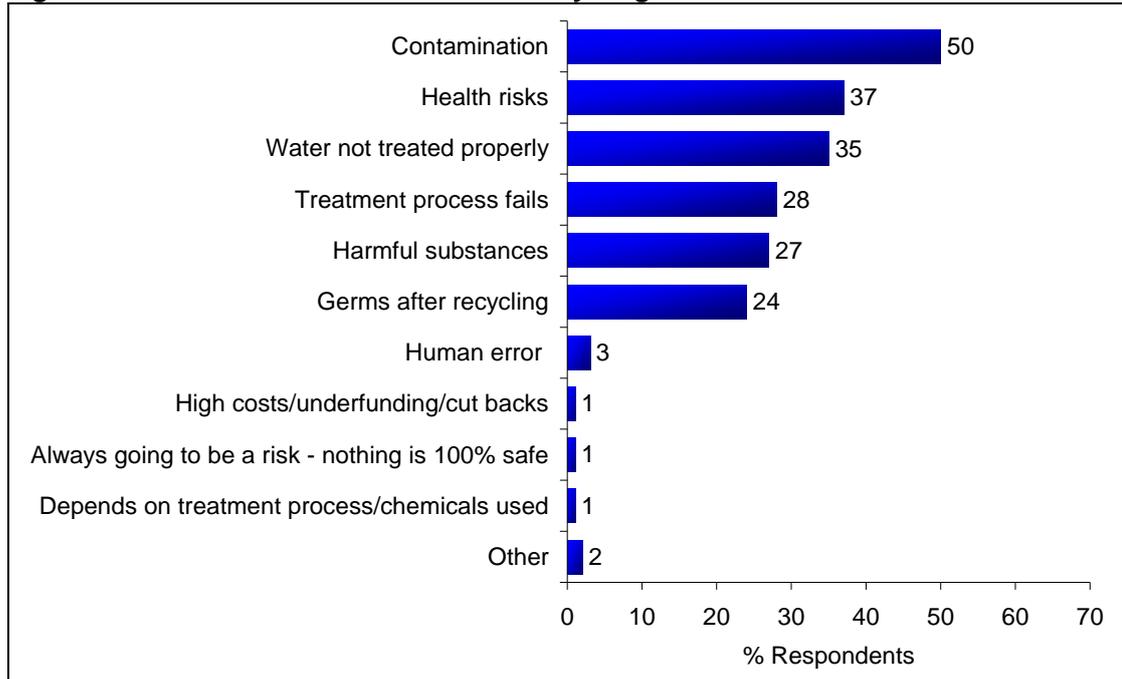
Although not statistically significant, perceptions of risks of wastewater recycling decreased with age; the youngest respondents were the most likely to think there were risks involved (67%) while the oldest respondents were the least likely (53%).

Similarly, those with a degree or higher degree were the most likely to perceive risks of wastewater recycling, although this difference was not statistically significant. Likelihood of perceiving risks generally increased with increasing household income.

Those who perceived risks to wastewater recycling were then asked to specify what they thought these risks were. Half (50%) mentioned that they thought contamination was a risk, while just over one in three mentioned health risks (37%) or water not being treated properly (35%).

The participants in the focus groups who were concerned about the risks of wastewater recycling were generally worried about long term effects to health posed by chemicals used in processing the water, but interestingly did not cite the chemicals in the wastewater. Specific risks that were mentioned included possible effects on health, possible increase in pollution, potential taste issues and increased costs.

**Figure 17: Perceived risks of wastewater recycling**

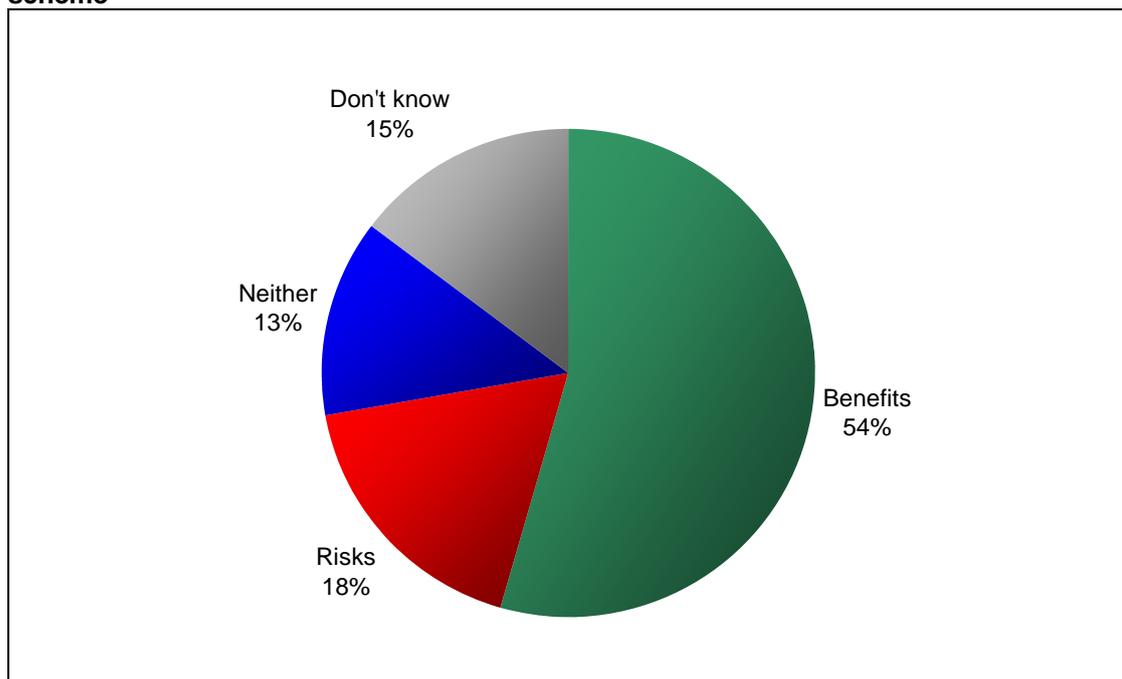


Base: respondents who felt there were risks to wastewater recycling (601)

In considering the benefits and risks of a wastewater recycling scheme, respondents were asked which they felt would have the greatest impact in influencing them towards whether the scheme was a good idea or not. As shown in Figure 18 below, just over half (54%) stated that the benefits would carry the most weight, while just less than one in five (18%) mentioned that the risks would have the greatest influence.

The focus groups also pointed to the fact that people felt that the benefits of wastewater recycling outweighed the risks.

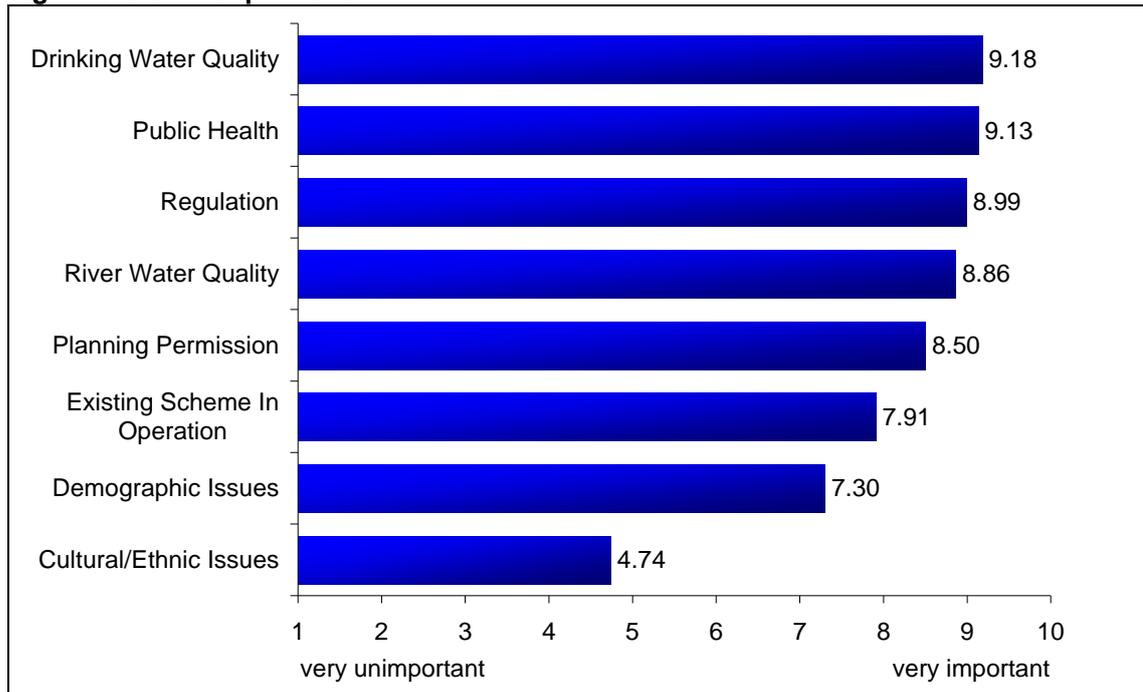
**Figure 18: Whether benefits or risks will have the greatest influence on perceptions of a scheme**



Base: all respondents (1,000)

Respondents were then read out some information on a number of issues that could or could not be important for Southern Water to address when thinking about implementing a wastewater recycling scheme. For each issue, they were asked to say on a scale of 1 to 10, where 1 = not at all important and 10 = extremely important, how important the issue was for them as a customer. The mean score received for each issue is shown in Figure 19 below. Drinking water quality (mean rating of 9.18) and public health (9.13) were the most important issues, followed by regulation (8.99) and river water quality (8.86). By comparison, cultural/ethnic issues were the least important for respondents, receiving a mean rating of only 4.74.

**Figure 19: Most important issues to customers**



Base: all respondents (1,000)

The graph above mirrors very well the findings from the qualitative phase where the rank order of the issues was virtually the same. In the focus groups, tap water quality and public health were seen as closely correlated by people with the two issues being of first or second most importance. Many said that the water has to be of good quality in order to drink it, as well as ensuring there would be no long term health implications; they wanted reassurance that the quality and safety of drinking water would not be compromised

People in the focus groups also said that proper regulation was important to ensure that rigorous quality standards are maintained as well as making sure that the environment and natural habitats are protected.

There were some significant differences by respondent profile.

Unsurprisingly, drinking water quality was significantly more important for those who drink tap water than those who do not (mean ratings of 9.22 and 8.91 respectively).

Regulation was significantly less important for those aged younger than 30 years (mean rating of 8.11) than those 30 years or older. It was less important for males (8.86) than

females (9.08) and for those who do not drink tap water (8.72, compared with 9.03 for those who drink tap water).

Demographic issues were most important for those aged 65 years or older (mean rating of 7.83) and significantly more important than for those aged between 30 and 64 years. They were also significantly more important for females (7.47) than for males (7.04).

Similarly, cultural/ethnic issues were significantly more likely to be more important to those aged 65 years or older (mean rating of 5.25) than those aged under 45 years. Females were also significantly more likely to give a higher importance ranking to cultural/ethnic issues than males (mean ratings of 4.92 and 4.48 respectively). Those from a non-white ethnic group were significantly more likely give a higher importance rating (6.09) than those from a white ethnic group (4.73). Respondents who identified their faith/belief as Christian were also more likely to give a higher importance rating to cultural/ethnic issues than those who said that they had no faith/belief (5.23 and 4.13 respectively).

In addition to the focus groups, a series of face to face interviews was carried out with Southern Water customers of different ethnicities, cultures and religions.

The overwhelming view from both the groups and the face to face depths is that culture, ethnicity and demographic issues are factors that should not play a big role in the debate. Indeed, everyone felt that water was essential to life and that everyone needs it and regardless of their religion or race. Most held the view that as more water would be available this would benefit all parts of society and most could not think why culture and ethnicity would be an issue, even amongst specific religions and/or ethnicities.

The only issue to emerge from the face to face depths was more of an habitual one, so that people who never drank tap water at home (e.g. Egypt, Pakistan); the prejudice is against tap water per se rather than where the water comes from per se.

### 3.6 Customer Engagement

A key part of this study is to provide Southern Water with pertinent information to inform its communication strategy about a potential wastewater recycling scheme. The focus groups identified two opposing views about the depth of information required: those that wanted a rudimentary level of information i.e. that the water is safe to drink and that standards are maintained and those that needed to be given an in depth explanation of wastewater recycling. Either way however, people felt the content of the information needed careful handling to avoid raising unfounded concerns, whilst also not being misleading.

Although not specifically asked about this within the survey, there are some key aspects of any communications campaign which emerged from the focus groups that need to be pointed out. Firstly, the tone of the communications is very important. Most believed a softer tone should be taken to ease people into the idea of wastewater recycling and its implementation; however, to some of the potential issues, there was a feeling that any communications should maintain a formality about them. It was also suggested that the communications be done in a way so that the whole family can be involved.

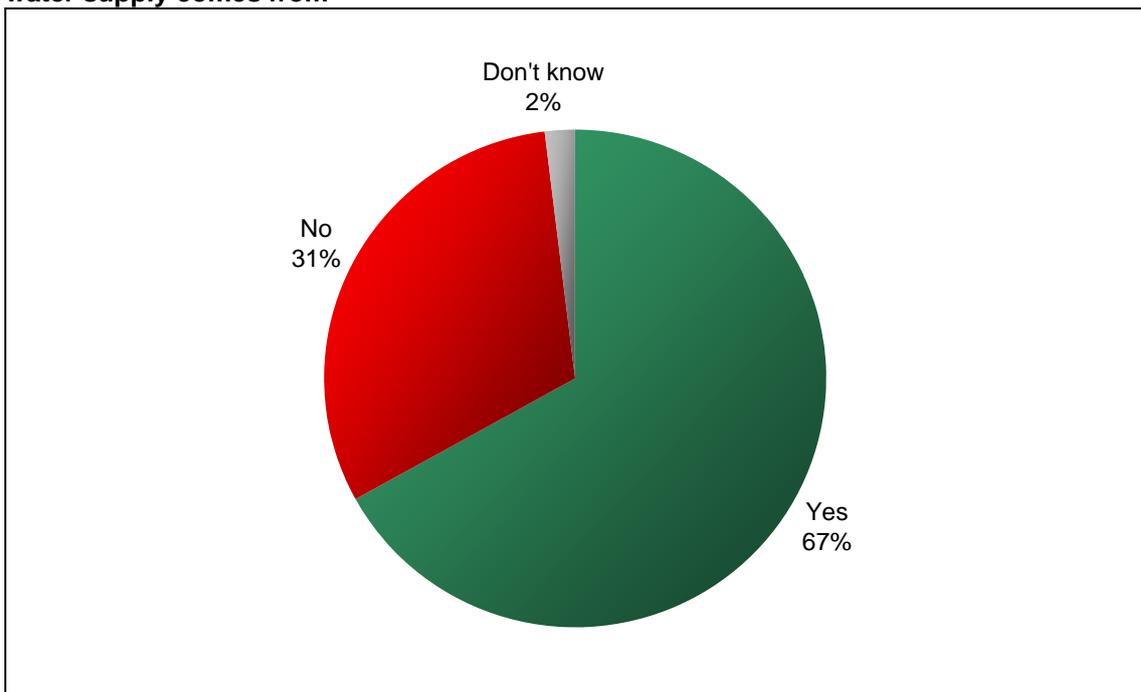
*“I think your idea of doing it in an informative way that will appeal to everyone with pictures and bright colours, is an absolutely brilliant idea”.*

As well as the tone of the communications, people also suggested that Southern Water should adopt a number of communication values such as being seen to take an impartial view and being “100% transparent”, as well as being completely ‘truthful’ and ‘honest’ People also felt that each key piece of information such as public health, river water and tap water should be conveyed clearly

Respondents were then asked whether they would need to be told where their water supply would actually come from in any communications exercise. In response, two in three (67%) said they would need to be told where the supply of water came from, while 31% said they would not need to know and 2% were unsure.

The only statistically significant difference was by gender; females were more likely to want to know where the water supply came from than males (71% and 61% respectively).

**Figure 20: Whether communications would need to contain information about where the water supply comes from**



Base: all respondents (1,000)

Similarly, the focus groups also showed a split between people who were not bothered about knowing where the water came from and those who were. The former group suggested that ‘if the water is safe to drink, what does it matter’ or ‘that as they could not do anything about it, they had no interest’. Then there were those who wanted to know simply because they had the right to.

*“As a consumer I have the right and want to know where that water is coming from so that I can make informed choices to whether I decide to drink the tap water”.*

In addition to this information, people in the focus groups were also interested in finding out other information such as:

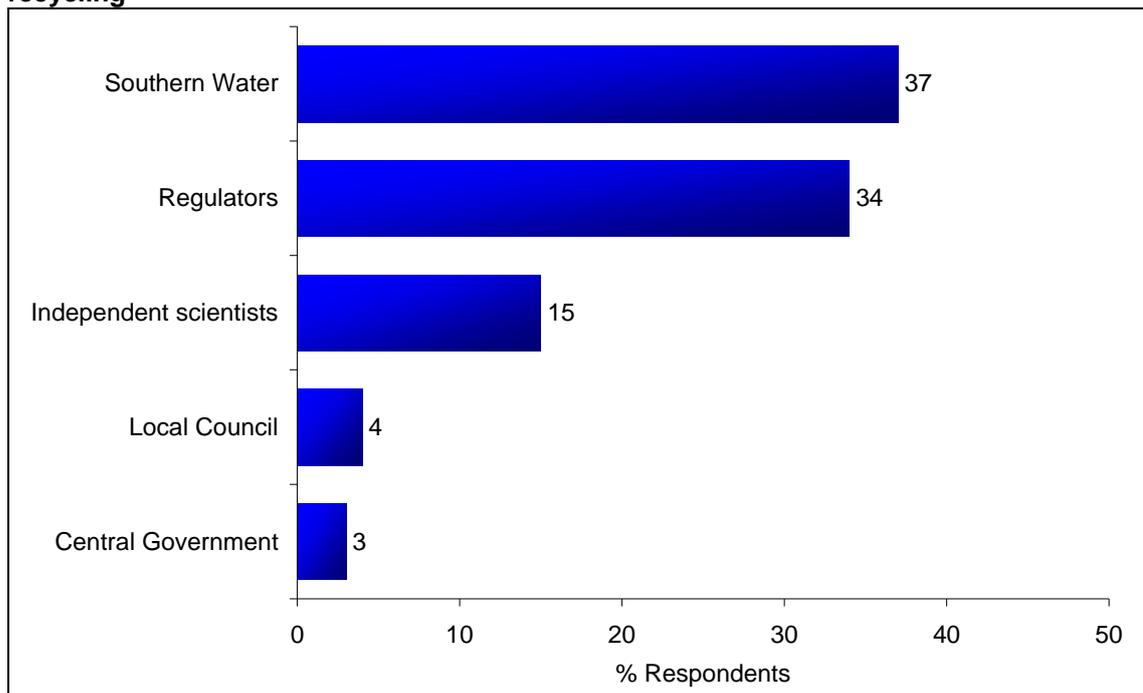
- what other options are being explored?
- why is wastewater recycling being considered above other options?
- why will more water be available?
- how is wastewater recycling that different to the current practice?
- why is water shortage such an issue?
- how will the prices be affected?
- what are the associated costs of WWR?

It is also worth noting from the focus groups what people thought was the most appropriate terminology for this type of scheme. A general theme emerged that the use of the word “Waste” should not be used as it has too many negative connotations. On the contrary, the word “Recycle” in the name was seen as a positive because of its association with the ‘green’ agenda and all the other types of recycling that people are actively engaged in. Some thought that ‘water re-use’ was quite good but many thought that ‘recycled water’ was better and more appropriate terminology.

In the survey, respondents were asked which company or organisation would you most trust to communicate the necessary information about wastewater recycling to them. The responses are shown in Figure 21 below. The organisations that were most trusted by respondents were Southern Water (37%) and regulators (34%).

Trust in Southern Water was significantly higher among females than males (41% and 32% respectively). It was also notably higher among those in SEG DE (45%), although this difference was only statistically significant when comparing between those in SEG B or C1.

**Figure 21: Organisations most trusted to communicate information about wastewater recycling**



Base: all respondents (1,000)

A similar picture emerged from the qualitative work where there a variety of responses were provided depending on the degree of trust or scepticism that people had towards Southern Water. The more sceptical wanted independent bodies and/or experts such as the Department of Health, the Environment Agency or Ofwat/a regulator; basically, 'qualified individuals, who really understand things'.

Others suggested a joint approach between the water company, DWI and the EA. Some were also happy with Southern Water being responsible for the communications as 'they know what they're talking about and they are already entrusted with supplying water'. However, virtually everyone agreed that politicians should not front any communications as they are 'mistrusted'.

Thinking about the most effective ways of engaging and communicating the benefits of a wastewater recycling scheme, respondents were asked to specify which sources they felt were the two most effective. Around half (49%) mentioned TV adverts, while letters (30%), leaflets (29%) and local press (22%) were also mentioned by at least one in five.

In the qualitative work, letters were seen as the traditional and cost effective way to contact customers, but it needed to be done in a personal way to avoid being overlooked and treated as 'junk mail'. A high profile media campaign on TV was also a popular idea, similar perhaps to the digital switchover campaign. Events where people could actively engage and discuss the changes and implications of wastewater recycling were also a communication channel favoured by some. A more innovative approach was also suggested using new methods of communication such as e-mail, or twitter for the younger generation.

Overall though, the focus groups highlighted a couple of methods where there was strong agreement about the most effective communication channels. One was an informative documentary, such as the government drink drive campaign. The other was face to face meetings which were considered ideal for giving people the opportunity to ask any questions, thus making it much more of a two way dialogue. As can be seen from Figure 20 below, all of these received various levels of support in the survey.

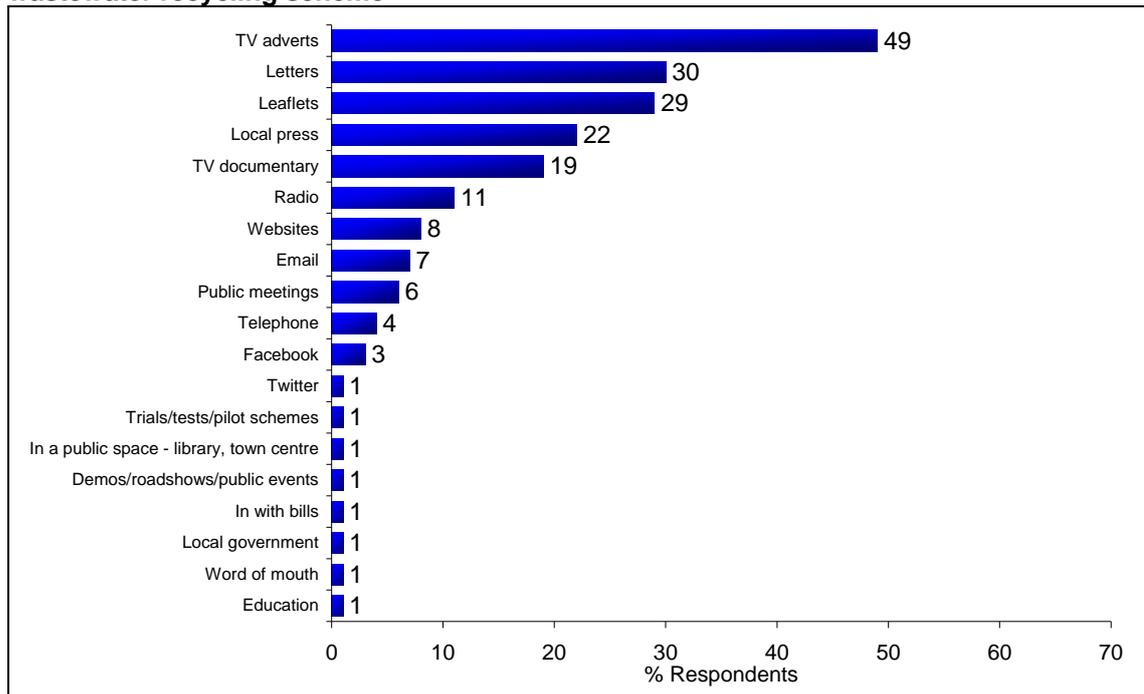
Unsurprisingly, in the survey, there were some differences by respondent profile. For example, females were significantly more likely to mention TV adverts than males (52% and 45% respectively).

As would be expected, Facebook and Twitter were significantly more likely to be mentioned by those under 30 years (11% of those under 30 mentioned Facebook and 7% mentioned Twitter).

Those aged 65 years or older were the most likely to mention local press (29%, significantly higher than just 4% of those aged under 30 years).

Respondents from a white ethnic background were also significantly more likely to mention local press than those from a non-white background (23% and 4% respectively), while those from a non-white ethnic background were significantly more likely to mention radio (26%, compared with 10% of those from a white ethnic background).

**Figure 22: Most effective ways of engaging and communicating the benefits of a wastewater recycling scheme**



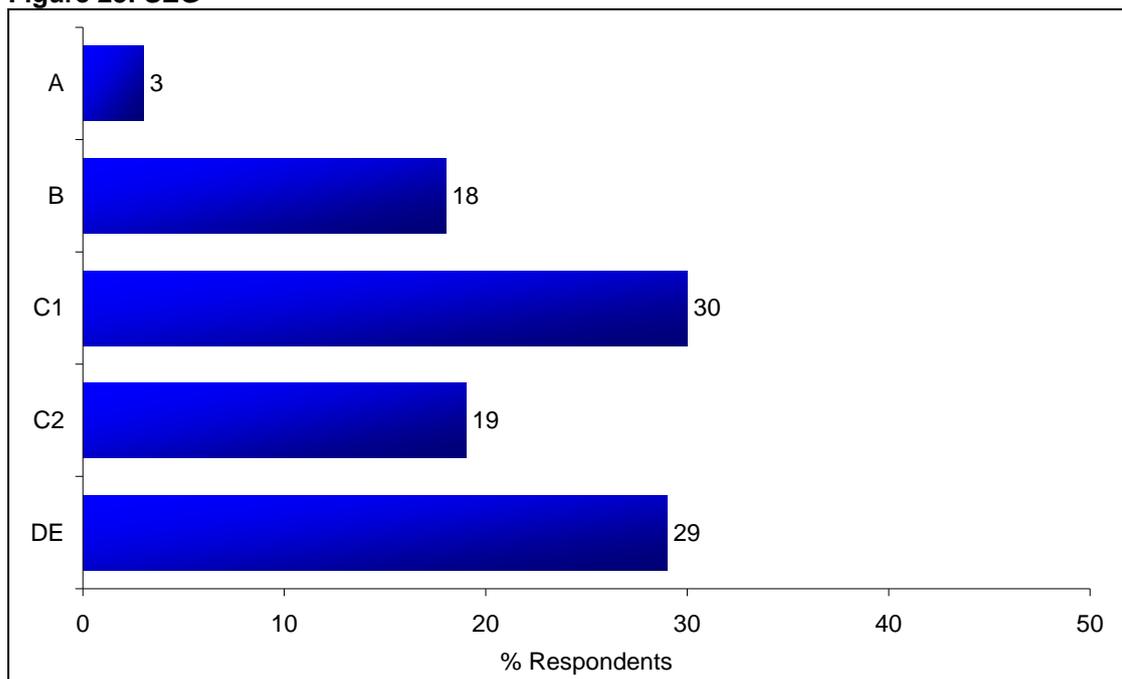
Base: all respondents (1,000)

NB: chart shows those ways mentioned by at least 1% of respondents

### 3.7 Survey Respondent Profile

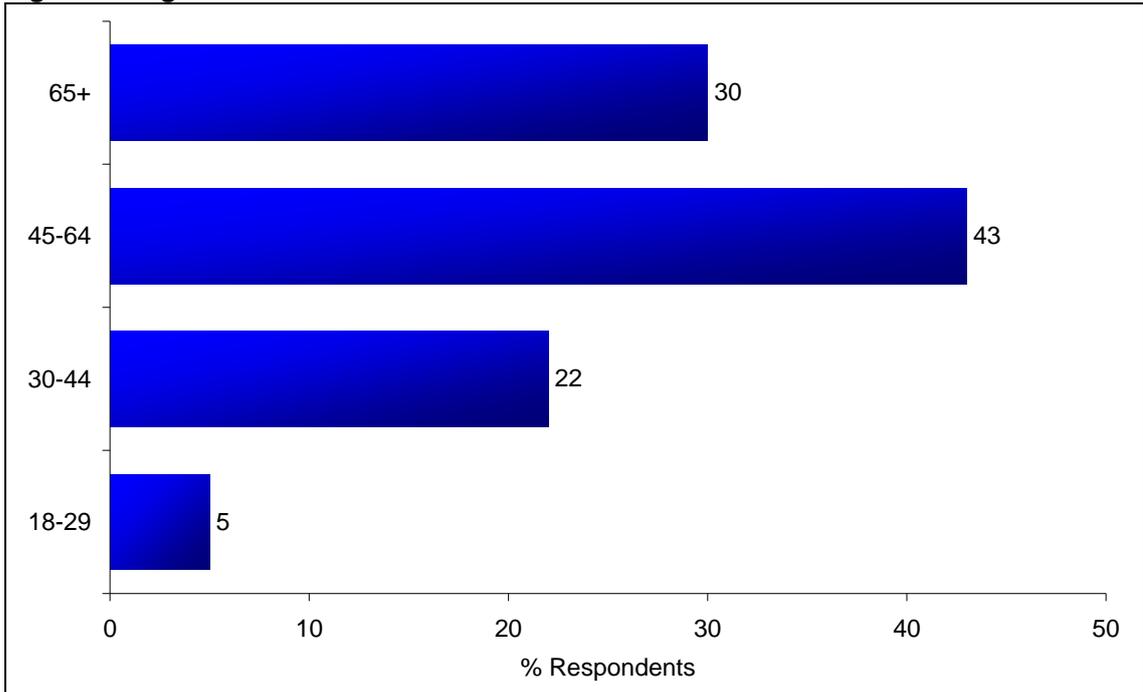
This last section details the profile of those people who took part in the survey and shows the breakdowns according to socio-economic grade, age, gender, lifestage, ethnicity, faith, education and household income.

**Figure 23: SEG**



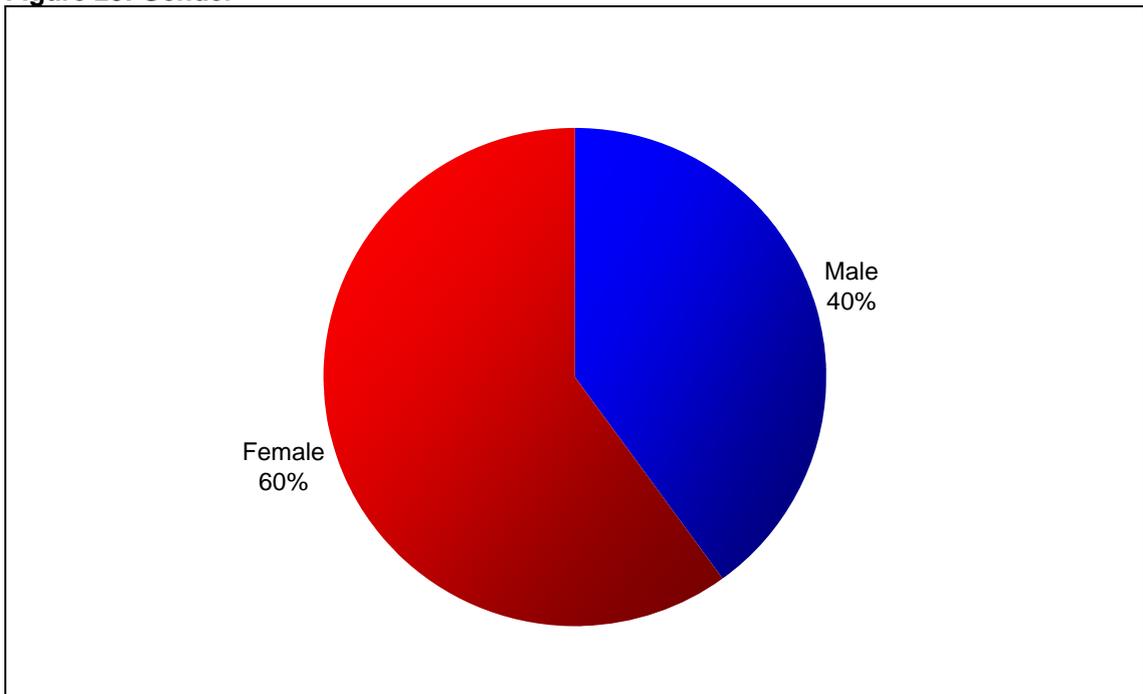
Base: all respondents (1,000)

**Figure 24: Age**



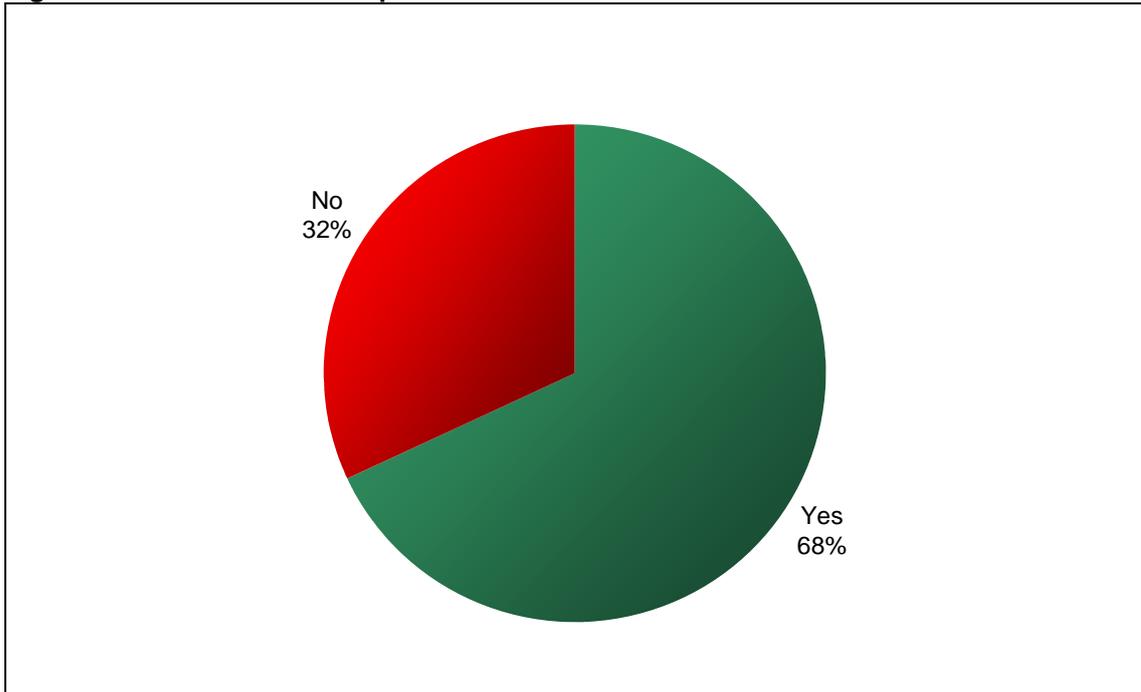
Base: all respondents (1,000)

**Figure 25: Gender**



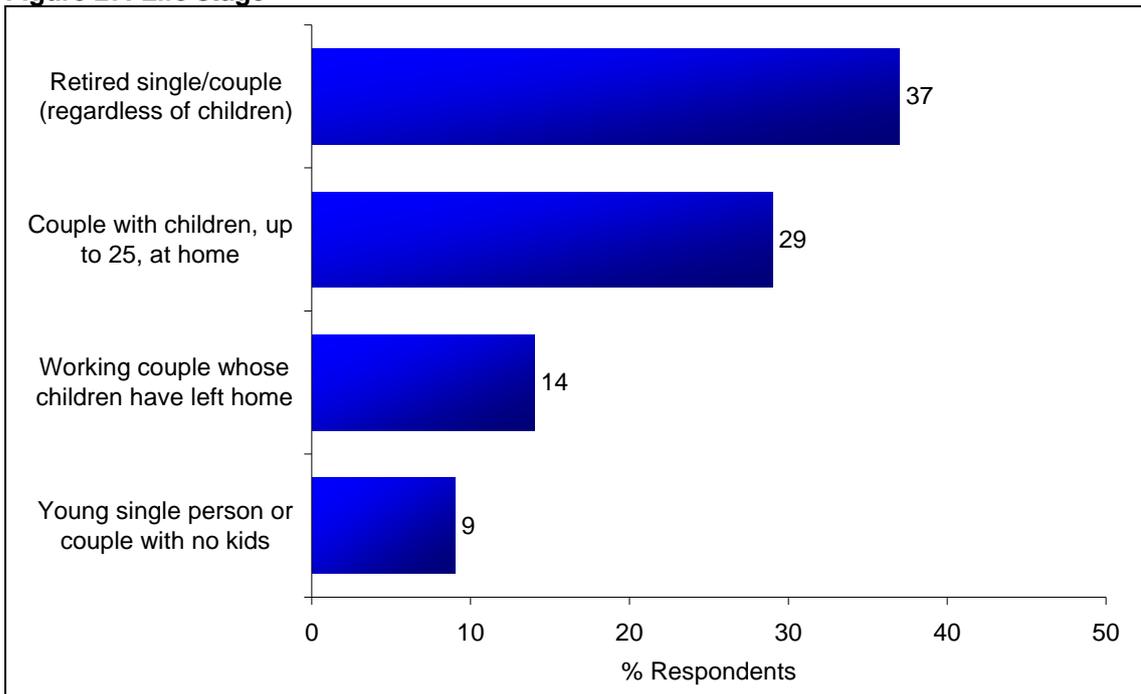
Base: all respondents (1,000)

**Figure 26: Whether or not respondents have a water meter**



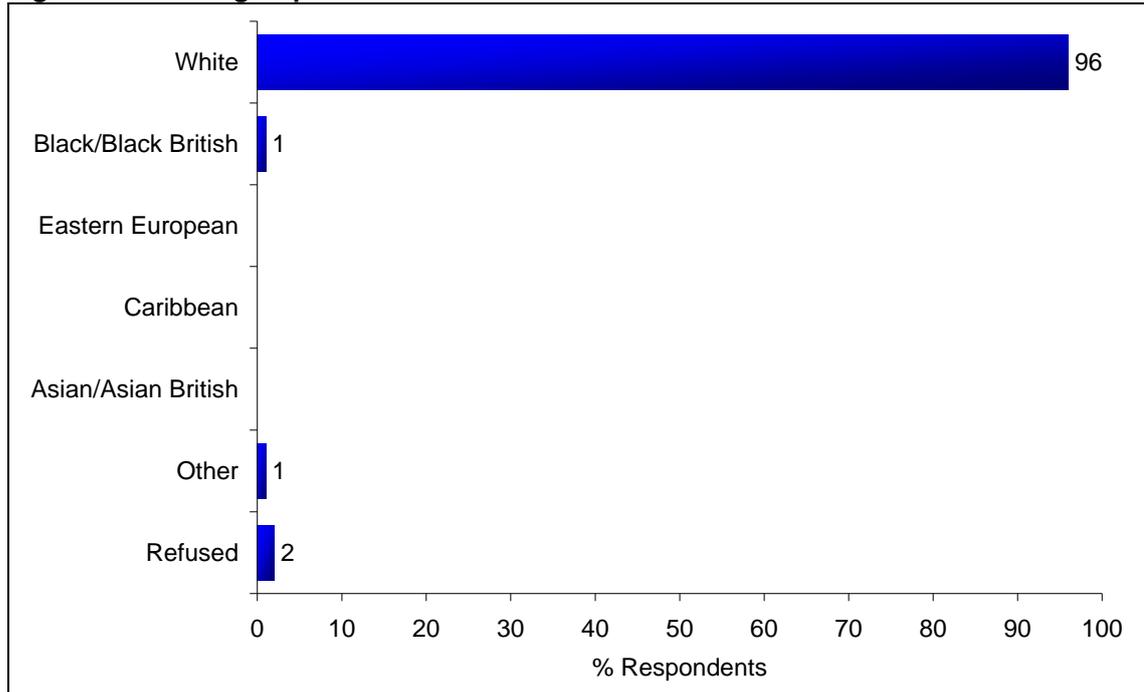
Base: all respondents (1,000)

**Figure 27: Life stage**



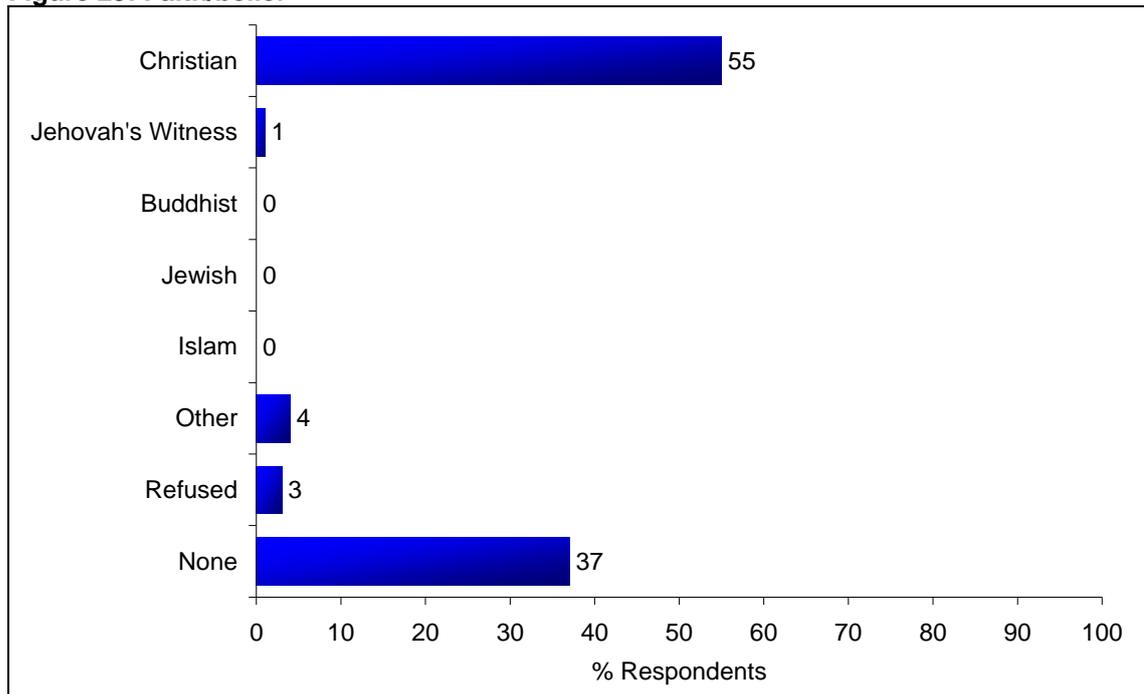
Base: all respondents (1,000)

**Figure 28: Ethnic group**



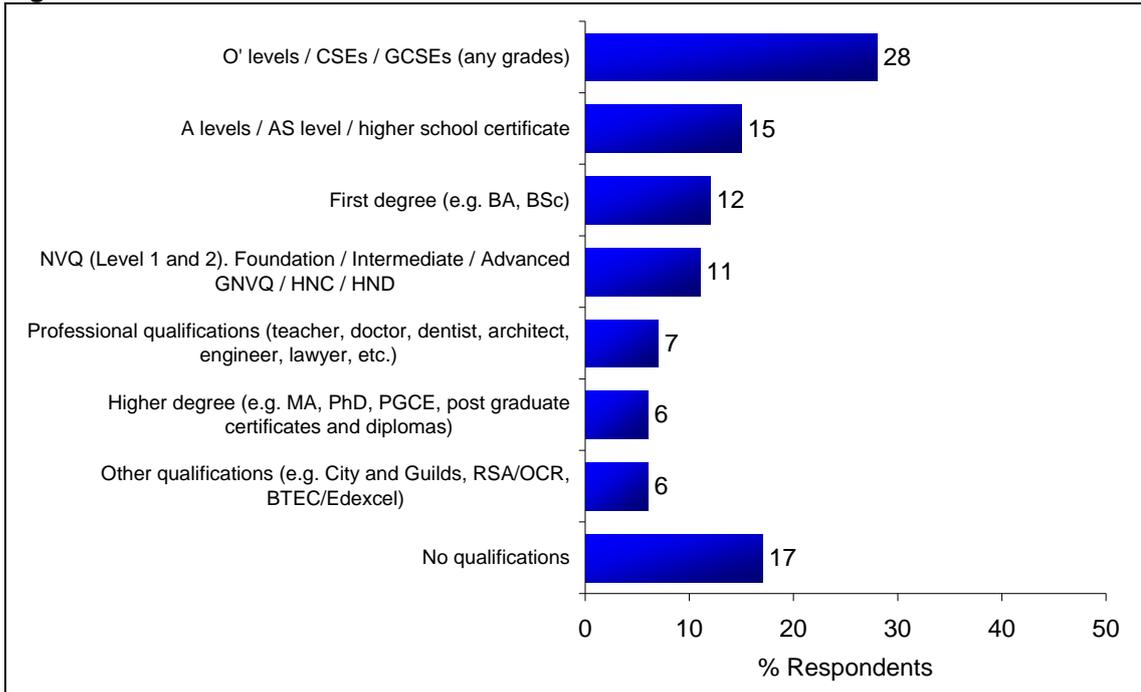
Base: all respondents (1,000)

**Figure 29: Faith/belief**



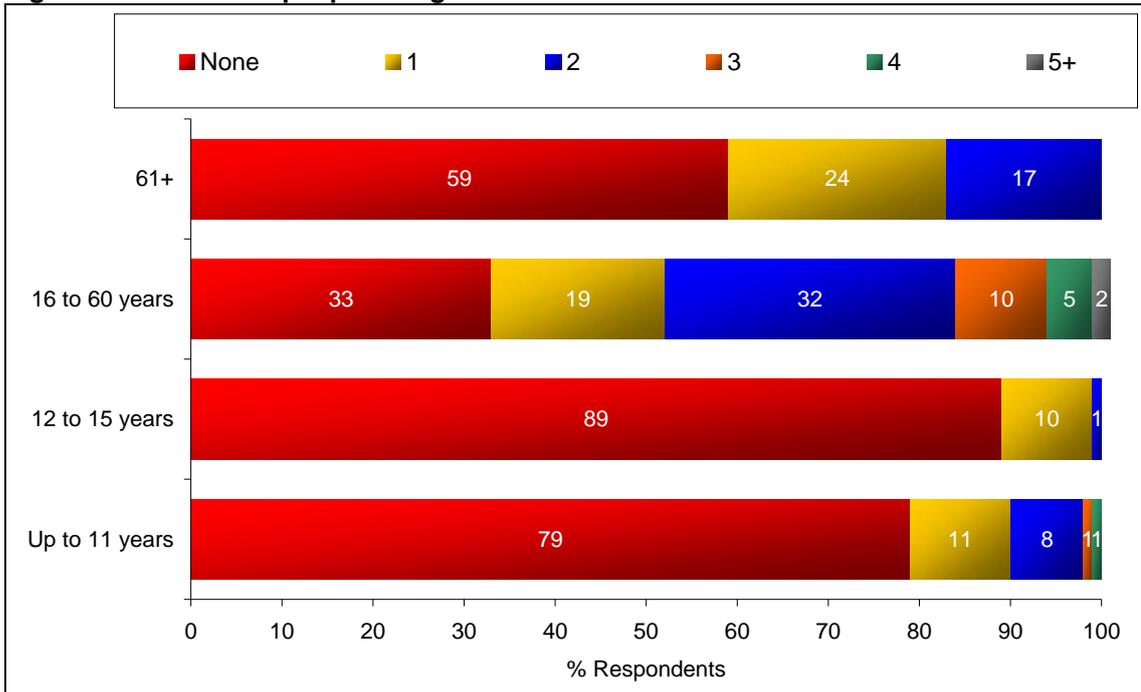
Base: all respondents (1,000)

**Figure 30: Education**



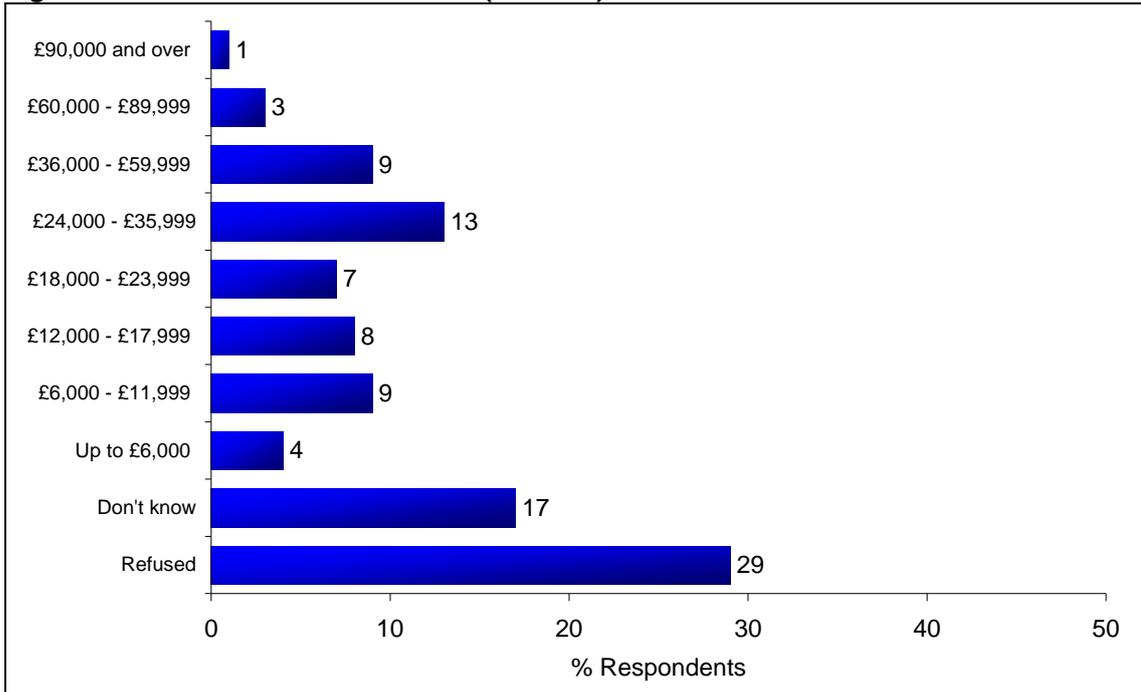
Base: all respondents (1,000)

**Figure 31: Number of people living in the household**



Base: all respondents (1,000)

**Figure 32: Annual household income (after tax)**



Base: all respondents (1,000)

## 4. CONCLUSIONS AND RECOMMENDATIONS

### **Attitudes and behaviours towards water usage**

The findings of both the qualitative and quantitative streams of work show very similar results. The majority of respondents drink tap water, including a significantly higher share of males and those from a white ethnic group. Two in three respondents rated their awareness of water related issues in the South of England as aware/very aware; however a similar proportion said they did not know where their water supply came from, including a significantly higher share of those who do not drink tap water. Overall, males and respondents aged 45 years or over appeared to show greater knowledge of water related issues. In terms of behaviour, most respondents try to use water carefully.

### **Attitudes towards water shortages and potential solutions**

Two in three respondents felt that it was likely there would be water shortages in the southern part of England in the future. In order to solve the issue of water shortages, almost half of the respondents mentioned that Southern Water should reduce leakage, by far the most frequently mentioned response. Females and respondents under 30 were the most likely to say they could not think of any solutions. Around one in eight respondents spontaneously mentioned wastewater recycling as a way to address water shortages. Interestingly, while the difference was not statistically significant, those aged under 30 years were the most likely to mention wastewater recycling. There is a strong degree of consistency in these findings across all the elements of the research – the focus groups, depth interviews and telephone surveys.

### **Awareness and understanding of wastewater recycling**

Regardless of the research methodology many people were familiar with the notion of wastewater recycling to some extent or other. Overall, just over two in three respondents had heard of wastewater recycling, including the one in eight who mentioned this unprompted. While those under 30 years were the most likely to mention this unprompted, overall they were the least likely to be aware of wastewater recycling, although this difference was not statistically significant. The data also suggests that respondents from a non-white ethnic background and those with a higher income are more likely to be aware of wastewater recycling, although these findings should be treated with caution as findings were not statistically significant and base sizes for some groups were low.

More than two-thirds of respondents were supportive of wastewater recycling, including just over one in three who were very supportive. Less than one in ten claimed to be unsupportive of using wastewater in this way. Although the qualitative work cannot provide robust proportions, most people were also supportive of wastewater recycling.

The telephone survey shows that those in SEG A, those in senior management and professional occupations such as doctors and lawyers, were the most supportive of waste water recycling and a significantly higher share were very supportive. Around half were unclear, however, whether water was already being supplied in this way.

Around two in three respondents said they would be confident to drink tap water in their home as a result of a wastewater recycling scheme, with around one in seven respondents saying they would not be confident. Males were significantly more likely to say they would feel confident to drink tap water than females as, unsurprisingly, were those who already drink tap water.

Both the qualitative and quantitative phases of the study reveal strong similarities about the benefits of wastewater recycling. Indeed, the telephone survey shows that even where there was some reluctance to drink tap water that had been used in a wastewater recycling scheme, almost all respondents felt there were benefits to wastewater recycling. The most frequently mentioned benefits were saving/conserving water and less water shortages, each mentioned by at least two in five respondents. Other benefits mentioned by at least one in four of these respondents were more water available and less wastage of water. Financial benefits such as cheaper water and saving money were less frequently mentioned than water conservation factors.

However, three in five respondents from the telephone survey also stated they thought there were risks involved, the most common risk being contamination, health risks or water not being treated properly. These results are very similar to the findings that emerged from the focus groups and depth interviews.

### **Customer engagement**

The most important issues for Southern Water to address when thinking about implementing a wastewater recycling scheme were considered to be drinking water quality and public health, while the least important factors were demographic issues and cultural/ethnic issues. Females and those aged 65 years or older were more likely to consider these issues as important.

When presenting the prospect of a wastewater recycling scheme it would be best if Southern Water did it with the help of regulatory bodies; more than one in three mentioned they would be most likely to trust Southern Water and/or regulatory bodies to deliver this information. Two in three respondents said that any communications would need to inform customers where the water supply came from.

Around half of the respondents felt the most effective way of engaging and communicating the benefits of a wastewater recycling scheme was TV advertisements. At least one in five mentioned letters, leaflets and local press. For those from a non-white ethnic background, radio was mentioned by one in four.

Each of the customer engagement conclusions above are all very consistent with the evidence that emerged from both the focus groups and depth interviews.

### **Summary**

Overall, the findings from the telephone survey indicate consistency with the findings from the qualitative phase of this research:

- Most respondents try to use water carefully
- The majority agree that water shortages are likely to happen

- Most respondents have no issue with wastewater recycling
- Almost all perceive wastewater recycling to have benefits and despite some concerns benefits carried more weight than risks for the majority
- The majority of respondents are happy to drink recycled wastewater which has been treated to the regulated standards
- Ensuring tap water quality, and that the water does not affect public health, are the most pressing issues that must be addressed
- When presenting the prospect of the wastewater recycling scheme it would be best if Southern Water did it with the help of regulatory bodies

The findings suggest that communications should focus on increasing understanding and awareness of wastewater recycling, including informing customers about water supply sources and potential benefits and risks of such a scheme, particularly among younger customers and female customers.

Respondent priorities when thinking about wastewater recycling appear to be focused on water supply quality and quantity and safety issues over and above cost savings. It is evident that working with regulatory bodies would likely generate the most trust and support among customers. Traditional means of communication such as TV advertisements, letters, leaflets and local press are considered the most effective but there may also be value in exploring the feasibility of social media and electronic forms of communication among younger customers and radio communications for those from a non-white ethnic background.

# APPENDIX A

## Face to Face Depth Summary

- The people that were interviewed as part of the series of face to face to depth interviews were not very well informed about the role and responsibilities of Southern Water. They were aware that the company provided water services but knew very little about its waste water responsibilities and/or its environmental credentials.
- None of the respondents could clearly remember receiving any communications from Southern Water.
- Respondents were not profligate in terms of water consumption but neither were they careful in their water usage; it was more a case of taking water for granted and using whatever was needed. Most of them were engaged sensible water conservation measures such as having showers instead of baths and full washing machine loads.
- There were mixed views about the increased likelihood of water shortages in the South East; some were aware of the situation and some really had little idea. The first group understood the contributing factors of an increasing population and the changing climate, while the latter struggled to articulate any reasons for potential water shortages. Overall though, there was a feeling that water shortages were unacceptable.
- Beyond 'using less water' and the imposition of hosepipe bans, this group of people struggled to think of any solutions to water shortages, including the obvious ones of reservoirs and desalination. Not surprisingly therefore, these respondents had not heard of wastewater recycling.
- When the concept of waste water recycling was explained to people, most struggled to understand the definition but when they grasped the fact that it was about more water could be made available, they thought it was a good idea.
- However, because of their lack of engagement with the topic, they found it hard to assess the benefits and risks spontaneously. When people were prompted with the key issues that would need consideration as part of any waste water recycling scheme, the order of importance was very similar to that of the focus groups, and subsequently the quantitative survey, where drinking water quality, public health and regulation issues were all considered much more important than cultural and/or demographic issues.
- The only issue to emerge from the face to face depths was more of an habitual one, in that people who never drank tap water at home (e.g. Egypt, Pakistan); the prejudice is against tap water per se rather than where the water comes from per se. That said, all but one of the people interviewed drank tap water and would continue to do so in the event of waste water recycling being introduced. There was one lady who did not drink tap water because she did not like the taste.
- It is difficult to be conclusive about the most appropriate and effective way of communicating the benefits of a waste water recycling scheme to this 'segment', especially as the topic did not resonate to any great degree and also because they were unlikely to engage with any form of communication from Southern Water. If there was any preference, it erred on the side of traditional communication channels such as telephone and letters.

# APPENDIX B

## Topic Guide



Moderator: .....

Group: .....

Date: .....

Time: .....

Venue: .....

Good evening... My name is ... and I work for an independent market research company called Accent. We are conducting research for Southern Water looking at water resources. Thank you very much for agreeing to help us with this research and for being here this evening.

The research is being conducted in accordance with the Code of Conduct of the Market Research Society (MRS) and also with the Data Protection Act, with whom Accent is registered. This means that everything you say here this evening is confidential and will not be attributed to you personally.

The discussion is also being tape-recorded. This is standard market research procedure and is to ensure accuracy – so I do not have to try to remember what you have said – and for analysis purposes only. The recordings will not be passed to any third party not associated with the research project, and I assure you that none of your comments will be attributed to you by name.

The discussion will last around 90 minutes.

Can I stress that we are looking for your views. There are no right or wrong answers. I hope you will all contribute to the discussion.

**Participants introduce themselves**

- Name,
- Occupation
- How many people at home

**General Discussion about Southern Water**

First off, I'd really like to start by having a general discussion about Southern Water

- How would you describe its role?
- What sorts of things would say it is responsible for? (Probe around water and wastewater services, environmental issues, investment in water & sewerage pipes.)
- What communications do you receive from them?

## Attitudes to Water Usage and Behaviours

Thinking specifically about your water usage now.

- How would you describe your current attitude towards using water? What sort of words/phrases would you use e.g. thoughtful, conscientious, wasteful, use what I need, use what I want etc
- How important is it for people to reduce the amount of water they use? And why do you say that?
- And what sort of things do you do to reduce your water consumption?
- What are the barriers to you reducing your water usage?

## Attitudes to Water Shortages & Potential Solutions

- What do you feel about the increased likelihood of water shortages in this part of the country?
- What are the factors behind the increased likelihood of water shortages? *Probe on changing climate patterns, increased housing/population putting greater strain on demand etc*
- How acceptable are they?
- What sort of things could Southern Water do to solve the issue of water shortages?  
For each thing mentioned what are the advantages and disadvantages?  
**Moderator:** *please note spontaneous mention of wastewater recycling*
- And how effective do you think each of these suggested solutions are?

## Awareness & Understanding of Planned Wastewater Recycling

If not mentioned above explain to the group that one solution for overcoming water shortages in the future is wastewater recycling.

- Has anyone heard of a concept called **wastewater recycling**?  
If yes, in what context have you heard about it? (*check the depth of respondent understanding*)
- In the context of increasing the amount of water available for supply, what do you think water wastewater recycling is?

*Moderator – note the explanation on other sheet....*

- What is your immediate response to that explanation? Does it make sense? Do you understand it?
- What do you think and feel about indirect wastewater recycling as a potential solution for providing an alternative source of water?
- What do you feel are the potential benefits of a wastewater recycling scheme? And the risks?
- How would a wastewater recycling scheme affect how you use water in the home?
- Would you carry on drinking water that had been supplied in this way? Why/Why not?

## Customer Engagement Activities

- What do you think is the most appropriate term to use for these schemes? Wastewater recycling, water re-use, something else? Why?
- In thinking about indirect wastewater recycling, not direct wastewater recycling, as an alternative source of water, what would you say are the key issues that Southern Water needs to address?  
    Prompt with the following as appropriate:
  - public health
  - regulation
  - water quality
  - has it been done before
  - ethnicity, cultural issues & religious beliefs
  - planning permission
  - demographic factors e.g. lifestage, age & income
- Which of these factors are most/least important?
- Why are some more important than others?
- What would you say are the key messages to get across in any programme of communications?
- And what are your views about the most effective way of engaging and communicating the benefits of a wastewater recycling scheme?  
    What are the most effective/appropriate communication channels e.g. TV, radio, press, social media, new media, letters, telephone etc  
    What tone of voice is most appropriate in any form of communications?

## Wrap & Close

- We're about to finish now, but before we do, is there any last pressing point that you want to mention about this subject?

Before you leave tonight, I have some information that I would like to hand out. Please read through the information and we will reconvene again in a few days to talk about the subject information. – *Moderator: Check respondents understand the contents before they depart?*

As you go through the various facts and information, please make a note of the key things that strike you as we want to talk in more detail next week about those things that influence your views and attitudes.

To assist in your deliberations you have a feedback sheet with four key questions to answer. I'd like you to complete these and when we come back next week, please come prepared to feedback your views.

Thank you very much.

## APPENDIX C

### Questionnaire

Interviewer no:  Interviewer name:

Date:  /  Time interview started:  :

**Recruitment**

Good morning/afternoon/evening. My name is ..... from Accent and I am carrying out research for Southern Water looking at water resources. Any answer you give will be treated in confidence in accordance with the Code of Conduct of the Market Research Society.

Q1. Can you tell me who supplies your water and sewerage service?

- Southern Water – both water and sewerage **CONTINUE**
- Southern Water – water **CONTINUE**
- Southern Water – sewerage **THANK & CLOSE**
- Other **THANK & CLOSE**
- Don't know **THANK & CLOSE**

Q2. Are you the person in your household who is responsible – either solely or jointly - for paying your household's water and sewerage bill(s)?

- 1 yes
- 2 no **THANK & CLOSE**

Q3. Do you or any of your close family work or have you worked in the recent past in any of the following professions: marketing, advertising, public relations, journalism, market research or the water sector?

- 1 yes **THANK & CLOSE**
- 2 no

Q4. What is the job title of the chief wage earner of your household or, if you are the chief wage earner, your own job title?

**IF SELF-EMPLOYED: MANUAL/NON-MANUAL, SKILLED/QUALIFIED OR NOT, NUMBER OF EMPLOYEES**  
**IF MANAGER/EXEC: TYPE OF INDUSTRY, NUMBER OF EMPLOYEES AND MANAGEMENT STATUS**  
**IF RANK/GRADE (CIVIL SERVANT, NURSING, MILITARY, NAVY, POLICE ETC.) RECORD SPECIFICALLY**  
**IF PENSIONERS: ASK IF STATE (GRADE "E") OR PRIVATE PENSION (GRADE ON PREVIOUS OCCUPATION)**  
**IF UNEMPLOYED: IF MORE THAN 6 MONTHS (GRADE "E"), IF LESS (GRADE ON PREVIOUS OCCUPATION)**

What are/were his/her/your qualifications/responsibilities? **PROBE**

**WRITE IN AND CODE SEG** .....

- 1. A
- 2. B
- 3. C1
- 4. C2
- 5. DE
- 6. Not stated **THANK & CLOSE**

Q5. How old were you on your last birthday?

**CODE AGE BAND BELOW:**

- 1. 18-29
- 2. 30-44
- 3. 45-64
- 4. 65+
- 5. refused **THANK & CLOSE**

Q6. Gender

- 1 Male
- 2 Female





---

Q19. Would you be confident to drink tap water in your home as a result of a wastewater recycling scheme?

1. Yes
2. No
3. It depends
4. Don't know

---

Q20. Can you explain what you mean by 'it depends'?. **INTERVIEWER: PROBE ANY 'NO' RESPONSE' ALSO REASONS WITH ANYTHING ELSE**

---

Q21. Do you think there are any benefits to wastewater recycling?

1. Yes
2. No **GO TO Q23**

---

Q22. And what do you think those benefits are?

1. Less water shortages
2. Saves/conserves water
3. Less wastage of water
4. More water available
5. Reduces risk of drought
6. Cheaper water
7. Saves money
8. Other (specify)

---

Q23. Do you think there are any risks to wastewater recycling?

1. Yes
2. No **GO TO Q25**

---

Q24. And what do you feel those risks are?

1. Contamination
2. Harmful substances
3. Health risks
4. Germs after recycling
5. Water not treated properly
6. Treatment process fails
7. Other (specify)

---

Q25. In considering the benefits and risks of a wastewater recycling scheme, which do you feel will have the greatest impact in influencing you towards whether this is a good idea or not?

1. Benefits
2. Risks
3. Neither
4. Don't know

---

Q26. I'm going to read out some information on a number of issues that could or could not be important for Southern Water to address when thinking about implementing a wastewater recycling scheme. For each issue, please say on a scale of 1 to 10, where 1 = not at all important and 10 = extremely important, how important are each of the following issues to you as a customer that Southern Water needs to address? **INTERVIEWER READ OUT SECTIONS ON THE FOLLOWING:**

**ROTATE INFORMATION**

**PUBLIC HEALTH** - The key public health issues relating to wastewater recycling are the potential risks from changes in chemical and microbiological quality of the water we abstract from the river. In particular, the quality of the raw water and the level of treatment that is required to ensure the drinking water complies with the appropriate water quality standards. These standards are derived from the World Health Organisation standards

**DRINKING WATER QUALITY** - There are about 50 standards covering chemical, microbiological and aesthetic parameters that are monitored to ensure your tap water is safe to drink. Where failures occur, a water company must explain the reasons to the Drinking Water Inspectorate and depending on the circumstances and the severity, the DWI would require a remedy either through negotiation or the issue of enforcement notices

**RIVER WATER QUALITY** - The Environment Agency will want the water company to demonstrate that the move of any discharge point will not impact on the river water quality (chemical content) and aquatic life (plants and animals) both downstream of the existing discharge point and any new discharge point.

**REGULATION** - the Environment Agency (EA) and the Drinking Water Inspectorate (DWI). Both regulators would ensure that legislation and standards are complied with before a scheme can be operated.

For any new scheme, the EA would provide a discharge permission for the new discharge point, which would state the quality and quantity of the wastewater that can be discharged into the river.

The DWI's responsibility is primarily to regulate the quality of water that enters the drinking water supply and which is delivered to customers' taps. It regulates compliance on about 50 standards covering chemical, microbiological and aesthetic parameters

**PLANNING PERMISSION** - The planning system plays a key role in protecting and improving the natural environment, public health and safety. For a wastewater recycling scheme to be granted planning consent a Local Planning Authority must be confident that appropriate controls are in place (usually imposed through planning conditions) to ensure that the development can proceed without negative effects on the local environment or on human health and well-being. The proposals would be assessed against relevant national, regional and local planning policy and guidance, including that concerning pollution control.

**EXISTING SCHEME IN OPERATION** - The Langford recycling scheme in Essex uses biological, chemical and ultraviolet light treatments to disinfect and remove harmful chemicals from wastewater. The treated water is released back into the river, providing more water for pumping to a reservoir and for a water treatment works.

The scheme, opened in 2003, is the first of its kind in the UK. There was close collaboration with the Environment Agency and the Drinking Water Inspectorate during its development. It provides up to 30 million litres of water a day, equivalent to 17.8 Olympic-sized swimming pools and represents 8% additional water resources.

**DEMOGRAPHIC ISSUES** – age, gender, presence of babies and/or young children in the household

**CULTURAL/ETHNIC ISSUES** – factors that might be relevant depending upon peoples' backgrounds and cultures, their ethnicity and their faith

**RANDOMISE ORDER**

1. Public health	1	2	3	4	5	6	7	8	9	10
2. Drinking water quality	1	2	3	4	5	6	7	8	9	10
3. River water quality	1	2	3	4	5	6	7	8	9	10
4. Regulation	1	2	3	4	5	6	7	8	9	10
5. Planning permission	1	2	3	4	5	6	7	8	9	10
6. Existing scheme in operation	1	2	3	4	5	6	7	8	9	10
7. Demographic issues	1	2	3	4	5	6	7	8	9	10
8. Cultural / ethnic issues	1	2	3	4	5	6	7	8	9	10

---

Q27. We have read out some key information you may want to know in relation to wastewater recycling. Which company or organisation would you most trust to communicate the necessary information to you?

1. Southern Water
2. Regulators, e.g. The Environment Agency, DWI, Ofwat
3. Central Government
4. Local Council
5. Independent scientists
6. Other (specify)

---

Q28. What do you think are two the most **EFFECTIVE** ways of engaging and communicating the benefits of a wastewater recycling scheme? **DO NOT READ, MULTICODE**

1. TV documentary
2. TV adverts
3. Radio
4. Telephone
5. Email
6. Facebook
7. Twitter
8. Letters
9. Leaflets
10. Public meetings
11. Websites
12. Local press
13. Other (specify)

---

Q29. And as part of any communications exercise, would you need to be told where your water supply would actually come from?

1. Yes
2. No

---

I just have some final few questions which are for classification purposes.

Q30. Do you have a water meter?

1. Yes
2. No

---

Q31. Please can you tell me which of the following life-stages you are at? **READ OUT**

1. Young single person or couple with no kids
2. Couple with children, up to 25, at home
3. Working couple whose children have left home
4. Retired single/couple (regardless of children)

---

Q32. To which of these ethnic groups do you belong? **READ OUT**

1. White
2. Asian/Asian British
3. Black/Black British

4. African
5. Caribbean
6. Chinese
7. Eastern European
8. Other (specify)
9. Refused

**Q33. And what faith or belief do you follow? READ OUT**

- 1 Christian
- 2 Islam
- 3 Sikh
- 4 Hindu
- 5 Jewish
- 6 Jehovah's Witness
- 7 Buddhist
- 8 Other (specify)
- 9 None
- 10 Refused

**Q34. At what level did you complete your education? If still studying, which level best describes the highest level of education you have obtained until now?**

- 1 'O' levels / CSEs / GCSEs (any grades)
- 2 A levels / AS level / higher school certificate
- 3 NVQ (Level 1 and 2). Foundation / Intermediate / Advanced GNVQ / HNC / HND
- 4 Other qualifications (e.g. City and Guilds, RSA/OCR, BTEC/Edexcel)
- 5 First degree (e.g. BA, BSc)
- 6 Higher degree (e.g. MA, PhD, PGCE, post graduate certificates and diplomas)
- 7 Professional qualifications (teacher, doctor, dentist, architect, engineer, lawyer, etc.)
- 8 No qualifications

**Q35. Thinking about all the people in your household, including yourself, please indicate how many people there in each age group**

Up to 11 years .....	0.....	1.....	2.....	3.....	4.....	5+
12 to 15 years .....	0.....	1.....	2.....	3.....	4.....	5+
16 to 60 years.....	0.....	1.....	2.....	3.....	4.....	5+
61+ .....	0.....	1.....	2.....	3.....	4.....	5+

**Q36. What is your total household income after tax?**

PER MONTH	PER YEAR	(circle one)
Up to £500	Up to £6,000	1
£500 - £999	£6,000 - £11,999	2
£1000 - £1499	£12,000 - £17,999	3
£1500 - £1999	£18,000 - £23,999	4
£2000 - £2999	£24,000 - £35,999	5
£3000 - £4999	£36,000 - £59,999	6
£5000 - £7499	£60,000 - £89,999	7
£7500 and over	£90,000 and over	8
Don't know		
Refused		

**Q37. And can you please tell me your full postcode? [IF ASKED, PLEASE STATE THAT THIS WILL BE USED FOR ANALYSIS PURPOSES ONLY; IF RESPONDENT IS RELUCTANT, PLEASE ASK FOR THE FIRST HALF OF THE POSTCODE ONLY, BUT RECORD IN FULL WHEREVER POSSIBLE]**

---

1<sup>st</sup> half (e.g. EH2)

2<sup>nd</sup> half (e.g. 2EN)

---

Q38. We really appreciate the time that you have given us today. Would you be willing to be contacted again for clarification purposes or be invited to take part in other research for Southern Water?

- Yes, for both clarification and further research
- Yes, for clarification only
- Yes, for further research only
- No

**Thank you for your help in this research**

This research was conducted under the terms of the MRS code of conduct and is completely confidential. If you would like to confirm my credentials or those of Accent please call the MRS free on 0500 396999. **HAND OVER THE THANK YOU SLIP.**

Please can I take a note of your name and where we can contact you for quality control purposes?

Respondent name: .....

Telephone: home:..... work:.....

**Thank you**

I confirm that this interview was conducted under the terms of the MRS code of conduct and is completely confidential

Interviewer's signature: .....

**Time Interview completed:**

--	--

 : 

--	--