

12 September 2007

**The Benefits of Water Framework Directive
Programmes of Measures in England & Wales
APPENDICES A - K**

A Draft Final Report to DEFRA re CRP Project 4b/c/d

NERA
Economic Consulting


Accent

NERA-Accent Project Team

Bill Baker (NERA, Project Director)
Paul Metcalfe (NERA, Project Manager)
Sarah Butler (NERA)
Mathieu Pearson (NERA)
Yves Gueron (NERA)
Rob Sheldon (Accent)
Jo East (Accent)

NERA's Expert Advisors

Giles Atkinson (London School of Economics)
Richard Carson (University of California, San Diego)
Kenneth Train (NERA and University of California, Berkeley)

Project Steering Group

John Joyce (Independent Consultant)
Kevin Andrews (DEFRA)
Camilla Lundbak (DEFRA)
Rob Curry (Environment Agency)
Iain McGuffog (South West Water and UK Water Industry Research)

Client's Peer Reviewers

Ian Bateman (University of East Anglia)
George Hutchinson (Queen's University, Belfast)

NERA Economic Consulting
15 Stratford Place
London W1C 1BE
United Kingdom
Tel: +44 20 7659 8500
Fax: +44 20 7659 8501
www.nera.com

Contents

Appendix A. List of Interim Outputs	1
Appendix B. Recruitment Questionnaire	2
Appendix C. Main Survey Questionnaire and Summary Response Tables	5
Appendix D. Show Cards 1 - CE, Then CV Order	47
Appendix E. Show Cards 2 - CV, Then CE Order	73
Appendix F. Demographics Showcards	99
Appendix G. Potential Biases	107
Appendix H. Variable Definitions and Summary Statistics	113
Appendix I. Sample Characteristics	116
Appendix J. Inconsistencies	126
Appendix K. Validity Assessment	134

Appendix A. List of Interim Outputs

The following are a list of the significant interim outputs from Project 4b to date:

Document Name	Filename
Project Logic Memo	061218 CRP Project 4b Logic Memo.doc; Final DG Topic Guide_Numbered.doc; Final SH Topic Guide_Numbered.doc
Literature Review	070214 Literature survey_Final.pdf
Deliberative Research Report	070214 DG Report_Final.pdf; 070214 DG Report_App.pdf
Stakeholder Report	1607SHrep02.doc
SP Instrument v1	070213 SP Questionnaire draft_PM.doc; 070213 SP Instrument Cards_PM.doc
Summary of Recommendations	070214 Summary of Recommendations_Note for PSG.pdf
SP Instrument v2	070302 WFD Benefits SP Survey Questionnaire_PM; 070302 SP Show Cards_PM
Draft Recommendations Report	070328 SP Design Recommendations_MAIN_DRAFT_PM1.doc
SP Instrument v3	070412 WFD Benefits SP Survey Questionnaire_Pilot.doc; 070412 Showcards_Generic_Pilot.doc
Pilot Report	070509 Pilot report.doc
Sample Selection Memo	070509 Sample Selection Memo.doc
Cognitive Interviews Report	1648 CI report01.doc
Main SP Design Report	070530 NERA Accent for CRP Defra 4b Main Report DF.pdf
Second Pilot Report	070609 Second Pilot Report_DRAFT.doc
Implementation and Prelim Results	070810 CRP 4cd - Survey Imp + Prelim Findings_DRAFT.doc
Draft Survey Results Report	070828 CRP 4cd - WFD Benefits Survey Results_DRAFT.doc

Appendix B. Recruitment Questionnaire

Q4. What is the employment status of the chief wage earner in your household

1. Large employers and higher managerial occupations
2. Higher professional occupations
3. Lower managerial and professional occupations
4. Intermediate occupations
5. Small employers and own account workers
6. Lower supervisory and technical occupations
7. Semi-routine occupations
8. Routine occupations
9. Never worked and long-term unemployed
- 10..Not classified

Q5. Which of the following age groups do you fall into?

- | | | |
|---|-------|------------------------------------|
| 1 | 18-34 | |
| 2 | 35-54 | 4 Refused THANK & CLOSE |
| 3 | 55+ | |

Q6. Do you live within 15 miles of here

- | | |
|--------|--------------------------------|
| 1. yes | 2. no THANK & CLOSE |
|--------|--------------------------------|

Q7. <For Some Locations Only>

Do you live in one of the following postcode areas? (Show Postcode List for location)

Invitation

Thank you for answering those questions. Would you be willing to take part in a survey we are doing? As a thank you for your time you will be provided with £8 and the interview would last for about 40 minutes. The interview will be held in accordance with the Code of Conduct of the Market Research Society and any views you express during the discussion will be treated with complete confidence and will not be attributed to you personally. Would you be willing to take part?

- | | |
|-------|-----------------------------|
| 1 yes | 2 no THANK AND CLOSE |
|-------|-----------------------------|

IF YES, CONTINUE WITH INTERVIEW AND NOTE DETAILS OF RESPONDENT.

Confirmation

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

Interviewer's signature:.....

THANK RESPONDENT FOR THEIR HELP IN THIS RESEARCH

Appendix C. Main Survey Questionnaire and Summary Response Tables

SECTION A: INTRODUCTORY SECTION		Q1A Q1a Pensions	
		Frequency	%
1.	First, I'm going to read a list of national concerns. For each issue, please tell me whether you feel the amount of money we are spending as a nation is too much, just about the right amount, or too little. [HAND RESPONDENT SHOWCARD 1A] [RECORD RESPONSES AS Q1a TO Q1h USING THE FOLLOWING CODE:]		
	1 = Too much	39	2.6
	2 = About the right amount	280	18.8
	3. = Too little	1109	74.6
	8. = Don't know	58	3.9
	9 = Refused	1	0.1
	Total	1487	100
		Q1B Q1b Social Security	
		Frequency	%
	1 Too much	442	29.7
	2 About the right amount	562	37.8
	3 Too little	344	23.1
	4 Don't know	138	9.3
	5 Refused	1	0.1
	Total	1487	100
		Q1C Q1c. Education	
		Frequency	%
	1 Too much	57	3.8
	2 About the right amount	521	35
	3 Too little	854	57.4
	4 Don't know	53	3.6
	5 Refused	2	0.1
	Total	1487	100
		Q1D Q1d. Reducing water pollution	
		Frequency	%
	1 Too much	27	1.8
	2 About the right amount	484	32.5
	3 Too little	784	52.7
	4 Don't know	192	12.9
	Total	1487	100
		Q1E Q1e. Transport	
		Frequency	%
	1 Too much	148	10
	2 About the right amount	512	34.4
	3 Too little	788	53
	4 Don't know	39	2.6
	Total	1487	100
Question No.	Issue	Response Code	
1a	Pensions		
1b	Social Security		
1c	Education		
1d	Reducing water pollution		
1e	Transport		
1f	Police and criminal justice		
1g	Reducing air pollution		
1h	Healthcare		

			Q1F Q1f. Police and criminal justice		
			Frequency		%
			1 Too much	121	8.1
			2 About the right amount	593	39.9
			3 Too little	734	49.4
			4 Don't know	38	2.6
			5 Refused	1	0.1
			Total	1487	100
			Q1G Q1g. Reducing air pollution		
			Frequency		%
			1 Too much	53	3.6
			2 About the right amount	449	30.2
			3 Too little	858	57.7
			4 Don't know	127	8.5
			Total	1487	100
			Q1H Q1h. Healthcare		
			Frequency		%
			1 Too much	44	3
			2 About the right amount	419	28.2
			3 Too little	1006	67.7
			4 Don't know	17	1.1
			5 Refused	1	0.1
			Total	1487	100
2.	I now want you to consider this list of areas where water and sewerage services could be improved if we spent more. [HAND RESPONDENT SHOWCARD 1B] Which of these issues do you think should be the first and second highest priority for investment?		Q2A Q2a. Which of these issues do you think should be the first highest priority for investment?		
2a	First priority=_____		Frequency		%
2b	Second priority=_____		1 Reducing the risks of drinking water discolouration	299	20.1
	[RECORD RESPONSES TO Q2a AND Q2b USING THE FOLLOWING CODE:]		2 Reducing the risks of sewer flooding	452	30.4
			3 Fixing leaks in pipes	510	34.3
			4 Improving river water quality	84	5.6
			5 Reducing the risks of interruptions to supply	55	3.7
			6 Improving bathing water quality	12	0.8
			7 Protecting animal and plant life around waterways	74	5
			8 Don't know	1	0.1
			Total	1487	100
			Q2B Q2b. Which of these issues do you think should be the second highest priority for investment?		
			Frequency		%
			1 Reducing the risks of drinking water discolouration	184	12.4
			2 Reducing the risks of sewer flooding	432	29.1
			3 Fixing leaks in pipes	345	23.2
			4 Improving river water quality	155	10.4
			5 Reducing the risks of interruptions to supply	116	7.8
			6 Improving bathing water quality	35	2.4
			7 Protecting animal and plant life around waterways	216	14.5
			8 Don't know	4	0.3
			Total	1487	100
	Issues				
	priority	First priority	Second		
	Reducing the risks of drinking water discolouration	1	1		
	Reducing the risks of sewer flooding	2	2		
	Fixing leaks in pipes	3	3		
	Improving river water quality	4	4		
	Reducing the risks of interruptions to supply	5	5		
	Improving bathing water quality	6	6		
	Protecting animal and plant life around waterways	7	7		
	Don't know	9	9		

<p>3. Please look at this card [HAND RESPONDENT SHOWCARD 2]. It contains five statements about pollution control and the costs of pollution control. Please read these statements, and then tell me which you agree with most.</p> <p>RECORD A, B, C, D, E, F, OR G</p> <ol style="list-style-type: none"> Protecting the environment is so important that pollution control requirements and standards cannot be too strict, and continuing improvement must be made regardless of cost, or Protecting the environment is important and continuing improvements should be funded, provided that they are not excessively costly, or We are spending about the right amount on cleaning up the environment and don't need to increase or decrease this spending, or We have made enough progress on cleaning up the environment and we should now concentrate on holding down costs rather than requiring stricter pollution controls, or Pollution control requirements and standards have gone too far and they already cost more than they are worth. Don't know Refused 	<p>Q3 Q3. Which you agree with the most - Statements about pollution control and the costs of pollution co</p> <table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>1 Protecting the environment is so important that pollution control requirements and standards cannot be too strict</td> <td>683</td> <td>45.9</td> </tr> <tr> <td>2 Protecting the environment is important & continuing improvements should be funded, provided that they are not costly</td> <td>587</td> <td>39.5</td> </tr> <tr> <td>3 We are spending about the right amount on cleaning up the environment and don't need to increase/decrease this spending</td> <td>99</td> <td>6.7</td> </tr> <tr> <td>4 We have made enough progress on cleaning up the environment and we should now concentrate on holding down costs</td> <td>63</td> <td>4.2</td> </tr> <tr> <td>5 Pollution control requirements and standards have gone too far and they already cost more than they are worth</td> <td>46</td> <td>3.1</td> </tr> <tr> <td>6 Don't know</td> <td>8</td> <td>0.5</td> </tr> <tr> <td>7 Refused</td> <td>1</td> <td>0.1</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table>		Frequency	%	1 Protecting the environment is so important that pollution control requirements and standards cannot be too strict	683	45.9	2 Protecting the environment is important & continuing improvements should be funded, provided that they are not costly	587	39.5	3 We are spending about the right amount on cleaning up the environment and don't need to increase/decrease this spending	99	6.7	4 We have made enough progress on cleaning up the environment and we should now concentrate on holding down costs	63	4.2	5 Pollution control requirements and standards have gone too far and they already cost more than they are worth	46	3.1	6 Don't know	8	0.5	7 Refused	1	0.1	Total	1487	100			
	Frequency	%																													
1 Protecting the environment is so important that pollution control requirements and standards cannot be too strict	683	45.9																													
2 Protecting the environment is important & continuing improvements should be funded, provided that they are not costly	587	39.5																													
3 We are spending about the right amount on cleaning up the environment and don't need to increase/decrease this spending	99	6.7																													
4 We have made enough progress on cleaning up the environment and we should now concentrate on holding down costs	63	4.2																													
5 Pollution control requirements and standards have gone too far and they already cost more than they are worth	46	3.1																													
6 Don't know	8	0.5																													
7 Refused	1	0.1																													
Total	1487	100																													
<p>I'd now like to ask about how you use lakes, rivers, canals or coastal waters.</p> <p>4. Firstly, how many people including yourself and children live in your household? (IF MORE THAN 1 PERSON, ASK 4A. OTHERWISE SKIP TO Q5)</p> <p>4a. How many of these people are under 18? _____ [RECORD NUMBER]</p> <p>4b. What are their ages? _____ [RECORD AGE OF PERSONS 1 TO X AS 4b1 to 4bX]</p> <p>Please look at the following card. [HAND RESPONDENT SHOWCARD 3]</p> <p>This card lists a number of activities. I would like to know if you, or any members of your household, have done any of these things often – that is more than six times in the last twelve months, or sometimes – that is between three and six times in the last twelve months, or rarely – that is only once or twice in the last twelve months, or not at all.</p>	<p>Q4 Q4. How many people including yourself and children live in your household?</p> <table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>396</td> <td>26.6</td> </tr> <tr> <td>2</td> <td>578</td> <td>38.9</td> </tr> <tr> <td>3</td> <td>239</td> <td>16.1</td> </tr> <tr> <td>4</td> <td>174</td> <td>11.7</td> </tr> <tr> <td>5</td> <td>77</td> <td>5.2</td> </tr> <tr> <td>6</td> <td>14</td> <td>0.9</td> </tr> <tr> <td>7</td> <td>7</td> <td>0.5</td> </tr> <tr> <td>8</td> <td>2</td> <td>0.1</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table>		Frequency	%	1	396	26.6	2	578	38.9	3	239	16.1	4	174	11.7	5	77	5.2	6	14	0.9	7	7	0.5	8	2	0.1	Total	1487	100
	Frequency	%																													
1	396	26.6																													
2	578	38.9																													
3	239	16.1																													
4	174	11.7																													
5	77	5.2																													
6	14	0.9																													
7	7	0.5																													
8	2	0.1																													
Total	1487	100																													

Q4A Q4a. How many of these people are under 18?		
	Frequency	%
-1 Not applicable	396	26.6
0	695	46.7
1	203	13.7
2	133	8.9
3	44	3
4	10	0.7
5	5	0.3
6	1	0.1
Total	1487	100
Q4B1 Q4b1. What are their ages - Person 1		
	Frequency	%
-1 Not applicable	1091	73.4
0	5	0.3
1	35	2.4
2	25	1.7
3	18	1.2
4	14	0.9
5	13	0.9
6	11	0.7
7	19	1.3
8	15	1
9	17	1.1
10	17	1.1
11	13	0.9
12	27	1.8
13	22	1.5
14	32	2.2
15	37	2.5
16	29	2
17	47	3.2
Total	1487	100

Q4B2 Q4b2. What are their ages - Person 2		
	Frequency	%
-1 Not applicable	1294	87
0	2	0.1
1	19	1.3
2	6	0.4
3	8	0.5
4	12	0.8
5	8	0.5
6	12	0.8
7	6	0.4
8	11	0.7
9	12	0.8
10	18	1.2
11	9	0.6
12	15	1
13	12	0.8
14	17	1.1
15	12	0.8
16	9	0.6
17	5	0.3
Total	1487	100
Q4B3 Q4b3. What are their ages - Person 3		
	Frequency	%
-1 Not applicable	1427	96
0	1	0.1
1	2	0.1
2	3	0.2
3	6	0.4
4	5	0.3
5	4	0.3
6	3	0.2
7	7	0.5
8	6	0.4
9	2	0.1
10	4	0.3
11	6	0.4
12	3	0.2
13	1	0.1
14	2	0.1
15	1	0.1
16	2	0.1
17	2	0.1
Total	1487	100

Q4B4 Q4b4. What are their ages - Person 4		
	Frequency	%
-1 Not applicable	1471	98.9
0	1	0.1
1	5	0.3
2	1	0.1
3	2	0.1
5	1	0.1
9	1	0.1
10	4	0.3
13	1	0.1
Total	1487	100
Q4B5 Q4b5. What are their ages - Person 5		
	Frequency	%
-1 Not applicable	1481	99.6
1	1	0.1
3	1	0.1
6	1	0.1
8	2	0.1
11	1	0.1
Total	1487	100
Q4B6 Q4b6. What are their ages - Person 6		
	Frequency	%
-1 Not applicable	1486	99.9
5	1	0.1
Total	1487	100
Q4B7 Q4b7. What are their ages - Person 7		
	Frequency	%
-1 Not applicable	1487	100
Q4B8 Q4b8. What are their ages - Person 8		
	Frequency	%
-1 Not applicable	1487	100
Q4B9 Q4b9. What are their ages - Person 9		
	Frequency	%
-1 Not applicable	1487	100
Q4B10 Q4b10. What are their ages - Person 10		
	Frequency	%
-1 Not applicable	1487	100

<p>[MARK ANSWERS FOR EACH ACTIVITY (ROW) AS Q5a TO Q5c USING THE FOLLOWING CODE:]</p> <p>1 = Often 2 = Sometimes 3. = Rarely 4. = Never 8. = Don't know 9 = Refused</p>	<table border="1"> <thead> <tr> <th colspan="3">Q5A Q5a. Activities in the last 12 months - Water contact activities</th> </tr> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>1 Often</td> <td>149</td> <td>10</td> </tr> <tr> <td>2 Sometimes</td> <td>212</td> <td>14.3</td> </tr> <tr> <td>3 Rarely</td> <td>297</td> <td>20</td> </tr> <tr> <td>4 Never</td> <td>829</td> <td>55.7</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th colspan="3">Q5B Q5b. Activities in the last 12 months - Fishing</th> </tr> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>1 Often</td> <td>80</td> <td>5.4</td> </tr> <tr> <td>2 Sometimes</td> <td>63</td> <td>4.2</td> </tr> <tr> <td>3 Rarely</td> <td>102</td> <td>6.9</td> </tr> <tr> <td>4 Never</td> <td>1242</td> <td>83.5</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th colspan="3">Q5C Q5c. Activities in the last 12 months - Other activities on or around the water</th> </tr> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>1 Often</td> <td>599</td> <td>40.3</td> </tr> <tr> <td>2 Sometimes</td> <td>426</td> <td>28.6</td> </tr> <tr> <td>3 Rarely</td> <td>170</td> <td>11.4</td> </tr> <tr> <td>4 Never</td> <td>292</td> <td>19.6</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table>	Q5A Q5a. Activities in the last 12 months - Water contact activities				Frequency	%	1 Often	149	10	2 Sometimes	212	14.3	3 Rarely	297	20	4 Never	829	55.7	Total	1487	100	Q5B Q5b. Activities in the last 12 months - Fishing				Frequency	%	1 Often	80	5.4	2 Sometimes	63	4.2	3 Rarely	102	6.9	4 Never	1242	83.5	Total	1487	100	Q5C Q5c. Activities in the last 12 months - Other activities on or around the water				Frequency	%	1 Often	599	40.3	2 Sometimes	426	28.6	3 Rarely	170	11.4	4 Never	292	19.6	Total	1487	100
Q5A Q5a. Activities in the last 12 months - Water contact activities																																																																
	Frequency	%																																																														
1 Often	149	10																																																														
2 Sometimes	212	14.3																																																														
3 Rarely	297	20																																																														
4 Never	829	55.7																																																														
Total	1487	100																																																														
Q5B Q5b. Activities in the last 12 months - Fishing																																																																
	Frequency	%																																																														
1 Often	80	5.4																																																														
2 Sometimes	63	4.2																																																														
3 Rarely	102	6.9																																																														
4 Never	1242	83.5																																																														
Total	1487	100																																																														
Q5C Q5c. Activities in the last 12 months - Other activities on or around the water																																																																
	Frequency	%																																																														
1 Often	599	40.3																																																														
2 Sometimes	426	28.6																																																														
3 Rarely	170	11.4																																																														
4 Never	292	19.6																																																														
Total	1487	100																																																														
<p>SECTION B: WATER QUALITY LEVELS</p> <p>Please look at this card. [HAND RESPONDENT SHOWCARD 4] This card describes what the environment in and around a typical water site might be like. A site is either a whole lake or reservoir, or a stretch of river, canal, estuary or coastal water. In this card, and for the remainder of the survey, we will use the three-colour system on this card to describe the three possible quality levels at any water site.</p>																																																																
<p><u>Dark Blue</u> – quality is “High”. There will be a diverse and natural range of plants, insects, fish, birds and other animals. Water will generally have the right degree of clarity, no noticeable pollution, and generally be suitable for contact activities.</p> <p><u>Mid Blue</u> – quality is “Medium”. There will be plants, insects, fish, birds and other animals, but there will be some fish and other wildlife missing. Water will be slightly murky or discoloured in parts, and there will sometimes be visible pollution in some places, and some algal blooms. Water will be suitable for contact activities in some areas but not others.</p> <p><u>Light blue</u> – quality is “Low”. There may be limited or no plants or wildlife, or the water may be dominated by a single plant species. Water will generally be murky or discoloured, and may sometimes be bad-smelling in some places. There may also regularly be visible pollution in some places, and frequent algal blooms. Water will be unsuitable for contact activities.</p> <p>Please keep this card in front of you for the rest of this survey.</p>																																																																

<p>I am now going to show you an example water site. The illustrations are text-book drawings, which match the descriptions, but the colours, the number and type of species present, and their sizes depend on the location, time of day and season.</p> <p>There are a few important ideas in these illustrations.</p> <p>First, “high quality” means having the right amount of naturally occurring plants and animals.</p> <p>Second, some water sites are naturally more murky than others so clear water does not necessarily mean high quality.</p> <p>Lastly, so we can focus on the ecology, the illustrations will not show any rubbish like plastic bottles or plastics bags.</p>	
<p>HAND RESPONDENT NEXT SHOWCARD, WHICH WILL BE EITHER 4A, 4B, 4C, OR 4D. READ ONLY THE TEXT BELOW THAT CORRESPONDS TO THE SHOW CARD GIVEN.</p> <p>CARD 4A RURAL RIVER</p> <p>This card gives an example of rural rivers.</p> <p>A Rural River that has <u>Dark Blue</u> quality will have a varied fish population, possibly including trout and salmon as well as coarse fish. It will support diverse and native plants and animals. It will have the right degree of clarity most of the time with no noticeable pollution. There will be natural and seasonal variations in water levels and flow. It will generally be suitable for contact activities.</p> <p>A Rural River that has <u>Mid Blue</u> quality will have coarse fish such as bream and roach present, possibly trout but no salmon. It will support some plants and animals. Water will have slightly less than the right degree of clarity, becoming murkier after rain. In some cases river bed, banks, water levels and/or flow may be affected by human pressures. It will be suitable for contact activities in some areas but not others.</p> <p>A Rural River that has <u>Light Blue</u> quality will have very few plants, fish or other animals. It will have cloudy, discoloured and possibly bad-smelling water. River bed, banks, water levels and flow will be noticeably affected by human pressures. It will be unsuitable for contact activities</p> <p>Please note that in some places, there may be some pollution-tolerant fish in low quality rural rivers.</p> <p>CARD 4B URBAN RIVER</p> <p>This card gives an example of how Urban Rivers are classified.</p>	

An Urban River that has Dark Blue quality will have a varied coarse fish population, including roach and bream, and a number of different plants. It will have the right degree of clarity most of the time with no noticeable pollution. There will be a small impact of physical modifications, such as flood defences and engineered channelling, on wildlife and scenery. It will generally be suitable for contact activities.

An Urban River that has Mid Blue quality will have some plants and coarse fish, such as roach and bream, generally present but not a diverse range. There will be occasional fish kills following storms. It will have slightly less than the right degree of clarity that may become murkier during high and low water flows. There will be some impact of physical modifications on wildlife and scenery. It will be suitable for contact activities in some areas but not others.

An Urban River that has Light Blue quality will have few if any plants or fish present. Water is murky and often discoloured and bad-smelling. There will be occasional slimes and sewage litter present. There will be a high impact of physical modifications on wildlife and scenery. It will be unsuitable for contact activities.

Please note that in some places, there may be some pollution-tolerant fish in low quality urban rivers.

CARD 4C LAKE

This card gives an example of how Lakes are classified.

A Lake that has Dark Blue quality will have a diversity of underwater plants, floating lilies, and tall flowering plants. It will have a varied fish population, including trout and coarse fish. Insects such as dragonflies are present. The water will have the right degree of clarity and no noticeable pollution. There will be natural and seasonal variations in water levels. It will generally be suitable for contact activities.

A Lake that has Mid Blue quality will have some underwater and floating plants in shallow areas and around the lake. There will be some coarse fish and other animals present but limited. Insects are rare. Water will have slightly less than the right degree of clarity and occasionally discoloured water. It will be suitable for contact activities in some areas but not others.

A Lake that has Light Blue quality will have very few plants, except blanket weed, and very few fish or other animals, except worms and leeches. It will have cloudy, discoloured and possibly bad-smelling water. It will be unsuitable for contact activities.

Please note that in some places, there may be some pollution-tolerant fish in low quality lakes.

CARD 4D ESTUARY / COASTAL AREA

This card gives an example of how Estuaries and Coastal Areas are classified.

An Estuary or Coastal Area that has Dark Blue quality will be supportive of varied plants

<p>(including saltmarsh and seagrasses), fish, shellfish and breeding bird populations. There will be occasional algal blooms. There will be no noticeable pollution. It will generally be suitable for contact activities.</p> <p>An Estuary or Coastal Area that has <u>Mid Blue</u> quality will have less diverse plant, fish, shellfish and bird populations, though a few bird species may be present in large numbers. There will be some algal blooms. Some beaches and shorelines may be covered by green seaweed. There will be some visible pollution. It will be suitable for contact activities in some areas but not others.</p> <p>An Estuary or Coastal Area that has <u>Light Blue</u> quality will have few plant, fish, shellfish or bird species. There may be periodic mass fish and shellfish kills. Algal blooms may be common. There will be very cloudy and discoloured water with frequent visible pollution and it will possibly be bad-smelling. It will be unsuitable for contact activities.</p> <p>Please note that in some places, there may be some pollution-tolerant fish in low quality estuaries and coastal waters.</p>	
<p><u>Please remember that this survey covers the whole water environment, including all lakes and reservoirs, rivers and canals, estuaries and coastal waters. Different water site types and areas may have different characteristics even where they are both classified as having the same quality.</u></p>	
<p>Now I would like you to look at a map showing how the water environment has been assessed in the local area [HAND RESPONDENT MAP 1 –LOCAL WATER ENVIRONMENT QUALITY.]</p> <p>This map shows major rivers and lakes, as well as coastal waters (as appropriate), but does not show all of the smaller rivers and canals. Instead, the map has been divided into <u>catchment zones</u> and each has been coloured for ecological quality. All land drains its water, including rainfall, to rivers eventually. The land areas which contribute to a particular stretch of river represent a catchment zone.</p> <p>The quality of one catchment zone may influence one or more of its neighbouring catchments, but it also may have a very different quality level depending on the direction of water flow and on the ability of the particular river environment to absorb pollutants.</p> <p>The pie chart at the top shows the overall proportions of the area on the map that are High, Medium and Low Quality.</p>	

<p>6. Looking at this map, what do you think about the ecological quality of the water environment in this area? Please look at this card [HAND RESPONDENT SHOWCARD 2]. Is it A, B, C, D, or E? [RECORD A,B,C,D,E,F,or G]</p> <ol style="list-style-type: none"> A great deal better than you expected Somewhat better than you expected About what you expected Somewhat worse than you expected A great deal worse than you expected Don't Know Refused 	<p>Q6 Q6. What do you think about the ecological quality of the water environment in this local area?</p> <table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>1 A great deal better than you expected</td> <td>54</td> <td>3.6</td> </tr> <tr> <td>2 Somewhat better than you expected</td> <td>156</td> <td>10.5</td> </tr> <tr> <td>3 About what you expected</td> <td>439</td> <td>29.5</td> </tr> <tr> <td>4 Somewhat worse than you expected</td> <td>458</td> <td>30.8</td> </tr> <tr> <td>5 A great deal worse than you expected</td> <td>368</td> <td>24.7</td> </tr> <tr> <td>6 Don't Know</td> <td>12</td> <td>0.8</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table>		Frequency	%	1 A great deal better than you expected	54	3.6	2 Somewhat better than you expected	156	10.5	3 About what you expected	439	29.5	4 Somewhat worse than you expected	458	30.8	5 A great deal worse than you expected	368	24.7	6 Don't Know	12	0.8	Total	1487	100			
	Frequency	%																										
1 A great deal better than you expected	54	3.6																										
2 Somewhat better than you expected	156	10.5																										
3 About what you expected	439	29.5																										
4 Somewhat worse than you expected	458	30.8																										
5 A great deal worse than you expected	368	24.7																										
6 Don't Know	12	0.8																										
Total	1487	100																										
<p>7. Why is it [CIRCLE CORRECT RESPONSE FROM Q6 HERE]? [RECORD VERBATIM]</p>	<p>IN APPENDIX L</p>																											
<p>Now I would like you to look at a map of England and Wales. [HAND RESPONDENT MAP 2 – “NATIONAL WATER ENVIRONMENT QUALITY”] This map shows the ecological quality of all water sites in England and Wales.</p>																												
<p>8. Looking at this map, what do you think about the overall quality of the water environment in England and Wales? Please look at this card [HAND RESPONDENT SHOWCARD 2]. Is it A, B, C, D, or E? [RECORD A,B,C,D,E,F,or G]</p> <ol style="list-style-type: none"> A great deal better than you expected Somewhat better than you expected About what you expected Somewhat worse than you expected A great deal worse than you expected Don't Know Refused 	<p>Q8 Q8. What do you think about the overall quality of the water environment in England and Wales?</p> <table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>1 A great deal better than you expected</td> <td>17</td> <td>1.1</td> </tr> <tr> <td>2 Somewhat better than you expected</td> <td>99</td> <td>6.7</td> </tr> <tr> <td>3 About what you expected</td> <td>520</td> <td>35</td> </tr> <tr> <td>4 Somewhat worse than you expected</td> <td>521</td> <td>35</td> </tr> <tr> <td>5 A great deal worse than you expected</td> <td>311</td> <td>20.9</td> </tr> <tr> <td>6 Don't Know</td> <td>17</td> <td>1.1</td> </tr> <tr> <td>7 Refused</td> <td>2</td> <td>0.1</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table>		Frequency	%	1 A great deal better than you expected	17	1.1	2 Somewhat better than you expected	99	6.7	3 About what you expected	520	35	4 Somewhat worse than you expected	521	35	5 A great deal worse than you expected	311	20.9	6 Don't Know	17	1.1	7 Refused	2	0.1	Total	1487	100
	Frequency	%																										
1 A great deal better than you expected	17	1.1																										
2 Somewhat better than you expected	99	6.7																										
3 About what you expected	520	35																										
4 Somewhat worse than you expected	521	35																										
5 A great deal worse than you expected	311	20.9																										
6 Don't Know	17	1.1																										
7 Refused	2	0.1																										
Total	1487	100																										
<p>SECTION C: IMPROVEMENTS AND BENEFITS</p>																												
<p>Over the past 10 years, significant improvements have been made to water sites. Now a new law is in place, which has as its first goal to make sure that the water environment does not get any worse from now on at any site. It then aims to make substantial improvements within the next 8 to 20 years by reducing the amount of Low Quality and increasing the amount of High Quality sites in the water environment. Please look at this next card. [HAND RESPONDENT SHOWCARD 6].</p>																												

<p>Improvements from Low Quality to Medium Quality will make conditions better for plants, fish and animals in and around the water , decrease visible pollution, and allow for boating, angling and other activities around the water.</p> <p>Improvements from Medium Quality to High Quality will end visible signs of pollution, improve conditions for all water-based activities, and provide good conditions for a diversity of plants, animals, fish and birds.</p> <p>Please note that the new law will <u>not</u> affect your drinking water quality, it will <u>not</u> directly create more access for recreational water users; and it will <u>not</u> be responsible for cleaning up general rubbish like plastic bags and bottles.</p>																												
<p>9. [HAND RESPONDENT SHOW CARD 7.] Please look at this card and choose which of these possible improvements is most important to you, [RECORD 1ST RANKED BENEFIT, a-g</p> <ol style="list-style-type: none"> a. Improved conditions for fishing b. Improved conditions for water contact activities. For example, <u>canoeing</u>, rowing, rafting, surfing, windsurfing, diving, wading, paddling, or swimming in the sea or in lakes or rivers (not in swimming pools) c. Improved conditions for other activities on, or around the water. For example, narrowboating, other boating, walking, running, cycling, or sitting nearby d. Knowledge of improved habitats for plants, fish and other animals e. Other [SPECIFY] f. All of equal importance [DO NOT READ] g. None/Don't Know [DO NOT READ] 	<p>Q9 Q9. Which of these possible improvements is most important to you?</p> <table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>1 Improved conditions for fishing</td> <td>43</td> <td>2.9</td> </tr> <tr> <td>2 Improved conditions for water contact activities</td> <td>336</td> <td>22.6</td> </tr> <tr> <td>3 Improved conditions for other activities on, or around the water</td> <td>307</td> <td>20.6</td> </tr> <tr> <td>4 Knowledge of improved habitats for plants, fish and other animals</td> <td>734</td> <td>49.4</td> </tr> <tr> <td>5 Other</td> <td>28</td> <td>1.9</td> </tr> <tr> <td>6 All of equal importance</td> <td>29</td> <td>2</td> </tr> <tr> <td>7 None/Don't Know</td> <td>10</td> <td>0.7</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table>		Frequency	%	1 Improved conditions for fishing	43	2.9	2 Improved conditions for water contact activities	336	22.6	3 Improved conditions for other activities on, or around the water	307	20.6	4 Knowledge of improved habitats for plants, fish and other animals	734	49.4	5 Other	28	1.9	6 All of equal importance	29	2	7 None/Don't Know	10	0.7	Total	1487	100
	Frequency	%																										
1 Improved conditions for fishing	43	2.9																										
2 Improved conditions for water contact activities	336	22.6																										
3 Improved conditions for other activities on, or around the water	307	20.6																										
4 Knowledge of improved habitats for plants, fish and other animals	734	49.4																										
5 Other	28	1.9																										
6 All of equal importance	29	2																										
7 None/Don't Know	10	0.7																										
Total	1487	100																										

	Q9_OTHR5 Other	
	Frequency	%
-1 not applicable	1459	98.1
a combination of 3 and 4	1	0.1
a general improvement in habitat and conditions for activities .	1	0.1
better for everyone not just sports activities	1	0.1
better quality drinking water	1	0.1
cleaning the water up and removing sewerage to make better for fish and plant life	1	0.1
drinking mquality water	1	0.1
drinking water	2	0.1
drinking water because although i do buy bottled drinking water why should you when there is tap water	1	0.1
empovement of habitate and enviroment	1	0.1
ensuring healthy supply of clean water for individualls	1	0.1
environment and the living animals and plants	1	0.1
i	1	0.1
i just want habit to live better	1	0.1
improve drinking water	1	0.1
improve ecological diversity, and to main tain existing diversity within the existig micro climate. we should have some in creased control over no i dgenous species,	1	0.1
improve it for the general public and better drinking water	1	0.1
improve quality of life natural enviroment	1	0.1
improved habitats for plants,fish and other animals	1	0.1
improving quality of water for wildlife	1	0.1
keep the riverclean any thing like shopping trolleys getthem out	1	0.1
make natural waters safe for human contact and animals and plants	1	0.1
now with heavy rain improvements are to be made in purity i n resevoirs	1	0.1
quality of the water and not the uses to which it is put	1	0.1
something has to be done about the plastic bags and bottles my concern is for the plants fish animals etc but if you clean up the rubbish it will help other species	1	0.1
stop flooding	1	0.1
to ensure there is less flooding, and waste	1	0.1
we should aim to improve the water environment per se and not just for specific activities.	1	0.1
Total	1487	100

<p>10. [RESPONDENT HAS SHOWCARD ID: _____. THEREFORE THEY WILL DO:</p> <p>[IF SHOWCARD ID IS IN THE RANGE M-0001 TO M-0900: CV, THEN CE; SKIP TO SECTION D2]</p> <p>[IF SHOWCARD ID IS IN THE RANGE M-0901 TO M-1800: CV, THEN CE; SKIP TO SECTION D1]</p>	
<p>SECTION D1: WATER QUALITY VALUATION (CE-CV)</p> <p>Water quality is affected by pollution from households, farms and businesses, and climate change. Some works are needed just to prevent water sites from getting worse. The government's policy is that the polluter will have to pay for these works. This will make some every day products more expensive and will increase household water and sewerage bills too.</p> <p>The government has estimated that these extra costs to each household, including yours, will be £X per year, in terms of higher water and sewerage bills and higher prices on everyday products.</p> <p>Improving the environment requires more cutting of pollution, which will make products more expensive and will further increase household water and sewerage bills.</p> <p>I am now going to show you cards, which have two or three options for water environment improvements. For all the options, steps will be taken so there will be no worsening of the water environment at any site, the most cost-effective works will be used, the money will be ring-fenced to make the improvements, and information will be made available to the public on progress towards the improvements.</p> <p>On each card, I would like you to tell me which option you most prefer. The choices you make will be used to help decide how far to go with making improvements so will influence everyone's payment for improvements.</p>	
<p><u>CHOICE EXAMPLE</u></p> <p>Please look at this card. [HAND RESPONDENT EXAMPLE CHOICE CARD]. In the top half of the table are some pie-charts. For each option (Option A – No Change and Option B) the first row of pie charts shows how much of your Local Area - the area on the first map - will be classified Light Blue, Mid Blue and Dark Blue in 8 years time, in 2015. The second row of pie charts, shows the same information but for the whole of England and Wales.</p>	

The left-hand Option A is the No Change option. There is no deterioration but also no improvements, so the High, Medium and Low Quality areas stay the same as shown in the maps earlier. For example, currently 45 percent of England and Wales is classified as Low Quality, 43 percent is Medium Quality and 12 percent is High Quality. These will stay the same if you choose this option and will result in the addition to household costs and water bills of £ X per year due to the steps to stop any worsening.

In Option B, some improvements are made and so the amount of Light Blue comes down, and the amount of Dark Blue goes up over the 8 years until 2015.

The third row shows the percentage of the water environment in England and Wales, and your local area, that will be Dark Blue quality in 20 years time. By this time, all Light Blue areas will have been tackled so that the remainder will all be Mid Blue. Those areas remaining Mid Blue will be evenly spread around the country. In Option A, there will be no improvements, and so the amount of Dark Blue will remain as it is now; in Option B, 75 percent of the water environment will be Dark Blue, with the remainder being Mid Blue.

The fourth row shows how much your household would pay every year for the improvements in the Option above. For Option A – No Change, there would be no additional charges due to improvements. For Option B, the increase in your household bills would be £Y every year. These payments are in addition to the payment to ensure no water site gets worse, and would continue indefinitely.

Please review the options and think about how you would select between Option A and B taking into account the amount of the water environment improved, the amount of time it would take, and the increase in your household bills. You should choose Option A unless you think Option B is better.

It is important for us to get realistic choices from you regarding the values of these programmes, so before you make some real choices, please consider your household budget and all of the things that you and your household need or would prefer to spend your money on before you decide. **Please also bear in mind that your water bill and other household expenses may change in future for other reasons not related to the water environment, and your income may also change in future. Your choices will influence how far to go with improvements, so will influence everyone's payment for improvements.**

CE EXERCISE		Q11 Q11. Preferred payment option, A, B, or C?																																																																			
<p>11. I will now show you a card which is exactly the same as the two option examples except the payment amounts are filled in and you have a choice of three Options A, B, or C. Please select your preferred option, A, B, or C. [RECORD OPTION CHOSEN FOR EXAMPLE CHOICE CARD]</p> <p>11a Why did you select this Option? [RECORD VERBATIM] [IF RESPONDENT CHOOSES "Option A - No Change" AND PROVIDES AN EXPLANATION LIKE: "THE ENVIRONMENT HAS IMPROVED FOR ZERO COST", INTERVIEWER SHOULD READ: "There will be no improvements if Option A is chosen, would you like to re-consider your choice?" [RECORD REVISED RESPONSE AS Q11 AND REPEAT Q11a]</p>	<table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>-1 Not applicable</td> <td>744</td> <td>50</td> </tr> <tr> <td>1 Option A</td> <td>104</td> <td>7</td> </tr> <tr> <td>2 Option B</td> <td>396</td> <td>26.6</td> </tr> <tr> <td>3 Option C</td> <td>243</td> <td>16.3</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table>				Frequency	%	-1 Not applicable	744	50	1 Option A	104	7	2 Option B	396	26.6	3 Option C	243	16.3	Total	1487	100																																																
	Frequency	%																																																																			
-1 Not applicable	744	50																																																																			
1 Option A	104	7																																																																			
2 Option B	396	26.6																																																																			
3 Option C	243	16.3																																																																			
Total	1487	100																																																																			
<p>I'd now like you to repeat what you have just done for each of the following cards. [HAND RESPONDENT REMAINING CHOICE CARDS] Most will have three options to choose between, but one card will only have two options. Option A - No Change will be the same for every card.</p>		<p>11A. TO FOLLOW</p>																																																																			
<p>12. [RECORD OPTION CHOSEN FOR CHOICE CARD 1] 13. [RECORD OPTION CHOSEN FOR CHOICE CARD 2] 14. [RECORD OPTION CHOSEN FOR CHOICE CARD 3] 15. [RECORD OPTION CHOSEN FOR CHOICE CARD 4] 16. [RECORD OPTION CHOSEN FOR CHOICE CARD 5] 17. [RECORD OPTION CHOSEN FOR CHOICE CARD 6] 18. [RECORD OPTION CHOSEN FOR CHOICE CARD 7] 19. [RECORD OPTION CHOSEN FOR CHOICE CARD 8]</p>	<table border="1"> <thead> <tr> <th colspan="4">Q12 Q12. Preferred payment option, A, B, or C - Choice card 1?</th> </tr> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>-1 Not applicable</td> <td>744</td> <td>50</td> </tr> <tr> <td>1 Option A</td> <td>132</td> <td>8.9</td> </tr> <tr> <td>2 Option B</td> <td>439</td> <td>29.5</td> </tr> <tr> <td>3 Option C</td> <td>172</td> <td>11.6</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th colspan="4">Q13 Q13. Preferred payment option, A, B, or C - Choice card 2?</th> </tr> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>-1 Not applicable</td> <td>744</td> <td>50</td> </tr> <tr> <td>1 Option A</td> <td>99</td> <td>6.7</td> </tr> <tr> <td>2 Option B</td> <td>328</td> <td>22.1</td> </tr> <tr> <td>3 Option C</td> <td>316</td> <td>21.3</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th colspan="4">Q14 Q14. Preferred payment option, A, B, or C - Choice card 3?</th> </tr> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>-1 Not applicable</td> <td>744</td> <td>50</td> </tr> <tr> <td>1 Option A</td> <td>109</td> <td>7.3</td> </tr> <tr> <td>2 Option B</td> <td>368</td> <td>24.7</td> </tr> <tr> <td>3 Option C</td> <td>266</td> <td>17.9</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table>			Q12 Q12. Preferred payment option, A, B, or C - Choice card 1?					Frequency	%	-1 Not applicable	744	50	1 Option A	132	8.9	2 Option B	439	29.5	3 Option C	172	11.6	Total	1487	100	Q13 Q13. Preferred payment option, A, B, or C - Choice card 2?					Frequency	%	-1 Not applicable	744	50	1 Option A	99	6.7	2 Option B	328	22.1	3 Option C	316	21.3	Total	1487	100	Q14 Q14. Preferred payment option, A, B, or C - Choice card 3?					Frequency	%	-1 Not applicable	744	50	1 Option A	109	7.3	2 Option B	368	24.7	3 Option C	266	17.9	Total	1487	100
Q12 Q12. Preferred payment option, A, B, or C - Choice card 1?																																																																					
	Frequency	%																																																																			
-1 Not applicable	744	50																																																																			
1 Option A	132	8.9																																																																			
2 Option B	439	29.5																																																																			
3 Option C	172	11.6																																																																			
Total	1487	100																																																																			
Q13 Q13. Preferred payment option, A, B, or C - Choice card 2?																																																																					
	Frequency	%																																																																			
-1 Not applicable	744	50																																																																			
1 Option A	99	6.7																																																																			
2 Option B	328	22.1																																																																			
3 Option C	316	21.3																																																																			
Total	1487	100																																																																			
Q14 Q14. Preferred payment option, A, B, or C - Choice card 3?																																																																					
	Frequency	%																																																																			
-1 Not applicable	744	50																																																																			
1 Option A	109	7.3																																																																			
2 Option B	368	24.7																																																																			
3 Option C	266	17.9																																																																			
Total	1487	100																																																																			

	<p>Q15 Q15. Preferred payment option, A, B, or C - Choice card 4?</p> <table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>-1 Not applicable</td> <td>744</td> <td>50</td> </tr> <tr> <td>1 Option A</td> <td>144</td> <td>9.7</td> </tr> <tr> <td>2 Option B</td> <td>414</td> <td>27.8</td> </tr> <tr> <td>3 Option C</td> <td>185</td> <td>12.4</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table> <p>Q16 Q16. Preferred payment option, A, B, or C - Choice card 5?</p> <table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>-1 Not applicable</td> <td>744</td> <td>50</td> </tr> <tr> <td>1 Option A</td> <td>115</td> <td>7.7</td> </tr> <tr> <td>2 Option B</td> <td>349</td> <td>23.5</td> </tr> <tr> <td>3 Option C</td> <td>279</td> <td>18.8</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table> <p>Q17 Q17. Preferred payment option, A, B, or C - Choice card 6?</p> <table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>-1 Not applicable</td> <td>744</td> <td>50</td> </tr> <tr> <td>1 Option A</td> <td>112</td> <td>7.5</td> </tr> <tr> <td>2 Option B</td> <td>345</td> <td>23.2</td> </tr> <tr> <td>3 Option C</td> <td>286</td> <td>19.2</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table> <p>Q18 Q18. Preferred payment option, A, B, or C - Choice card 7?</p> <table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>-1 Not applicable</td> <td>744</td> <td>50</td> </tr> <tr> <td>1 Option A</td> <td>119</td> <td>8</td> </tr> <tr> <td>2 Option B</td> <td>360</td> <td>24.2</td> </tr> <tr> <td>3 Option C</td> <td>264</td> <td>17.8</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table> <p>Q19 Q19. Preferred payment option, A, B, or C - Choice card 8?</p> <table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>-1 Not applicable</td> <td>744</td> <td>50</td> </tr> <tr> <td>1 Option A</td> <td>142</td> <td>9.5</td> </tr> <tr> <td>2 Option B</td> <td>407</td> <td>27.4</td> </tr> <tr> <td>3 Option C</td> <td>194</td> <td>13</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table>		Frequency	%	-1 Not applicable	744	50	1 Option A	144	9.7	2 Option B	414	27.8	3 Option C	185	12.4	Total	1487	100		Frequency	%	-1 Not applicable	744	50	1 Option A	115	7.7	2 Option B	349	23.5	3 Option C	279	18.8	Total	1487	100		Frequency	%	-1 Not applicable	744	50	1 Option A	112	7.5	2 Option B	345	23.2	3 Option C	286	19.2	Total	1487	100		Frequency	%	-1 Not applicable	744	50	1 Option A	119	8	2 Option B	360	24.2	3 Option C	264	17.8	Total	1487	100		Frequency	%	-1 Not applicable	744	50	1 Option A	142	9.5	2 Option B	407	27.4	3 Option C	194	13	Total	1487	100
	Frequency	%																																																																																									
-1 Not applicable	744	50																																																																																									
1 Option A	144	9.7																																																																																									
2 Option B	414	27.8																																																																																									
3 Option C	185	12.4																																																																																									
Total	1487	100																																																																																									
	Frequency	%																																																																																									
-1 Not applicable	744	50																																																																																									
1 Option A	115	7.7																																																																																									
2 Option B	349	23.5																																																																																									
3 Option C	279	18.8																																																																																									
Total	1487	100																																																																																									
	Frequency	%																																																																																									
-1 Not applicable	744	50																																																																																									
1 Option A	112	7.5																																																																																									
2 Option B	345	23.2																																																																																									
3 Option C	286	19.2																																																																																									
Total	1487	100																																																																																									
	Frequency	%																																																																																									
-1 Not applicable	744	50																																																																																									
1 Option A	119	8																																																																																									
2 Option B	360	24.2																																																																																									
3 Option C	264	17.8																																																																																									
Total	1487	100																																																																																									
	Frequency	%																																																																																									
-1 Not applicable	744	50																																																																																									
1 Option A	142	9.5																																																																																									
2 Option B	407	27.4																																																																																									
3 Option C	194	13																																																																																									
Total	1487	100																																																																																									
<p>20. In making your choices between options on the cards, what factors did you consider, and which were the most important? [RECORD VERBATIM]</p>	<p>IN APPENDIX L</p>																																																																																										

CV EXERCISE

I would now like to ask you to consider a new card, which is slightly different. [HAND RESPONDENT SHOWCARD “WILLINGNESS TO PAY CARD”]

This card shows a single improvement option for the local and national water environments but does not show the amount the additional improvements would cost you. Please consider Option B on this card carefully and think about how much, if anything, you (your household), are willing to pay in addition to have the improvements in Option B as well as the ‘no worsening’.

<p>21. Please look at this card [HAND RESPONDENT "PAYMENT CARD"] What amount on this card, or any amount in between, is the most (you / your household) would be willing to pay, through increased water bills and other household payments every year, on top of the payment to stop the water environment getting worse, to have the improvements shown in Option B? a. ENTER AMOUNT b. DON'T KNOW c. REFUSED</p>	<p>Q21 Q21. What amount is the most (you/your household) would be willing to pay....to have the improvements shown in Option B?</p> <table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr><td>-1.00 Not applicable</td><td>744</td><td>50</td></tr> <tr><td>0</td><td>57</td><td>3.8</td></tr> <tr><td>1</td><td>1</td><td>0.1</td></tr> <tr><td>5</td><td>31</td><td>2.1</td></tr> <tr><td>6</td><td>1</td><td>0.1</td></tr> <tr><td>8</td><td>1</td><td>0.1</td></tr> <tr><td>10</td><td>59</td><td>4</td></tr> <tr><td>12</td><td>3</td><td>0.2</td></tr> <tr><td>15</td><td>9</td><td>0.6</td></tr> <tr><td>20</td><td>96</td><td>6.5</td></tr> <tr><td>25</td><td>26</td><td>1.7</td></tr> <tr><td>26</td><td>1</td><td>0.1</td></tr> <tr><td>30</td><td>63</td><td>4.2</td></tr> <tr><td>35</td><td>8</td><td>0.5</td></tr> <tr><td>40</td><td>22</td><td>1.5</td></tr> <tr><td>45</td><td>2</td><td>0.1</td></tr> <tr><td>50</td><td>128</td><td>8.6</td></tr> <tr><td>60</td><td>27</td><td>1.8</td></tr> <tr><td>70</td><td>5</td><td>0.3</td></tr> <tr><td>75</td><td>3</td><td>0.2</td></tr> <tr><td>80</td><td>13</td><td>0.9</td></tr> <tr><td>90</td><td>1</td><td>0.1</td></tr> <tr><td>100</td><td>103</td><td>6.9</td></tr> <tr><td>120</td><td>9</td><td>0.6</td></tr> <tr><td>140</td><td>2</td><td>0.1</td></tr> <tr><td>150</td><td>8</td><td>0.5</td></tr> <tr><td>160</td><td>4</td><td>0.3</td></tr> <tr><td>180</td><td>3</td><td>0.2</td></tr> <tr><td>200</td><td>34</td><td>2.3</td></tr> <tr><td>250</td><td>3</td><td>0.2</td></tr> <tr><td>300</td><td>5</td><td>0.3</td></tr> <tr><td>350</td><td>2</td><td>0.1</td></tr> <tr><td>450</td><td>1</td><td>0.1</td></tr> <tr><td>500</td><td>4</td><td>0.3</td></tr> <tr><td>888.88 Refused</td><td>3</td><td>0.2</td></tr> <tr><td>999.99 Don't know</td><td>5</td><td>0.3</td></tr> <tr><td>Total</td><td>1487</td><td>100</td></tr> </tbody> </table>		Frequency	%	-1.00 Not applicable	744	50	0	57	3.8	1	1	0.1	5	31	2.1	6	1	0.1	8	1	0.1	10	59	4	12	3	0.2	15	9	0.6	20	96	6.5	25	26	1.7	26	1	0.1	30	63	4.2	35	8	0.5	40	22	1.5	45	2	0.1	50	128	8.6	60	27	1.8	70	5	0.3	75	3	0.2	80	13	0.9	90	1	0.1	100	103	6.9	120	9	0.6	140	2	0.1	150	8	0.5	160	4	0.3	180	3	0.2	200	34	2.3	250	3	0.2	300	5	0.3	350	2	0.1	450	1	0.1	500	4	0.3	888.88 Refused	3	0.2	999.99 Don't know	5	0.3	Total	1487	100
	Frequency	%																																																																																																																	
-1.00 Not applicable	744	50																																																																																																																	
0	57	3.8																																																																																																																	
1	1	0.1																																																																																																																	
5	31	2.1																																																																																																																	
6	1	0.1																																																																																																																	
8	1	0.1																																																																																																																	
10	59	4																																																																																																																	
12	3	0.2																																																																																																																	
15	9	0.6																																																																																																																	
20	96	6.5																																																																																																																	
25	26	1.7																																																																																																																	
26	1	0.1																																																																																																																	
30	63	4.2																																																																																																																	
35	8	0.5																																																																																																																	
40	22	1.5																																																																																																																	
45	2	0.1																																																																																																																	
50	128	8.6																																																																																																																	
60	27	1.8																																																																																																																	
70	5	0.3																																																																																																																	
75	3	0.2																																																																																																																	
80	13	0.9																																																																																																																	
90	1	0.1																																																																																																																	
100	103	6.9																																																																																																																	
120	9	0.6																																																																																																																	
140	2	0.1																																																																																																																	
150	8	0.5																																																																																																																	
160	4	0.3																																																																																																																	
180	3	0.2																																																																																																																	
200	34	2.3																																																																																																																	
250	3	0.2																																																																																																																	
300	5	0.3																																																																																																																	
350	2	0.1																																																																																																																	
450	1	0.1																																																																																																																	
500	4	0.3																																																																																																																	
888.88 Refused	3	0.2																																																																																																																	
999.99 Don't know	5	0.3																																																																																																																	
Total	1487	100																																																																																																																	
<p>22. How did you decide the amount you/your household would be willing to pay? [RECORD VERBATIM]</p>	<p>IN APPENDIX L</p>																																																																																																																		

<p>23. Would you say you are very sure, quite sure, not too sure or very unsure about the amount you stated as your willingness to pay?</p> <ol style="list-style-type: none"> 1. Very sure 2. Quite sure 3. Not too sure 4. Very unsure 8. DON'T KNOW 9. REFUSED 	<p>Q23 Q23. Willingness to pay</p> <table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>-1 Not applicable</td> <td>744</td> <td>50</td> </tr> <tr> <td>1 Very sure</td> <td>425</td> <td>28.6</td> </tr> <tr> <td>2 Quite sure</td> <td>253</td> <td>17</td> </tr> <tr> <td>3 Not too sure</td> <td>56</td> <td>3.8</td> </tr> <tr> <td>4 Very unsure</td> <td>7</td> <td>0.5</td> </tr> <tr> <td>5 Don't know</td> <td>2</td> <td>0.1</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table>		Frequency	%	-1 Not applicable	744	50	1 Very sure	425	28.6	2 Quite sure	253	17	3 Not too sure	56	3.8	4 Very unsure	7	0.5	5 Don't know	2	0.1	Total	1487	100																																				
	Frequency	%																																																											
-1 Not applicable	744	50																																																											
1 Very sure	425	28.6																																																											
2 Quite sure	253	17																																																											
3 Not too sure	56	3.8																																																											
4 Very unsure	7	0.5																																																											
5 Don't know	2	0.1																																																											
Total	1487	100																																																											
<p>24. In thinking about your choices and the amount you stated as your (household's) willingness to pay, did you consider any of the following:</p> <p>24a the current costs of your water bill and other household expenses?</p> <p>24b possible future increases in your water bill and other household expenses?</p> <p>24c possible future changes in your income?</p> <p>24d where you would find the money from for the extra payment?</p> <p>[Code: 1. Yes; 2. No]</p>	<p>Q24A Q24a. Consideration in thinking about choices - The current costs of your water bill and other household expenses?</p> <table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>-1 Not applicable</td> <td>744</td> <td>50</td> </tr> <tr> <td>1 Yes</td> <td>662</td> <td>44.5</td> </tr> <tr> <td>2 No</td> <td>81</td> <td>5.4</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table> <p>Q24B Q24b. Consideration in thinking about choices - Possible future increases in your water bill and other household expenses?</p> <table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>-1 Not applicable</td> <td>744</td> <td>50</td> </tr> <tr> <td>1 Yes</td> <td>600</td> <td>40.3</td> </tr> <tr> <td>2 No</td> <td>143</td> <td>9.6</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table> <p>Q24C Q24c. Consideration in thinking about choices - Possible future changes in your income?</p> <table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>-1 Not applicable</td> <td>744</td> <td>50</td> </tr> <tr> <td>1 Yes</td> <td>513</td> <td>34.5</td> </tr> <tr> <td>2 No</td> <td>230</td> <td>15.5</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table> <p>Q24D Q24d. Consideration in thinking about choices - Where you would find the money from for the extra payment?</p> <table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>-1 Not applicable</td> <td>744</td> <td>50</td> </tr> <tr> <td>1 Yes</td> <td>570</td> <td>38.3</td> </tr> <tr> <td>2 No</td> <td>173</td> <td>11.6</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table>		Frequency	%	-1 Not applicable	744	50	1 Yes	662	44.5	2 No	81	5.4	Total	1487	100		Frequency	%	-1 Not applicable	744	50	1 Yes	600	40.3	2 No	143	9.6	Total	1487	100		Frequency	%	-1 Not applicable	744	50	1 Yes	513	34.5	2 No	230	15.5	Total	1487	100		Frequency	%	-1 Not applicable	744	50	1 Yes	570	38.3	2 No	173	11.6	Total	1487	100
	Frequency	%																																																											
-1 Not applicable	744	50																																																											
1 Yes	662	44.5																																																											
2 No	81	5.4																																																											
Total	1487	100																																																											
	Frequency	%																																																											
-1 Not applicable	744	50																																																											
1 Yes	600	40.3																																																											
2 No	143	9.6																																																											
Total	1487	100																																																											
	Frequency	%																																																											
-1 Not applicable	744	50																																																											
1 Yes	513	34.5																																																											
2 No	230	15.5																																																											
Total	1487	100																																																											
	Frequency	%																																																											
-1 Not applicable	744	50																																																											
1 Yes	570	38.3																																																											
2 No	173	11.6																																																											
Total	1487	100																																																											

<p>25. In light of your answers to the last set of questions, would you like to revise the amount you gave as the most (you / your household) would be willing to pay to stop the water environment getting worse and to have the improvements shown in Option B?</p> <p>1. Yes [ASK Q26] 2. No [SKIP TO Q27]</p>	<p>Q25. Would you like to revise the amount you gave as the most (you/your household) would be willing to pay?</p> <table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>-1 Not applicable</td> <td>744</td> <td>50</td> </tr> <tr> <td>1 Yes</td> <td>72</td> <td>4.8</td> </tr> <tr> <td>2 No</td> <td>671</td> <td>45.1</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table>		Frequency	%	-1 Not applicable	744	50	1 Yes	72	4.8	2 No	671	45.1	Total	1487	100																																																															
	Frequency	%																																																																													
-1 Not applicable	744	50																																																																													
1 Yes	72	4.8																																																																													
2 No	671	45.1																																																																													
Total	1487	100																																																																													
<p>26. What amount is the most (you / your household) would be willing to pay?</p> <p>a. ENTER AMOUNT b. DON'T KNOW c. REFUSED</p>	<p>Q26. What amount is the most (you/your household) would be willing to pay?</p> <table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>-1.00 Not applicable</td> <td>1415</td> <td>95.2</td> </tr> <tr> <td>0</td> <td>3</td> <td>0.2</td> </tr> <tr> <td>2</td> <td>1</td> <td>0.1</td> </tr> <tr> <td>8</td> <td>1</td> <td>0.1</td> </tr> <tr> <td>10</td> <td>7</td> <td>0.5</td> </tr> <tr> <td>12</td> <td>1</td> <td>0.1</td> </tr> <tr> <td>15</td> <td>1</td> <td>0.1</td> </tr> <tr> <td>20</td> <td>8</td> <td>0.5</td> </tr> <tr> <td>25</td> <td>2</td> <td>0.1</td> </tr> <tr> <td>30</td> <td>5</td> <td>0.3</td> </tr> <tr> <td>35</td> <td>4</td> <td>0.3</td> </tr> <tr> <td>40</td> <td>1</td> <td>0.1</td> </tr> <tr> <td>45</td> <td>1</td> <td>0.1</td> </tr> <tr> <td>50</td> <td>10</td> <td>0.7</td> </tr> <tr> <td>60</td> <td>1</td> <td>0.1</td> </tr> <tr> <td>80</td> <td>5</td> <td>0.3</td> </tr> <tr> <td>100</td> <td>10</td> <td>0.7</td> </tr> <tr> <td>120</td> <td>2</td> <td>0.1</td> </tr> <tr> <td>150</td> <td>2</td> <td>0.1</td> </tr> <tr> <td>180</td> <td>1</td> <td>0.1</td> </tr> <tr> <td>200</td> <td>3</td> <td>0.2</td> </tr> <tr> <td>250</td> <td>1</td> <td>0.1</td> </tr> <tr> <td>300</td> <td>1</td> <td>0.1</td> </tr> <tr> <td>350</td> <td>1</td> <td>0.1</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table>		Frequency	%	-1.00 Not applicable	1415	95.2	0	3	0.2	2	1	0.1	8	1	0.1	10	7	0.5	12	1	0.1	15	1	0.1	20	8	0.5	25	2	0.1	30	5	0.3	35	4	0.3	40	1	0.1	45	1	0.1	50	10	0.7	60	1	0.1	80	5	0.3	100	10	0.7	120	2	0.1	150	2	0.1	180	1	0.1	200	3	0.2	250	1	0.1	300	1	0.1	350	1	0.1	Total	1487	100
	Frequency	%																																																																													
-1.00 Not applicable	1415	95.2																																																																													
0	3	0.2																																																																													
2	1	0.1																																																																													
8	1	0.1																																																																													
10	7	0.5																																																																													
12	1	0.1																																																																													
15	1	0.1																																																																													
20	8	0.5																																																																													
25	2	0.1																																																																													
30	5	0.3																																																																													
35	4	0.3																																																																													
40	1	0.1																																																																													
45	1	0.1																																																																													
50	10	0.7																																																																													
60	1	0.1																																																																													
80	5	0.3																																																																													
100	10	0.7																																																																													
120	2	0.1																																																																													
150	2	0.1																																																																													
180	1	0.1																																																																													
200	3	0.2																																																																													
250	1	0.1																																																																													
300	1	0.1																																																																													
350	1	0.1																																																																													
Total	1487	100																																																																													

<p>27. The government can affect the way sites or areas are selected for improvement. [HAND RESPONDENT SHOWCARD 8]:</p> <ol style="list-style-type: none"> First improve the worst areas, as judged by scientists, regardless of where they are located, First improve areas near to where many people live or visit, or First improve areas where quick improvements can be achieved at low cost. <p>Which of these ways do you think should be followed?</p> <ol style="list-style-type: none"> DON'T KNOW [DO NOT READ] REFUSED <p>[RECORD a, b, c, d or e]</p>	<p>Q27. The government can affect the way sites or areas are selected for improvement. Which of these ways do you think should be followed?</p> <table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>-2 Not stated</td> <td>1</td> <td>0.1</td> </tr> <tr> <td>-1 Not applicable</td> <td>744</td> <td>50</td> </tr> <tr> <td>1 First improve the worst areas, as judged by scientists, regardless of where they are located,</td> <td>267</td> <td>18</td> </tr> <tr> <td>2 First improve areas near to where many people live or visit, or</td> <td>319</td> <td>21.5</td> </tr> <tr> <td>3 First improve areas where quick improvements can be achieved at low cost</td> <td>153</td> <td>10.3</td> </tr> <tr> <td>4 Don't know</td> <td>3</td> <td>0.2</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table>		Frequency	%	-2 Not stated	1	0.1	-1 Not applicable	744	50	1 First improve the worst areas, as judged by scientists, regardless of where they are located,	267	18	2 First improve areas near to where many people live or visit, or	319	21.5	3 First improve areas where quick improvements can be achieved at low cost	153	10.3	4 Don't know	3	0.2	Total	1487	100
	Frequency	%																							
-2 Not stated	1	0.1																							
-1 Not applicable	744	50																							
1 First improve the worst areas, as judged by scientists, regardless of where they are located,	267	18																							
2 First improve areas near to where many people live or visit, or	319	21.5																							
3 First improve areas where quick improvements can be achieved at low cost	153	10.3																							
4 Don't know	3	0.2																							
Total	1487	100																							
<p>SECTION D2: WATER QUALITY VALUATION (CV-CE)</p> <p>Water quality is affected by pollution from households, farms and businesses, and climate change. Some works are needed just to prevent water sites from getting worse. The government's policy is that the polluter will have to pay for these works. This will make some every day products more expensive and will increase household water and sewerage bills too.</p> <p>The government has estimated that these extra costs to each household, including yours, will be £X per year, in terms of higher water and sewerage bills and higher prices on everyday products.</p> <p>Improving the environment requires more cutting of pollution, which will make products more expensive and will further increase household water and sewerage bills.</p> <p>I am now going to show you a cards, which have two or three options for water environment improvements. For all the options, steps will be taken so there will be no worsening of the water environment at any site, the money will be ring-fenced to make the improvements, the most cost-effective works will be used, and information will be made available to the public on progress towards the improvements.</p> <p>On each card, I would like you to tell me which option you most prefer. The choices you make will be used to help decide how far to go with making improvements so will influence everyone's payment for improvements.</p>																									

CHOICE EXAMPLE

Please look at this card. [HAND RESPONDENT EXAMPLE CHOICE CARD]. In the top half of the table are some pie-charts. For each option (Option A – No Change and Option B) the first row of pie charts shows how much of your Local Area - the area on the first map - will be classified Light Blue, Mid Blue and Dark Blue in 8 years time, in 2015. The second row of pie charts, shows the same information but for the whole of England and Wales.

The left-hand Option A is the No Change option. There is no deterioration but also no improvements, so the High, Medium and Low Quality areas stay the same as shown in the maps earlier. For example, currently 45 percent of England and Wales is classified as Low Quality, 43 percent is Medium Quality and 12 percent is High Quality. These will stay the same if you choose this option and will result in the addition to household costs and water bills of £ X per year due to the steps to stop any worsening.

In Option B, some improvements are made and so the amount of Light Blue comes down, and the amount of Dark Blue goes up over the 8 years until 2015.

The third row shows the percentage of the water environment in England and Wales, and your local area, that will be Dark Blue quality in 20 years time. By this time, all Light Blue areas will have been tackled so that the remainder will all be Mid Blue. Those areas remaining Mid Blue will be evenly spread around the country. In Option A, there will be no improvements, and so the amount of Dark Blue will remain as it is now; in Option B, 75 percent of the water environment will be Dark Blue, with the remainder being Mid Blue.

The fourth row shows how much your household would pay every year for the improvements in the Option above. For Option A – No Change, there would be no additional charges due to improvements. For Option B, the increase in your household bills would be £Y every year.

These payments are in addition to the payment to ensure no water site gets worse, and would continue indefinitely.

Please review the options and think about how you would select between Option A and B taking into account the amount of the water environment improved, the amount of time it would take, and the increase in your household bills. You should choose Option A unless you think Option B is better.

It is important for us to get realistic choices from you regarding the values of these programmes, so before you make some real choices, please consider your household budget and all of the things that you and your household need or would prefer to spend your money on before you decide. **Please also bear in mind that your water bill and other household expenses may change in future for other reasons not related to the water environment, and your income may also change in**

<p><u>future. Your choices will influence how far to go with improvements, so will influence everyone's payment for improvements.</u></p>	
<p>CV EXERCISE I would now like to ask you to consider a new card, which is slightly different. [HAND RESPONDENT SHOWCARD "WILLINGNESS TO PAY CARD"] This card shows a single improvement option for the local and national water environments and shows an actual amount it will cost you to stop the water environment getting worse, but does not show the amount the additional improvements would cost you. Please consider Option B on this card carefully and think about how much, if anything, you (your household), are willing to pay in addition to have the improvements in Option B as well as the 'no worsening' of Option A – No Change.</p>	

<p>28. Please look at this card [HAND RESPONDENT "PAYMENT CARD"] What amount on this card, or any amount in between, is the most (you / your household) would be willing to pay, through increased water bills and other household payments every year, on top of the payment to stop the water environment getting worse, to have the improvements shown in Option B? a. ENTER AMOUNT b. DON'T KNOW c. REFUSED</p>	<p>Q28. What amount on this card, or any amount in between, is the most (you/your household) would be willing to pay, to have the improvements shown in Option B?</p>																																																																																																																																	
	<table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr><td>-1.00 Not applicable</td><td>743</td><td>50</td></tr> <tr><td>0</td><td>111</td><td>7.5</td></tr> <tr><td>1</td><td>2</td><td>0.1</td></tr> <tr><td>2</td><td>9</td><td>0.6</td></tr> <tr><td>5</td><td>37</td><td>2.5</td></tr> <tr><td>8</td><td>4</td><td>0.3</td></tr> <tr><td>10</td><td>67</td><td>4.5</td></tr> <tr><td>12</td><td>6</td><td>0.4</td></tr> <tr><td>15</td><td>17</td><td>1.1</td></tr> <tr><td>20</td><td>133</td><td>8.9</td></tr> <tr><td>24</td><td>1</td><td>0.1</td></tr> <tr><td>25</td><td>30</td><td>2</td></tr> <tr><td>26</td><td>1</td><td>0.1</td></tr> <tr><td>30</td><td>25</td><td>1.7</td></tr> <tr><td>35</td><td>6</td><td>0.4</td></tr> <tr><td>40</td><td>17</td><td>1.1</td></tr> <tr><td>45</td><td>4</td><td>0.3</td></tr> <tr><td>48</td><td>1</td><td>0.1</td></tr> <tr><td>50</td><td>94</td><td>6.3</td></tr> <tr><td>52</td><td>3</td><td>0.2</td></tr> <tr><td>60</td><td>36</td><td>2.4</td></tr> <tr><td>70</td><td>1</td><td>0.1</td></tr> <tr><td>80</td><td>4</td><td>0.3</td></tr> <tr><td>90</td><td>1</td><td>0.1</td></tr> <tr><td>99</td><td>1</td><td>0.1</td></tr> <tr><td>100</td><td>58</td><td>3.9</td></tr> <tr><td>120</td><td>20</td><td>1.3</td></tr> <tr><td>140</td><td>1</td><td>0.1</td></tr> <tr><td>150</td><td>2</td><td>0.1</td></tr> <tr><td>160</td><td>2</td><td>0.1</td></tr> <tr><td>180</td><td>4</td><td>0.3</td></tr> <tr><td>200</td><td>11</td><td>0.7</td></tr> <tr><td>225</td><td>1</td><td>0.1</td></tr> <tr><td>250</td><td>8</td><td>0.5</td></tr> <tr><td>300</td><td>2</td><td>0.1</td></tr> <tr><td>350</td><td>4</td><td>0.3</td></tr> <tr><td>400</td><td>1</td><td>0.1</td></tr> <tr><td>500</td><td>2</td><td>0.1</td></tr> <tr><td>1000</td><td>2</td><td>0.1</td></tr> <tr><td>8888.88 Refused</td><td>2</td><td>0.1</td></tr> <tr><td>9999.99 Don't know</td><td>13</td><td>0.9</td></tr> <tr><td>Total</td><td>1487</td><td>100</td></tr> </tbody> </table>		Frequency	%	-1.00 Not applicable	743	50	0	111	7.5	1	2	0.1	2	9	0.6	5	37	2.5	8	4	0.3	10	67	4.5	12	6	0.4	15	17	1.1	20	133	8.9	24	1	0.1	25	30	2	26	1	0.1	30	25	1.7	35	6	0.4	40	17	1.1	45	4	0.3	48	1	0.1	50	94	6.3	52	3	0.2	60	36	2.4	70	1	0.1	80	4	0.3	90	1	0.1	99	1	0.1	100	58	3.9	120	20	1.3	140	1	0.1	150	2	0.1	160	2	0.1	180	4	0.3	200	11	0.7	225	1	0.1	250	8	0.5	300	2	0.1	350	4	0.3	400	1	0.1	500	2	0.1	1000	2	0.1	8888.88 Refused	2	0.1	9999.99 Don't know	13	0.9	Total	1487	100
	Frequency	%																																																																																																																																
-1.00 Not applicable	743	50																																																																																																																																
0	111	7.5																																																																																																																																
1	2	0.1																																																																																																																																
2	9	0.6																																																																																																																																
5	37	2.5																																																																																																																																
8	4	0.3																																																																																																																																
10	67	4.5																																																																																																																																
12	6	0.4																																																																																																																																
15	17	1.1																																																																																																																																
20	133	8.9																																																																																																																																
24	1	0.1																																																																																																																																
25	30	2																																																																																																																																
26	1	0.1																																																																																																																																
30	25	1.7																																																																																																																																
35	6	0.4																																																																																																																																
40	17	1.1																																																																																																																																
45	4	0.3																																																																																																																																
48	1	0.1																																																																																																																																
50	94	6.3																																																																																																																																
52	3	0.2																																																																																																																																
60	36	2.4																																																																																																																																
70	1	0.1																																																																																																																																
80	4	0.3																																																																																																																																
90	1	0.1																																																																																																																																
99	1	0.1																																																																																																																																
100	58	3.9																																																																																																																																
120	20	1.3																																																																																																																																
140	1	0.1																																																																																																																																
150	2	0.1																																																																																																																																
160	2	0.1																																																																																																																																
180	4	0.3																																																																																																																																
200	11	0.7																																																																																																																																
225	1	0.1																																																																																																																																
250	8	0.5																																																																																																																																
300	2	0.1																																																																																																																																
350	4	0.3																																																																																																																																
400	1	0.1																																																																																																																																
500	2	0.1																																																																																																																																
1000	2	0.1																																																																																																																																
8888.88 Refused	2	0.1																																																																																																																																
9999.99 Don't know	13	0.9																																																																																																																																
Total	1487	100																																																																																																																																

29. How did you decide the amount you/your household would be willing to pay? [RECORD VERBATIM]	IN APPENDIX L																																																														
30. Would you say you are very sure, quite sure, not too sure or very unsure about the amount you stated as your willingness to pay? 1. Very sure 2. Quite sure 3. Not too sure 4. Very unsure 5. DON'T KNOW 6. REFUSED	<p>Q30. Would you say you are very sure, quite sure, not too sure or very unsure about the amount you stated as your willingness to pay?</p> <table border="1" data-bbox="1211 384 2022 587"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>-1 Not applicable</td> <td>743</td> <td>50</td> </tr> <tr> <td>1 Very sure</td> <td>417</td> <td>28</td> </tr> <tr> <td>2 Quite sure</td> <td>252</td> <td>16.9</td> </tr> <tr> <td>3 Not too sure</td> <td>58</td> <td>3.9</td> </tr> <tr> <td>4 Very unsure</td> <td>8</td> <td>0.5</td> </tr> <tr> <td>5 Don't know</td> <td>9</td> <td>0.6</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table>				Frequency	%	-1 Not applicable	743	50	1 Very sure	417	28	2 Quite sure	252	16.9	3 Not too sure	58	3.9	4 Very unsure	8	0.5	5 Don't know	9	0.6	Total	1487	100																																				
	Frequency	%																																																													
-1 Not applicable	743	50																																																													
1 Very sure	417	28																																																													
2 Quite sure	252	16.9																																																													
3 Not too sure	58	3.9																																																													
4 Very unsure	8	0.5																																																													
5 Don't know	9	0.6																																																													
Total	1487	100																																																													
31. In thinking about your choices and the amount you stated as your (household's) willingness to pay, did you consider any of the following: 31a the current costs of your water bill and other household expenses? 31b possible future increases in your water bill and other household expenses? 31c possible future changes in your income? 31d where you would find the money from for the extra payment [Code: 1. Yes; 2. No]	<p>Q31a. Consideration - The current costs of your water bill and other household expenses?</p> <table border="1" data-bbox="1211 635 2022 762"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>-1 Not applicable</td> <td>743</td> <td>50</td> </tr> <tr> <td>1 Yes</td> <td>644</td> <td>43.3</td> </tr> <tr> <td>2 No</td> <td>100</td> <td>6.7</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table> <p>Q31b. Consideration - Possible future increases in your water bill and other household expenses?</p> <table border="1" data-bbox="1211 802 2022 930"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>-1 Not applicable</td> <td>743</td> <td>50</td> </tr> <tr> <td>1 Yes</td> <td>578</td> <td>38.9</td> </tr> <tr> <td>2 No</td> <td>166</td> <td>11.2</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table> <p>Q31c. Consideration - Possible future changes in your income?</p> <table border="1" data-bbox="1211 970 2022 1098"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>-1 Not applicable</td> <td>743</td> <td>50</td> </tr> <tr> <td>1 Yes</td> <td>513</td> <td>34.5</td> </tr> <tr> <td>2 No</td> <td>231</td> <td>15.5</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table> <p>Q31d. Consideration - Where you would find the money from for the extra payment?</p> <table border="1" data-bbox="1211 1137 2022 1265"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>-1 Not applicable</td> <td>743</td> <td>50</td> </tr> <tr> <td>1 Yes</td> <td>558</td> <td>37.5</td> </tr> <tr> <td>2 No</td> <td>186</td> <td>12.5</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table>				Frequency	%	-1 Not applicable	743	50	1 Yes	644	43.3	2 No	100	6.7	Total	1487	100		Frequency	%	-1 Not applicable	743	50	1 Yes	578	38.9	2 No	166	11.2	Total	1487	100		Frequency	%	-1 Not applicable	743	50	1 Yes	513	34.5	2 No	231	15.5	Total	1487	100		Frequency	%	-1 Not applicable	743	50	1 Yes	558	37.5	2 No	186	12.5	Total	1487	100
	Frequency	%																																																													
-1 Not applicable	743	50																																																													
1 Yes	644	43.3																																																													
2 No	100	6.7																																																													
Total	1487	100																																																													
	Frequency	%																																																													
-1 Not applicable	743	50																																																													
1 Yes	578	38.9																																																													
2 No	166	11.2																																																													
Total	1487	100																																																													
	Frequency	%																																																													
-1 Not applicable	743	50																																																													
1 Yes	513	34.5																																																													
2 No	231	15.5																																																													
Total	1487	100																																																													
	Frequency	%																																																													
-1 Not applicable	743	50																																																													
1 Yes	558	37.5																																																													
2 No	186	12.5																																																													
Total	1487	100																																																													

<p>32. In light of your answers to the last set of questions, would you like to revise the amount you gave as the most (you / your household) would be willing to pay to stop the water environment getting worse and to have the improvements shown in Option B?</p> <p>1. Yes [ASK Q33] 2. No [SKIP TO Q34]</p>	<p>Q32 In light of your answers to the last three questions, would you like to revise the amount you gave as the most (you / your household) would be willing to pay to stop the water environment getting worse and to have the improvements shown in Option</p> <table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>-1 Not applicable</td> <td>743</td> <td>50</td> </tr> <tr> <td>1 Yes</td> <td>84</td> <td>5.6</td> </tr> <tr> <td>2 No</td> <td>660</td> <td>44.4</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table>		Frequency	%	-1 Not applicable	743	50	1 Yes	84	5.6	2 No	660	44.4	Total	1487	100																																																												
	Frequency	%																																																																										
-1 Not applicable	743	50																																																																										
1 Yes	84	5.6																																																																										
2 No	660	44.4																																																																										
Total	1487	100																																																																										
<p>33. What amount is the most (you / your household) would be willing to pay?</p> <p>a. ENTER AMOUNT b. DON'T KNOW c. REFUSED</p>	<p>Q33. What amount is the most (you/your household) would be willing to pay?</p> <table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>-1.00 Not applicable</td> <td>1403</td> <td>94.4</td> </tr> <tr> <td>0</td> <td>7</td> <td>0.5</td> </tr> <tr> <td>5</td> <td>6</td> <td>0.4</td> </tr> <tr> <td>10</td> <td>9</td> <td>0.6</td> </tr> <tr> <td>15</td> <td>4</td> <td>0.3</td> </tr> <tr> <td>20</td> <td>20</td> <td>1.3</td> </tr> <tr> <td>25</td> <td>4</td> <td>0.3</td> </tr> <tr> <td>29</td> <td>1</td> <td>0.1</td> </tr> <tr> <td>30</td> <td>3</td> <td>0.2</td> </tr> <tr> <td>40</td> <td>2</td> <td>0.1</td> </tr> <tr> <td>45</td> <td>1</td> <td>0.1</td> </tr> <tr> <td>50</td> <td>7</td> <td>0.5</td> </tr> <tr> <td>52</td> <td>1</td> <td>0.1</td> </tr> <tr> <td>60</td> <td>6</td> <td>0.4</td> </tr> <tr> <td>100</td> <td>5</td> <td>0.3</td> </tr> <tr> <td>140</td> <td>1</td> <td>0.1</td> </tr> <tr> <td>200</td> <td>1</td> <td>0.1</td> </tr> <tr> <td>250</td> <td>1</td> <td>0.1</td> </tr> <tr> <td>300</td> <td>1</td> <td>0.1</td> </tr> <tr> <td>350</td> <td>1</td> <td>0.1</td> </tr> <tr> <td>500</td> <td>1</td> <td>0.1</td> </tr> <tr> <td>888.88 Refused</td> <td>1</td> <td>0.1</td> </tr> <tr> <td>999.99 Don't know</td> <td>1</td> <td>0.1</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table>		Frequency	%	-1.00 Not applicable	1403	94.4	0	7	0.5	5	6	0.4	10	9	0.6	15	4	0.3	20	20	1.3	25	4	0.3	29	1	0.1	30	3	0.2	40	2	0.1	45	1	0.1	50	7	0.5	52	1	0.1	60	6	0.4	100	5	0.3	140	1	0.1	200	1	0.1	250	1	0.1	300	1	0.1	350	1	0.1	500	1	0.1	888.88 Refused	1	0.1	999.99 Don't know	1	0.1	Total	1487	100
	Frequency	%																																																																										
-1.00 Not applicable	1403	94.4																																																																										
0	7	0.5																																																																										
5	6	0.4																																																																										
10	9	0.6																																																																										
15	4	0.3																																																																										
20	20	1.3																																																																										
25	4	0.3																																																																										
29	1	0.1																																																																										
30	3	0.2																																																																										
40	2	0.1																																																																										
45	1	0.1																																																																										
50	7	0.5																																																																										
52	1	0.1																																																																										
60	6	0.4																																																																										
100	5	0.3																																																																										
140	1	0.1																																																																										
200	1	0.1																																																																										
250	1	0.1																																																																										
300	1	0.1																																																																										
350	1	0.1																																																																										
500	1	0.1																																																																										
888.88 Refused	1	0.1																																																																										
999.99 Don't know	1	0.1																																																																										
Total	1487	100																																																																										

<p>CE EXERCISE</p> <p>34. I will now show you a card which is exactly the same as the two option examples except the payment amounts are filled in and you have a choice of three Options A, B, or C. Please select your preferred option, A, B, or C. [RECORD OPTION CHOSEN FOR EXAMPLE CHOICE CARD]</p> <p>34a Why did you select this Option? [RECORD VERBATIM] [IF RESPONDENT CHOOSES "Option A - No Change" AND PROVIDES AN EXPLANATION LIKE: "THE ENVIRONMENT HAS IMPROVED FOR ZERO COST", INTERVIEWER SHOULD READ: "There will be no improvements if Option A is chosen, would you like to re-consider your choice?" [RECORD REVISED RESPONSE AS Q34 AND REPEAT Q34a]</p>	<p>Q34. Please select your preferred option, A, B, or C</p> <table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>-1 Not applicable</td> <td>743</td> <td>50</td> </tr> <tr> <td>1 Option A</td> <td>159</td> <td>10.7</td> </tr> <tr> <td>2 Option B</td> <td>346</td> <td>23.3</td> </tr> <tr> <td>3 Option C</td> <td>239</td> <td>16.1</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table> <p>Q34b IN APPENDIX L</p>		Frequency	%	-1 Not applicable	743	50	1 Option A	159	10.7	2 Option B	346	23.3	3 Option C	239	16.1	Total	1487	100																																				
	Frequency	%																																																					
-1 Not applicable	743	50																																																					
1 Option A	159	10.7																																																					
2 Option B	346	23.3																																																					
3 Option C	239	16.1																																																					
Total	1487	100																																																					
<p>I'd now like you to repeat what you have just done for each of the following cards. [HAND RESPONDENT REMAINING CHOICE CARDS] Most will have three options to choose between, but one card will only have two options. Option A - No Change will be the same for every card.</p>																																																							
<p>35. [RECORD OPTION CHOSEN FOR CHOICE CARD 1] 36. [RECORD OPTION CHOSEN FOR CHOICE CARD 2] 37. [RECORD OPTION CHOSEN FOR CHOICE CARD 3] 38. [RECORD OPTION CHOSEN FOR CHOICE CARD 4] 39. [RECORD OPTION CHOSEN FOR CHOICE CARD 5] 40. [RECORD OPTION CHOSEN FOR CHOICE CARD 6] 41. [RECORD OPTION CHOSEN FOR CHOICE CARD 7] 42. [RECORD OPTION CHOSEN FOR CHOICE CARD 8]</p>	<p>Q35. Preferred payment option - Choice card 1?</p> <table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>-1 Not applicable</td> <td>743</td> <td>50</td> </tr> <tr> <td>1 Option A</td> <td>183</td> <td>12.3</td> </tr> <tr> <td>2 Option B</td> <td>395</td> <td>26.6</td> </tr> <tr> <td>3 Option C</td> <td>166</td> <td>11.2</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table> <p>Q36. Preferred payment option - Choice card 2?</p> <table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>-1 Not applicable</td> <td>743</td> <td>50</td> </tr> <tr> <td>1 Option A</td> <td>151</td> <td>10.2</td> </tr> <tr> <td>2 Option B</td> <td>324</td> <td>21.8</td> </tr> <tr> <td>3 Option C</td> <td>269</td> <td>18.1</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table> <p>Q37. Preferred payment option - Choice card 3?</p> <table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>-1 Not applicable</td> <td>743</td> <td>50</td> </tr> <tr> <td>1 Option A</td> <td>140</td> <td>9.4</td> </tr> <tr> <td>2 Option B</td> <td>321</td> <td>21.6</td> </tr> <tr> <td>3 Option C</td> <td>283</td> <td>19</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table>		Frequency	%	-1 Not applicable	743	50	1 Option A	183	12.3	2 Option B	395	26.6	3 Option C	166	11.2	Total	1487	100		Frequency	%	-1 Not applicable	743	50	1 Option A	151	10.2	2 Option B	324	21.8	3 Option C	269	18.1	Total	1487	100		Frequency	%	-1 Not applicable	743	50	1 Option A	140	9.4	2 Option B	321	21.6	3 Option C	283	19	Total	1487	100
	Frequency	%																																																					
-1 Not applicable	743	50																																																					
1 Option A	183	12.3																																																					
2 Option B	395	26.6																																																					
3 Option C	166	11.2																																																					
Total	1487	100																																																					
	Frequency	%																																																					
-1 Not applicable	743	50																																																					
1 Option A	151	10.2																																																					
2 Option B	324	21.8																																																					
3 Option C	269	18.1																																																					
Total	1487	100																																																					
	Frequency	%																																																					
-1 Not applicable	743	50																																																					
1 Option A	140	9.4																																																					
2 Option B	321	21.6																																																					
3 Option C	283	19																																																					
Total	1487	100																																																					

	Q38. Preferred payment option - Choice card 4?		
		Frequency	%
	-1 Not applicable	743	50
	1 Option A	187	12.6
	2 Option B	386	26
	3 Option C	171	11.5
	Total	1487	100
	Q39. Preferred payment option - Choice card 5?		
		Frequency	%
	-1 Not applicable	743	50
	1 Option A	153	10.3
	2 Option B	311	20.9
	3 Option C	280	18.8
	Total	1487	100
	Q40. Preferred payment option - Choice card 6?		
		Frequency	%
	-1 Not applicable	743	50
	1 Option A	150	10.1
	2 Option B	331	22.3
	3 Option C	263	17.7
	Total	1487	100
	Q41. Preferred payment option - Choice card 7?		
		Frequency	%
	-1 Not applicable	743	50
1 Option A	155	10.4	
2 Option B	332	22.3	
3 Option C	257	17.3	
Total	1487	100	
Q42. Preferred payment option - Choice card 8?			
	Frequency	%	
-1 Not applicable	743	50	
1 Option A	171	11.5	
2 Option B	385	25.9	
3 Option C	188	12.6	
Total	1487	100	
43. In making your choices between options on the cards, what factors did you consider, and which were the most important? [RECORD VERBATIM]	IN APPENDIX L		

<p>44. The government can affect the way in which sites or areas are selected for improvement. [HAND RESPONDENT SHOWCARD 8]: Which of these ways do you think should be followed? [RECORD a, b, c, d or e]</p> <ol style="list-style-type: none"> First improve the worst areas, as judged by scientists, regardless of where they are located, First improve areas near to where many people live or visit, or First improve areas where quick improvements can be achieved at low cost. DON'T KNOW [DO NOT READ] REFUSED 	<p>Q44. The government can affect the way in which sites or areas are selected for improvement. Which of these ways do you think should be followed?</p> <table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>-1 Not applicable</td> <td>743</td> <td>50</td> </tr> <tr> <td>1 First improve the worst areas, as judged by scientists, regardless of where they are located,</td> <td>279</td> <td>18.8</td> </tr> <tr> <td>2 First improve areas near to where many people live or visit</td> <td>338</td> <td>22.7</td> </tr> <tr> <td>3 First improve areas where quick improvements can be achieved at low cost</td> <td>123</td> <td>8.3</td> </tr> <tr> <td>4 Don't know</td> <td>4</td> <td>0.3</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table>		Frequency	%	-1 Not applicable	743	50	1 First improve the worst areas, as judged by scientists, regardless of where they are located,	279	18.8	2 First improve areas near to where many people live or visit	338	22.7	3 First improve areas where quick improvements can be achieved at low cost	123	8.3	4 Don't know	4	0.3	Total	1487	100																					
	Frequency	%																																									
-1 Not applicable	743	50																																									
1 First improve the worst areas, as judged by scientists, regardless of where they are located,	279	18.8																																									
2 First improve areas near to where many people live or visit	338	22.7																																									
3 First improve areas where quick improvements can be achieved at low cost	123	8.3																																									
4 Don't know	4	0.3																																									
Total	1487	100																																									
<p>SECTION E: BACKGROUND INFORMATION In order to ensure that we survey people from all walks of life, I would now like to ask you some questions about you and your household. I would like to reassure you that all responses will be kept strictly confidential.</p> <table border="1"> <tr> <th colspan="2">Record sex</th> </tr> <tr> <td>Male</td> <td>1</td> </tr> <tr> <td>Female</td> <td>2</td> </tr> </table> <p>45.</p>	Record sex		Male	1	Female	2	<p>Q45. Gender</p> <table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>1 Male</td> <td>641</td> <td>43.1</td> </tr> <tr> <td>2 Female</td> <td>846</td> <td>56.9</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table>		Frequency	%	1 Male	641	43.1	2 Female	846	56.9	Total	1487	100																								
Record sex																																											
Male	1																																										
Female	2																																										
	Frequency	%																																									
1 Male	641	43.1																																									
2 Female	846	56.9																																									
Total	1487	100																																									
<p>46. Please could you tell me your age? Alternatively please could you indicate the appropriate category on this card? [HAND RESPONDENT AGE CARD]</p> <table border="1"> <tr> <td>A</td> <td>18-24</td> </tr> <tr> <td>B</td> <td>25-29</td> </tr> <tr> <td>C</td> <td>30-44</td> </tr> <tr> <td>D</td> <td>45-59</td> </tr> <tr> <td>E</td> <td>60-64</td> </tr> <tr> <td>F</td> <td>65-74</td> </tr> </table>	A	18-24	B	25-29	C	30-44	D	45-59	E	60-64	F	65-74	<p>Q46. Age</p> <table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>1 18-24</td> <td>102</td> <td>6.9</td> </tr> <tr> <td>2 25-29</td> <td>103</td> <td>6.9</td> </tr> <tr> <td>3 30-44</td> <td>384</td> <td>25.8</td> </tr> <tr> <td>4 45-59</td> <td>402</td> <td>27</td> </tr> <tr> <td>5 60-64</td> <td>179</td> <td>12</td> </tr> <tr> <td>6 65-74</td> <td>203</td> <td>13.7</td> </tr> <tr> <td>7 75+</td> <td>113</td> <td>7.6</td> </tr> <tr> <td>8 Refused</td> <td>1</td> <td>0.1</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table>		Frequency	%	1 18-24	102	6.9	2 25-29	103	6.9	3 30-44	384	25.8	4 45-59	402	27	5 60-64	179	12	6 65-74	203	13.7	7 75+	113	7.6	8 Refused	1	0.1	Total	1487	100
A	18-24																																										
B	25-29																																										
C	30-44																																										
D	45-59																																										
E	60-64																																										
F	65-74																																										
	Frequency	%																																									
1 18-24	102	6.9																																									
2 25-29	103	6.9																																									
3 30-44	384	25.8																																									
4 45-59	402	27																																									
5 60-64	179	12																																									
6 65-74	203	13.7																																									
7 75+	113	7.6																																									
8 Refused	1	0.1																																									
Total	1487	100																																									

<p>47. [HAND RESPONDENT EDUCATION CARD] What is the highest level of education you completed on this card? Do not include specialized schools like secretarial, art, or trade schools. [RECORD a, b, c, d, e, f or g]</p> <ol style="list-style-type: none"> a. Primary b. O levels, GCSE or CSE (1 or more passes), NVQ Level 1 or Foundation Level GNVQ c. 5 or more O levels, CSE grade 1's or GCSE grades A-C; School Certificate; 1 or more A levels or AS levels; NVQ level 2 or Intermediate GNVQ. d. 2 or more A levels; 4 or more AS levels; Higher School Certificate; NVQ level 3; or Advanced GNVQ. e. First Degree, Higher Degree, NVQ levels 4 and 5; HNC; HND; Qualified Teacher Status; Qualified Medical Doctor; Qualified Dentist; Qualified Nurse; Midwife; or Health Visitor. f. DON'T KNOW g. REFUSED 	<p>Q47. Highest level of education you completed?</p> <table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>1 Primary</td> <td>246</td> <td>16.5</td> </tr> <tr> <td>2 O levels, GCSE or CSE (1 or more passes), NVQ Level 1 or Foundation Level GNVQ</td> <td>414</td> <td>27.8</td> </tr> <tr> <td>3 5 or more O levels, CSE grade 1's or GCSE grades A-C; School Certificate...</td> <td>193</td> <td>13</td> </tr> <tr> <td>4 2 or more A levels; 4 or more AS levels; Higher School Certificate; NVQ level 3; or Advanced GNVQ</td> <td>171</td> <td>11.5</td> </tr> <tr> <td>5 First Degree, Higher Degree, NVQ levels 4 and 5; HNC; HND; Qualified Teacher Status...</td> <td>402</td> <td>27</td> </tr> <tr> <td>6 Don't know</td> <td>44</td> <td>3</td> </tr> <tr> <td>7 Refused</td> <td>17</td> <td>1.1</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table>		Frequency	%	1 Primary	246	16.5	2 O levels, GCSE or CSE (1 or more passes), NVQ Level 1 or Foundation Level GNVQ	414	27.8	3 5 or more O levels, CSE grade 1's or GCSE grades A-C; School Certificate...	193	13	4 2 or more A levels; 4 or more AS levels; Higher School Certificate; NVQ level 3; or Advanced GNVQ	171	11.5	5 First Degree, Higher Degree, NVQ levels 4 and 5; HNC; HND; Qualified Teacher Status...	402	27	6 Don't know	44	3	7 Refused	17	1.1	Total	1487	100															
	Frequency	%																																									
1 Primary	246	16.5																																									
2 O levels, GCSE or CSE (1 or more passes), NVQ Level 1 or Foundation Level GNVQ	414	27.8																																									
3 5 or more O levels, CSE grade 1's or GCSE grades A-C; School Certificate...	193	13																																									
4 2 or more A levels; 4 or more AS levels; Higher School Certificate; NVQ level 3; or Advanced GNVQ	171	11.5																																									
5 First Degree, Higher Degree, NVQ levels 4 and 5; HNC; HND; Qualified Teacher Status...	402	27																																									
6 Don't know	44	3																																									
7 Refused	17	1.1																																									
Total	1487	100																																									
<p>48a. [HAND RESPONDENT EMPLOYMENT STATUS CARD] Which of the categories on this card describes your current employment status? [RECORD A-L]</p> <p>48b What is your partner's employment status?</p>	<p>Q48a. Which of the categories on this card describes your current employment status?</p> <table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>1 Working - Full time employee (31+ hrs)</td> <td>462</td> <td>31.1</td> </tr> <tr> <td>2 Working - Part-time employee (1-30 hours)</td> <td>216</td> <td>14.5</td> </tr> <tr> <td>3 Working - Self employed</td> <td>60</td> <td>4</td> </tr> <tr> <td>4 Working and full time student</td> <td>13</td> <td>0.9</td> </tr> <tr> <td>5 Not working - seeking work</td> <td>65</td> <td>4.4</td> </tr> <tr> <td>6 Not working - Full time student</td> <td>17</td> <td>1.1</td> </tr> <tr> <td>7 Not working - retired</td> <td>424</td> <td>28.5</td> </tr> <tr> <td>8 Not working - looking after home/children</td> <td>98</td> <td>6.6</td> </tr> <tr> <td>9 Not working - permanently sick/disabled</td> <td>73</td> <td>4.9</td> </tr> <tr> <td>10 Not working - Other</td> <td>57</td> <td>3.8</td> </tr> <tr> <td>11 Don't know</td> <td>1</td> <td>0.1</td> </tr> <tr> <td>12 Refused</td> <td>1</td> <td>0.1</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table>		Frequency	%	1 Working - Full time employee (31+ hrs)	462	31.1	2 Working - Part-time employee (1-30 hours)	216	14.5	3 Working - Self employed	60	4	4 Working and full time student	13	0.9	5 Not working - seeking work	65	4.4	6 Not working - Full time student	17	1.1	7 Not working - retired	424	28.5	8 Not working - looking after home/children	98	6.6	9 Not working - permanently sick/disabled	73	4.9	10 Not working - Other	57	3.8	11 Don't know	1	0.1	12 Refused	1	0.1	Total	1487	100
	Frequency	%																																									
1 Working - Full time employee (31+ hrs)	462	31.1																																									
2 Working - Part-time employee (1-30 hours)	216	14.5																																									
3 Working - Self employed	60	4																																									
4 Working and full time student	13	0.9																																									
5 Not working - seeking work	65	4.4																																									
6 Not working - Full time student	17	1.1																																									
7 Not working - retired	424	28.5																																									
8 Not working - looking after home/children	98	6.6																																									
9 Not working - permanently sick/disabled	73	4.9																																									
10 Not working - Other	57	3.8																																									
11 Don't know	1	0.1																																									
12 Refused	1	0.1																																									
Total	1487	100																																									

<p>[RECORD A-M]</p> <table border="1"> <tr><td>A</td><td>Working full-time employee (31+ hours)</td></tr> <tr><td>B</td><td>Working part-time employee (1-30 hours)</td></tr> <tr><td>C</td><td>Working - self-employed</td></tr> <tr><td>D</td><td>Working and full time student</td></tr> <tr><td>E</td><td>Not working - seeking work</td></tr> <tr><td>F</td><td>Not working - full time student</td></tr> <tr><td>G</td><td>Not working - retired</td></tr> <tr><td>H</td><td>Not working - looking after home/children</td></tr> <tr><td>I</td><td>Not working - permanently sick / disabled</td></tr> <tr><td>J</td><td>Not working - other</td></tr> <tr><td>K</td><td>Don't know</td></tr> <tr><td>L</td><td>Refused</td></tr> <tr><td>M</td><td>NO PARTNER</td></tr> </table>	A	Working full-time employee (31+ hours)	B	Working part-time employee (1-30 hours)	C	Working - self-employed	D	Working and full time student	E	Not working - seeking work	F	Not working - full time student	G	Not working - retired	H	Not working - looking after home/children	I	Not working - permanently sick / disabled	J	Not working - other	K	Don't know	L	Refused	M	NO PARTNER	<p>Q48b. Which of the categories on this card describes your partner's current employment status?</p> <table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr><td>1 Working - Full time employee (31+ hrs)</td><td>428</td><td>28.8</td></tr> <tr><td>2 Working - Part-time employee (1-30 hours)</td><td>101</td><td>6.8</td></tr> <tr><td>3 Working - Self employed</td><td>46</td><td>3.1</td></tr> <tr><td>4 Working and full time student</td><td>3</td><td>0.2</td></tr> <tr><td>5 Not working - seeking work</td><td>24</td><td>1.6</td></tr> <tr><td>6 Not working - Full time student</td><td>6</td><td>0.4</td></tr> <tr><td>7 Not working - retired</td><td>222</td><td>14.9</td></tr> <tr><td>8 Not working - looking after home/children</td><td>43</td><td>2.9</td></tr> <tr><td>9 Not working - permanently sick/disabled</td><td>21</td><td>1.4</td></tr> <tr><td>10 Not working - Other</td><td>29</td><td>2</td></tr> <tr><td>12 Refused</td><td>4</td><td>0.3</td></tr> <tr><td>13 No Partner</td><td>560</td><td>37.7</td></tr> <tr><td>Total</td><td>1487</td><td>100</td></tr> </tbody> </table>		Frequency	%	1 Working - Full time employee (31+ hrs)	428	28.8	2 Working - Part-time employee (1-30 hours)	101	6.8	3 Working - Self employed	46	3.1	4 Working and full time student	3	0.2	5 Not working - seeking work	24	1.6	6 Not working - Full time student	6	0.4	7 Not working - retired	222	14.9	8 Not working - looking after home/children	43	2.9	9 Not working - permanently sick/disabled	21	1.4	10 Not working - Other	29	2	12 Refused	4	0.3	13 No Partner	560	37.7	Total	1487	100
A	Working full-time employee (31+ hours)																																																																				
B	Working part-time employee (1-30 hours)																																																																				
C	Working - self-employed																																																																				
D	Working and full time student																																																																				
E	Not working - seeking work																																																																				
F	Not working - full time student																																																																				
G	Not working - retired																																																																				
H	Not working - looking after home/children																																																																				
I	Not working - permanently sick / disabled																																																																				
J	Not working - other																																																																				
K	Don't know																																																																				
L	Refused																																																																				
M	NO PARTNER																																																																				
	Frequency	%																																																																			
1 Working - Full time employee (31+ hrs)	428	28.8																																																																			
2 Working - Part-time employee (1-30 hours)	101	6.8																																																																			
3 Working - Self employed	46	3.1																																																																			
4 Working and full time student	3	0.2																																																																			
5 Not working - seeking work	24	1.6																																																																			
6 Not working - Full time student	6	0.4																																																																			
7 Not working - retired	222	14.9																																																																			
8 Not working - looking after home/children	43	2.9																																																																			
9 Not working - permanently sick/disabled	21	1.4																																																																			
10 Not working - Other	29	2																																																																			
12 Refused	4	0.3																																																																			
13 No Partner	560	37.7																																																																			
Total	1487	100																																																																			
<p>49. [INTERVIEWER TO ENTER SEC CODE FROM RECRUITMENT QUESTIONNAIRE]</p> <ul style="list-style-type: none"> 1.1 Large employers and higher managerial occupations 1.2 Higher professional occupations 2. Lower managerial and professional occupations 3. Intermediate occupations 4. Small employers and own account workers 5. Lower supervisory and technical occupations 6. Semi-routine occupations 7. Routine occupations 8. Never worked and long-term unemployed Not classified 	<p>Q49. SEC</p> <table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr><td>1 Large employers and higher managerial occupations</td><td>21</td><td>1.4</td></tr> <tr><td>2 Higher professional occupations</td><td>76</td><td>5.1</td></tr> <tr><td>3 Lower managerial and professional occupations</td><td>56</td><td>3.8</td></tr> <tr><td>4 Intermediate occupations</td><td>35</td><td>2.4</td></tr> <tr><td>5 Small employers and own account workers</td><td>31</td><td>2.1</td></tr> <tr><td>6 Lower supervisory and technical occupations</td><td>44</td><td>3</td></tr> <tr><td>7 Semi-routine occupations</td><td>33</td><td>2.2</td></tr> <tr><td>8 Routine occupations</td><td>56</td><td>3.8</td></tr> <tr><td>9 Never worked and long-term unemployed</td><td>30</td><td>2</td></tr> <tr><td>10 Not classified</td><td>1105</td><td>74.3</td></tr> <tr><td>Total</td><td>1487</td><td>100</td></tr> </tbody> </table>		Frequency	%	1 Large employers and higher managerial occupations	21	1.4	2 Higher professional occupations	76	5.1	3 Lower managerial and professional occupations	56	3.8	4 Intermediate occupations	35	2.4	5 Small employers and own account workers	31	2.1	6 Lower supervisory and technical occupations	44	3	7 Semi-routine occupations	33	2.2	8 Routine occupations	56	3.8	9 Never worked and long-term unemployed	30	2	10 Not classified	1105	74.3	Total	1487	100																																
	Frequency	%																																																																			
1 Large employers and higher managerial occupations	21	1.4																																																																			
2 Higher professional occupations	76	5.1																																																																			
3 Lower managerial and professional occupations	56	3.8																																																																			
4 Intermediate occupations	35	2.4																																																																			
5 Small employers and own account workers	31	2.1																																																																			
6 Lower supervisory and technical occupations	44	3																																																																			
7 Semi-routine occupations	33	2.2																																																																			
8 Routine occupations	56	3.8																																																																			
9 Never worked and long-term unemployed	30	2																																																																			
10 Not classified	1105	74.3																																																																			
Total	1487	100																																																																			

50. [HAND RESPONDENT INCOME CARD] For classification purposes only, please tell me which category best describes the total income that you (and all other members of this household) earned during 2006 before taxes. Please be sure to include each member's wages and salaries, as well as net income from any business, pensions, benefits dividends, interest, tips, or other income. Just tell me the letter that best describes your household's income.

RECORD LETTER FROM TABLE BELOW

	Per Week	Per Year
A	Up to £86	Under £4,500
B	£87-£125	£4,500-£6,499
C	£126-£144	£6,500 - £7,499
D	£145-£182	£7,500 - £9,499
E	£183-£221	£9,500-£11,499
F	£222-£259	£11,500-£13,499
G	£260-£298	£13,500-£15,499
H	£299-£336	£15,500 - £17,499
I	£337-£480	£17,500 - £24,999
J	£481-£576	£25,000 - £29,999
K	£577-£769	£30,000 - £39,999
L	£770-£961	£40,000 - £49,999
M	£962-£1,441	£50,000 - £74,999
N	£1,442-£1,922	£75,000 - £99,999
O	£1,923 or over	£100,000 +

P DON'T KNOW

Q REFUSED

Q50. Total income earned during 2006 before taxes

	Frequency	%
1 Up to £86 per week (Under £4,500 per year)	52	3.5
2 £87-£125 per week (£4,500-£6,499 per year)	78	5.2
3 £126-£144 per week (£6,500-£7,499 per year)	51	3.4
4 £145-£182 per week (£7,500-£9,499 per year)	65	4.4
5 £183-£221 per week (£9,500-£11,499 per year)	71	4.8
6 £222-£259 per week (£11,500-£13,499 per year)	59	4
7 £260-£298 per week (£13,500-£15,499 per year)	68	4.6
8 £299-£336 per week (£15,500-£17,499 per year)	64	4.3
9 £337-£480 per week (£17,500-£24,499 per year)	131	8.8
10 £481-£576 per week (£25,000-£29,999 per year)	91	6.1
11 £577-£769 per week (£30,000-£39,999 per year)	120	8.1
12 £770-£961 per week (£40,000-£49,999 per year)	79	5.3
13 £962-£1,441 per week (£50,000-£74,999 per year)	84	5.6
14 £1,442-£1,922 per week (£75,000-£99,999 per year)	25	1.7
15 £1,923 or over per week (£100,000+ per year)	22	1.5
16 Don't know	137	9.2
17 Refused	290	19.5
Total	1487	100

51. [HAND RESPONDENT BENEFITS CARD] Are you, or is your partner, in receipt of any of the benefits on this card? [CODE ALL THAT APPLY]

- | | |
|---|---|
| A | Unemployment related benefits, or National Insurance Credits |
| B | Income support (not as an unemployed person) |
| C | Sickness or disability benefits (not including tax credits) |
| D | State pension |
| E | Family related benefits (excluding child benefit and tax credits) |
| F | Child benefit |
| G | Cold weather payment |
| H | Housing, or council tax benefits |
| I | Tax credits |
| J | Other (please specify) |
| K | |

Q51A. Unemployment related benefits, or National Insurance Credits

	Frequency	%
0	1423	95.7
1	64	4.3
Total	1487	100

Q51B Income support (not as an unemployed person)

	Frequency	%
0	1381	92.9
1	106	7.1
Total	1487	100

Q51C Sickness or disability benefits (not including tax credits)

	Frequency	%
0	1355	91.1
1	132	8.9
Total	1487	100

Q51D State pension

	Frequency	%
0	1159	77.9
1	328	22.1
Total	1487	100

Q51E Family related benefits (excluding child benefit and tax credits)

	Frequency	%
0	1452	97.6
1	35	2.4
Total	1487	100

Q51F Child benefit

	Frequency	%
0	1211	81.4
1	276	18.6
Total	1487	100

Q51G Cold weather payment

	Frequency	%
0	1314	88.4
1	173	11.6
Total	1487	100

Q51H Housing, or council tax benefits

	Frequency	%
0	1294	87
1	193	13
Total	1487	100

	<p>Q51I Tax credits</p> <table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>1357</td> <td>91.3</td> </tr> <tr> <td>1</td> <td>130</td> <td>8.7</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table> <p>Q51J Other</p> <table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>1415</td> <td>95.2</td> </tr> <tr> <td>1</td> <td>72</td> <td>4.8</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table> <p>Q51J Other</p> <p>Q51K None</p> <table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>909</td> <td>61.1</td> </tr> <tr> <td>1</td> <td>578</td> <td>38.9</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table> <p>Q51L Don't know</p> <table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>1471</td> <td>98.9</td> </tr> <tr> <td>1</td> <td>16</td> <td>1.1</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table>		Frequency	%	0	1357	91.3	1	130	8.7	Total	1487	100		Frequency	%	0	1415	95.2	1	72	4.8	Total	1487	100		Frequency	%	0	909	61.1	1	578	38.9	Total	1487	100		Frequency	%	0	1471	98.9	1	16	1.1	Total	1487	100
	Frequency	%																																															
0	1357	91.3																																															
1	130	8.7																																															
Total	1487	100																																															
	Frequency	%																																															
0	1415	95.2																																															
1	72	4.8																																															
Total	1487	100																																															
	Frequency	%																																															
0	909	61.1																																															
1	578	38.9																																															
Total	1487	100																																															
	Frequency	%																																															
0	1471	98.9																																															
1	16	1.1																																															
Total	1487	100																																															
<p>52. [HAND RESPONDENT ACCOMMODATION STATUS CARD] Which of these ways describes how you occupy your accommodation?</p>																																																	
<p>A Own outright B Own with a mortgage or loan C Shared ownership D Rented from council / local authority E Rented from Housing Association / registered social landlord F Rented from private landlord or letting agency G Rented from other H Don't know I Refused</p>	<p>Q52. Which of these ways describes how you occupy your accommodation?</p> <table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>1 Own outright</td> <td>517</td> <td>34.8</td> </tr> <tr> <td>2 Own with a mortgage or loan</td> <td>395</td> <td>26.6</td> </tr> <tr> <td>3 Shared ownership</td> <td>13</td> <td>0.9</td> </tr> <tr> <td>4 Rented from council / local authority</td> <td>266</td> <td>17.9</td> </tr> <tr> <td>5 Rented from Housing Association / registered social landlord</td> <td>91</td> <td>6.1</td> </tr> <tr> <td>6 Rented from private landlord or letting agency</td> <td>161</td> <td>10.8</td> </tr> <tr> <td>7 Rented from other</td> <td>16</td> <td>1.1</td> </tr> <tr> <td>8 Don't know</td> <td>4</td> <td>0.3</td> </tr> <tr> <td>9 Refused</td> <td>24</td> <td>1.6</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table>		Frequency	%	1 Own outright	517	34.8	2 Own with a mortgage or loan	395	26.6	3 Shared ownership	13	0.9	4 Rented from council / local authority	266	17.9	5 Rented from Housing Association / registered social landlord	91	6.1	6 Rented from private landlord or letting agency	161	10.8	7 Rented from other	16	1.1	8 Don't know	4	0.3	9 Refused	24	1.6	Total	1487	100															
	Frequency	%																																															
1 Own outright	517	34.8																																															
2 Own with a mortgage or loan	395	26.6																																															
3 Shared ownership	13	0.9																																															
4 Rented from council / local authority	266	17.9																																															
5 Rented from Housing Association / registered social landlord	91	6.1																																															
6 Rented from private landlord or letting agency	161	10.8																																															
7 Rented from other	16	1.1																																															
8 Don't know	4	0.3																																															
9 Refused	24	1.6																																															
Total	1487	100																																															

53. Are you or any persons in your household members of organisations which are involved with lakes, streams, rivers, estuaries or coastal waters? These organisations might include fishing clubs, surfing groups, environmental groups, local council groups focusing on water. MULTICODE

A	Royal Society for the Protection of Birds (RSPB)
B	Surfers Against Sewage / Marine protection society
C	Canoeing/Boating/Rowing/Windsurfing club
D	Angling club
E	Ramblers Association
F	Friends of the Earth / Greenpeace
G	National Trust
H	Local wildlife trust or environmental organisation
I	Other similar organisation
J	Not a member of any similar organisation

Q53A Royal Society for the Protection of Birds (RSPB)

	Frequency	%
0	1404	94.4
1	83	5.6
Total	1487	100

Q53B Surfers Against Sewage / Marine protection society

	Frequency	%
0	1478	99.4
1	9	0.6
Total	1487	100

Q53C Canoeing/Boating/Rowing/Windsurfing club

	Frequency	%
0	1465	98.5
1	22	1.5
Total	1487	100

Q53D Angling club

	Frequency	%
0	1462	98.3
1	25	1.7
Total	1487	100

Q53E Ramblers Association

	Frequency	%
0	1457	98
1	30	2
Total	1487	100

Q53F Friends of the Earth / Greenpeace

	Frequency	%
0	1448	97.4
1	39	2.6
Total	1487	100

Q53G National Trust

	Frequency	%
0	1271	85.5
1	216	14.5
Total	1487	100

Q53H Local wildlife trust or environmental organisation

	Frequency	%
0	1418	95.4
1	69	4.6
Total	1487	100

	<table border="1"> <thead> <tr> <th colspan="3">Q53I Other similar organisation</th> </tr> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>1382</td> <td>92.9</td> </tr> <tr> <td>1</td> <td>105</td> <td>7.1</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th colspan="3">Q53J Not a member of any similar organisation</th> </tr> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>402</td> <td>27</td> </tr> <tr> <td>1</td> <td>1085</td> <td>73</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table>	Q53I Other similar organisation				Frequency	%	0	1382	92.9	1	105	7.1	Total	1487	100	Q53J Not a member of any similar organisation				Frequency	%	0	402	27	1	1085	73	Total	1487	100
Q53I Other similar organisation																															
	Frequency	%																													
0	1382	92.9																													
1	105	7.1																													
Total	1487	100																													
Q53J Not a member of any similar organisation																															
	Frequency	%																													
0	402	27																													
1	1085	73																													
Total	1487	100																													
<p>54. Please will you tell me your contact telephone number and home address, including postcode?</p> <p>54a [RECORD TELEPHONE NUMBER] [IF RESPONDENT PROTESTS, READ THE FOLLOWING:] I need your telephone number in order for my supervisor to confirm that this interview was conducted properly and that I performed my job in a courteous and businesslike fashion. No one else will ever have access to your number.</p> <p>54b [RECORD HOME ADDRESS, INCLUDING POSTCODE] [IF RESPONDENT PROTESTS, READ THE FOLLOWING:] I need your home address, including your postcode, in order to ensure that the survey sample includes a representative mix of household locations. No one else will ever have access to your address.</p> <p>55. Would you be willing to be contacted in future regarding a possible follow-up survey? You would be under no obligation to participate if you decide you would prefer not to.</p> <ol style="list-style-type: none"> 1. Yes 2. No 	<table border="1"> <thead> <tr> <th colspan="3">Q55. Recontact</th> </tr> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>-2 Not stated</td> <td>3</td> <td>0.2</td> </tr> <tr> <td>1 Yes</td> <td>790</td> <td>53.1</td> </tr> <tr> <td>2 No</td> <td>694</td> <td>46.7</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table>	Q55. Recontact				Frequency	%	-2 Not stated	3	0.2	1 Yes	790	53.1	2 No	694	46.7	Total	1487	100												
Q55. Recontact																															
	Frequency	%																													
-2 Not stated	3	0.2																													
1 Yes	790	53.1																													
2 No	694	46.7																													
Total	1487	100																													
<p>Closing Thank You</p>																															
<p>INTERVIEWER: COMPLETE THESE QUESTIONS AS SOON AS POSSIBLE AFTER THE INTERVIEW.</p> <p>These two questions are only concerned with how the respondent answered section D1 / D2, which asked the respondent to make choices, and estimate their overall willingness to pay for WFD programmes.</p>																															

<p>56. Irrespective of whether or not the respondent answered all of the questions in this series, in your judgement, how did the respondent understand what he or she was being asked to do in the questions?</p> <p>1 Understood completely</p> <p>2 Understood a great deal</p> <p>3 Understood somewhat</p> <p>4 Understood a little</p> <p>5 Did not understand very much</p> <p>6 Did not understand at all</p> <p>7 Other (SPECIFY):</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p>Q56. Overall willingness to pay for WFD programmes</p> <table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>-2 Not stated</td> <td>3</td> <td>0.2</td> </tr> <tr> <td>1 Understood completely</td> <td>897</td> <td>60.3</td> </tr> <tr> <td>2 Understood a great deal</td> <td>376</td> <td>25.3</td> </tr> <tr> <td>3 Understood somewhat</td> <td>144</td> <td>9.7</td> </tr> <tr> <td>4 Understood a little</td> <td>42</td> <td>2.8</td> </tr> <tr> <td>5 Did not understand very much</td> <td>14</td> <td>0.9</td> </tr> <tr> <td>6 Did not understand at all</td> <td>9</td> <td>0.6</td> </tr> <tr> <td>7 Other:</td> <td>2</td> <td>0.1</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table> <p>Q56_7 Other (SPECIFY):</p> <table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>-1 not applicable</td> <td>1482</td> <td>99.7</td> </tr> <tr> <td>-2 not stated</td> <td>3</td> <td>0.2</td> </tr> <tr> <td>not stated</td> <td>2</td> <td>0.1</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table>		Frequency	%	-2 Not stated	3	0.2	1 Understood completely	897	60.3	2 Understood a great deal	376	25.3	3 Understood somewhat	144	9.7	4 Understood a little	42	2.8	5 Did not understand very much	14	0.9	6 Did not understand at all	9	0.6	7 Other:	2	0.1	Total	1487	100		Frequency	%	-1 not applicable	1482	99.7	-2 not stated	3	0.2	not stated	2	0.1	Total	1487	100			
	Frequency	%																																															
-2 Not stated	3	0.2																																															
1 Understood completely	897	60.3																																															
2 Understood a great deal	376	25.3																																															
3 Understood somewhat	144	9.7																																															
4 Understood a little	42	2.8																																															
5 Did not understand very much	14	0.9																																															
6 Did not understand at all	9	0.6																																															
7 Other:	2	0.1																																															
Total	1487	100																																															
	Frequency	%																																															
-1 not applicable	1482	99.7																																															
-2 not stated	3	0.2																																															
not stated	2	0.1																																															
Total	1487	100																																															
<p>57. Which of the following descriptions best describe the degree of effort the respondent made to arrive at a value for the WFD programmes?</p> <p>1 Gave the questions careful consideration</p> <p>2 Gave the questions some consideration</p> <p>3 Gave the questions very little consideration</p> <p>4 Other (SPECIFY):</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p>Q57. Degree of effort the respondent made to arrive at a value for the WFD programmes?</p> <table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>-2 Not stated</td> <td>3</td> <td>0.2</td> </tr> <tr> <td>1 Gave the questions careful consideration</td> <td>1094</td> <td>73.6</td> </tr> <tr> <td>2 Gave the questions some consideration</td> <td>350</td> <td>23.5</td> </tr> <tr> <td>3 Gave the questions very little consideration</td> <td>34</td> <td>2.3</td> </tr> <tr> <td>4 Other:</td> <td>6</td> <td>0.4</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table> <p>Q57_4 Other (SPECIFY):</p> <table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>-1 not applicable</td> <td>1478</td> <td>99.4</td> </tr> <tr> <td>-2 not stated</td> <td>3</td> <td>0.2</td> </tr> <tr> <td>didn't give the pie charts alot of consideration. wasn't willing to pay any extra money ontop of her existing bills.</td> <td>1</td> <td>0.1</td> </tr> <tr> <td>he said he would have required alot longer time to give it proper consideration - he felt his answers were not as accurate as he would have liked</td> <td>1</td> <td>0.1</td> </tr> <tr> <td>not stated</td> <td>2</td> <td>0.1</td> </tr> <tr> <td>was difficult to understand most of it</td> <td>1</td> <td>0.1</td> </tr> <tr> <td>was very difficult saying the options did not reflect his opinions so refused to comment on the grids</td> <td>1</td> <td>0.1</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table>		Frequency	%	-2 Not stated	3	0.2	1 Gave the questions careful consideration	1094	73.6	2 Gave the questions some consideration	350	23.5	3 Gave the questions very little consideration	34	2.3	4 Other:	6	0.4	Total	1487	100		Frequency	%	-1 not applicable	1478	99.4	-2 not stated	3	0.2	didn't give the pie charts alot of consideration. wasn't willing to pay any extra money ontop of her existing bills.	1	0.1	he said he would have required alot longer time to give it proper consideration - he felt his answers were not as accurate as he would have liked	1	0.1	not stated	2	0.1	was difficult to understand most of it	1	0.1	was very difficult saying the options did not reflect his opinions so refused to comment on the grids	1	0.1	Total	1487	100
	Frequency	%																																															
-2 Not stated	3	0.2																																															
1 Gave the questions careful consideration	1094	73.6																																															
2 Gave the questions some consideration	350	23.5																																															
3 Gave the questions very little consideration	34	2.3																																															
4 Other:	6	0.4																																															
Total	1487	100																																															
	Frequency	%																																															
-1 not applicable	1478	99.4																																															
-2 not stated	3	0.2																																															
didn't give the pie charts alot of consideration. wasn't willing to pay any extra money ontop of her existing bills.	1	0.1																																															
he said he would have required alot longer time to give it proper consideration - he felt his answers were not as accurate as he would have liked	1	0.1																																															
not stated	2	0.1																																															
was difficult to understand most of it	1	0.1																																															
was very difficult saying the options did not reflect his opinions so refused to comment on the grids	1	0.1																																															
Total	1487	100																																															

<p>58. Which of the following best describes the degree of fatigue shown by the respondent?</p> <p>1 Maintained concentration throughout the survey</p> <p>2 Lessened concentration in the later stages</p> <p>3 Other (SPECIFY):</p> <hr/> <hr/> <hr/>	<p>Q58. Which of the following best describes the degree of fatigue shown by the respondent?</p>																																																									
	<table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>-2 Not stated</td> <td>3</td> <td>0.2</td> </tr> <tr> <td>1 Maintained concentration throughout the survey</td> <td>1287</td> <td>86.6</td> </tr> <tr> <td>2 Lessened concentration in the later stages</td> <td>187</td> <td>12.6</td> </tr> <tr> <td>3 Other</td> <td>10</td> <td>0.7</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table>		Frequency	%	-2 Not stated	3	0.2	1 Maintained concentration throughout the survey	1287	86.6	2 Lessened concentration in the later stages	187	12.6	3 Other	10	0.7	Total	1487	100	<table border="1"> <thead> <tr> <th></th> <th>Frequency</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>-1 not applicable</td> <td>1474</td> <td>99.1</td> </tr> <tr> <td>-2 not stated</td> <td>3</td> <td>0.2</td> </tr> <tr> <td>concentration less at beginning</td> <td>1</td> <td>0.1</td> </tr> <tr> <td>gave lots of opinions not related to this survey but seems to have enjoyed doing it</td> <td>1</td> <td>0.1</td> </tr> <tr> <td>he said he would have preferred more time to analyse figures</td> <td>1</td> <td>0.1</td> </tr> <tr> <td>mind was set that she would not pay any more whatever the cost</td> <td>1</td> <td>0.1</td> </tr> <tr> <td>not stated</td> <td>2</td> <td>0.1</td> </tr> <tr> <td>pie charts seemed to muddle her a bit too much information</td> <td>1</td> <td>0.1</td> </tr> <tr> <td>she struggled somewhat with some questions</td> <td>1</td> <td>0.1</td> </tr> <tr> <td>was getting fed up with basically answering the same questions but slightly different</td> <td>1</td> <td>0.1</td> </tr> <tr> <td>was very argumentative and denegated the whole survey repeatedly, a most difficult interview to conduct. does not want to be contacted again.</td> <td>1</td> <td>0.1</td> </tr> <tr> <td>Total</td> <td>1487</td> <td>100</td> </tr> </tbody> </table>		Frequency	%	-1 not applicable	1474	99.1	-2 not stated	3	0.2	concentration less at beginning	1	0.1	gave lots of opinions not related to this survey but seems to have enjoyed doing it	1	0.1	he said he would have preferred more time to analyse figures	1	0.1	mind was set that she would not pay any more whatever the cost	1	0.1	not stated	2	0.1	pie charts seemed to muddle her a bit too much information	1	0.1	she struggled somewhat with some questions	1	0.1	was getting fed up with basically answering the same questions but slightly different	1	0.1	was very argumentative and denegated the whole survey repeatedly, a most difficult interview to conduct. does not want to be contacted again.	1	0.1	Total	1487
	Frequency	%																																																								
-2 Not stated	3	0.2																																																								
1 Maintained concentration throughout the survey	1287	86.6																																																								
2 Lessened concentration in the later stages	187	12.6																																																								
3 Other	10	0.7																																																								
Total	1487	100																																																								
	Frequency	%																																																								
-1 not applicable	1474	99.1																																																								
-2 not stated	3	0.2																																																								
concentration less at beginning	1	0.1																																																								
gave lots of opinions not related to this survey but seems to have enjoyed doing it	1	0.1																																																								
he said he would have preferred more time to analyse figures	1	0.1																																																								
mind was set that she would not pay any more whatever the cost	1	0.1																																																								
not stated	2	0.1																																																								
pie charts seemed to muddle her a bit too much information	1	0.1																																																								
she struggled somewhat with some questions	1	0.1																																																								
was getting fed up with basically answering the same questions but slightly different	1	0.1																																																								
was very argumentative and denegated the whole survey repeatedly, a most difficult interview to conduct. does not want to be contacted again.	1	0.1																																																								
Total	1487	100																																																								
<p>Q58_3 Other (SPECIFY):</p>																																																										

INTERVIEW VALIDATION:

INTERVIEWER: IF RESPONDENT REFUSES TO GIVE YOU HIS/HER TELEPHONE NUMBER, SAY:

"I need your telephone number in order for my supervisor to confirm that this interview was conducted properly and that I performed my job in a courteous and businesslike fashion. No one else will ever have access to your number."

- INDICATE: 1. TELEPHONE NUMBER OBTAINED
 2. REFUSED

I hereby certify that this is an honest interview taken in accordance with my instructions.	
Interviewer's Signature	Date

<u>FOR OFFICE USE ONLY</u>				
<u>DATE</u>	<u>TIME</u>	<u>RESULT</u>	<u>COMMENTS</u>	<u>VERIFIED BY</u>

Appendix D. Show Cards 1 - CE, Then CV Order

Location:	Brent
Identification Number:	M-1729-CE

CARD 1A

	Too Much	About the Right Amount	Too Little
Pensions			
Social Security			
Education			
Reducing water pollution			
Transport			
Police and criminal justice			
Reducing air pollution			
Healthcare			

CARD 1B

	First Priority	Second Priority
Reducing the risks of drinking water discolouration		
Reducing the risks of sewer flooding		
Fixing leaks in pipes		
Improving river water quality		
Reducing the risks of interruptions to supply		
Improving bathing water quality		
Protecting animal and plant life around waterways		

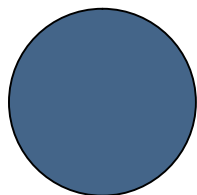
CARD 2

A	Protecting the environment is so important that pollution control requirements and standards cannot be too strict, and continuing improvement must be made regardless of cost
B	Protecting the environment is important and continuing improvements should be funded, provided that they are not excessively costly
C	We are spending about the right amount on cleaning up the environment and don't need to increase or decrease this spending
D	We have made enough progress on cleaning up the environment and we should now concentrate on holding down costs rather than requiring stricter pollution controls
E	Pollution control requirements and standards have gone too far and they already cost more than they are worth

CARD 3

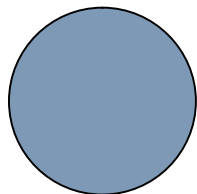
Activity	Often (More than 6 times in the last 12 months)	Sometimes (Between 3 and 6 times in the last 12 months)	Rarely (Once or twice in the last 12 months)	Never (Zero times in the past 12 months)
Water contact activities. For example, canoeing, rowing, rafting, surfing, windsurfing, diving, wading, paddling, or swimming in the sea or rivers or lakes, (not in swimming pools).	Often	Sometimes	Rarely	None
Fishing	Often	Sometimes	Rarely	None
Other activities on or around the water. For example, narrowboating, other boating, walking, running, cycling, or sitting nearby.	Often	Sometimes	Rarely	None

CARD 4 – Quality Levels



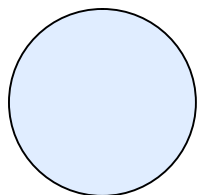
Dark Blue – quality is “High”.

- There will be a diverse and natural range of plants, insects, fish, birds and other animals.
- Water will generally have the right degree of clarity and there will be no noticeable pollution.
- Water will generally be suitable for contact activities, such as rowing or wind surfing.



Mid-Blue – quality is “Medium”.

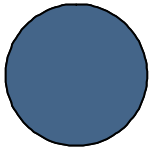

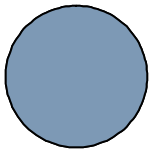

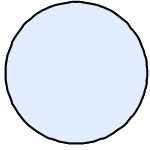
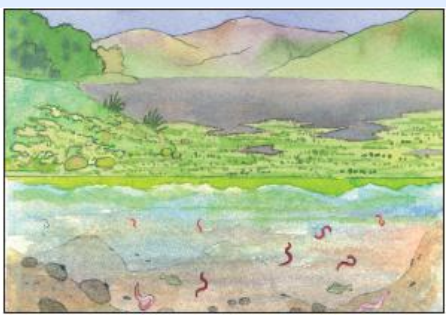
- There will be plants, insects, fish, birds and other animals, but there will be some fish and other wildlife missing.
- Water will be slightly murky or discoloured in parts, and there will sometimes be visible pollution in some places, and some algal blooms.
- Water will be suitable for contact activities in some areas but not others.



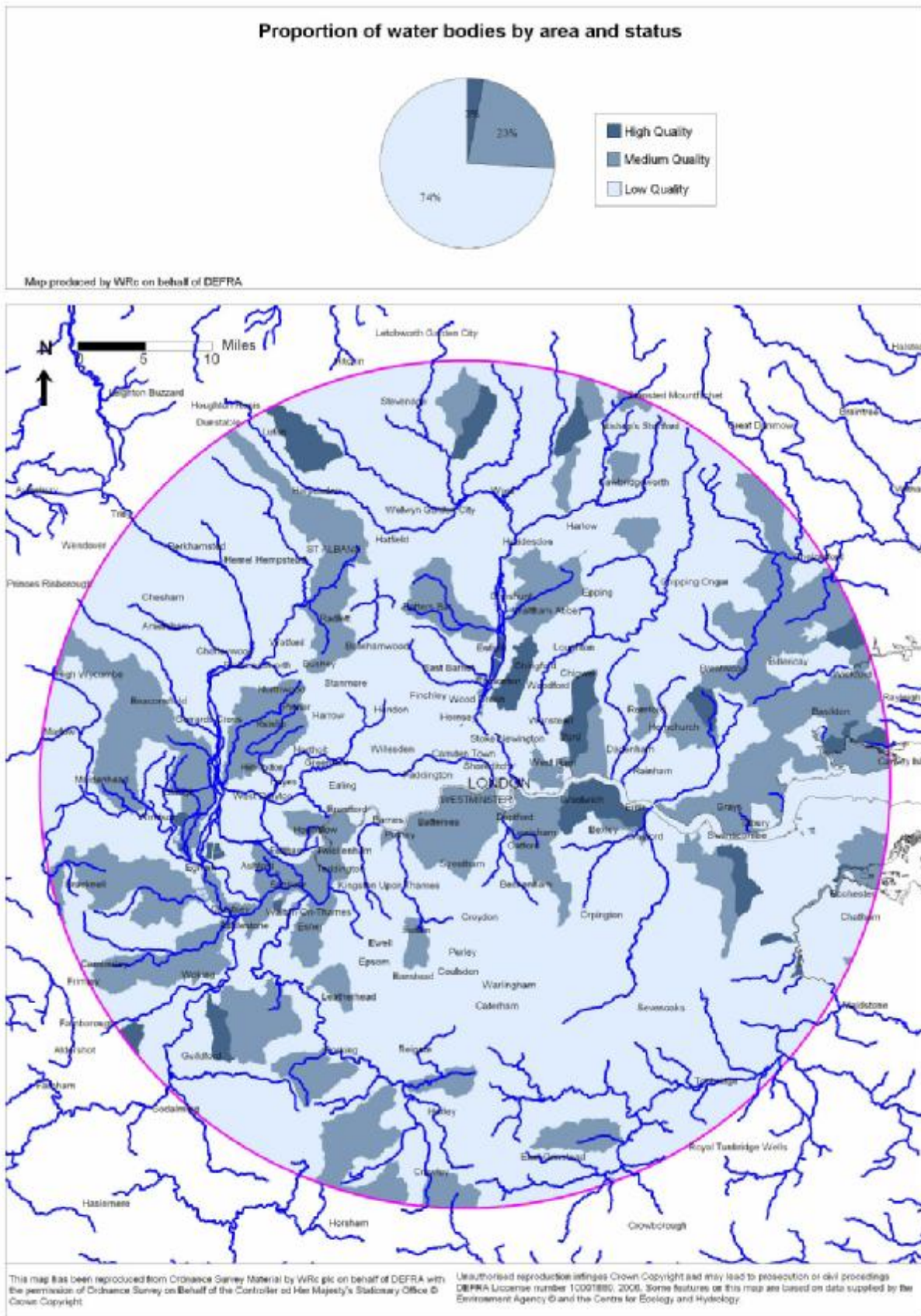
Light Blue – quality is “Low”.

- There may be limited or no plants or wildlife, or the water may be dominated by a single plant species.
- Water will generally be murky or discoloured, and may sometimes be bad-smelling in some places. There may also regularly be visible pollution in some places, and frequent algal blooms.
- Water will be unsuitable for contact activities.

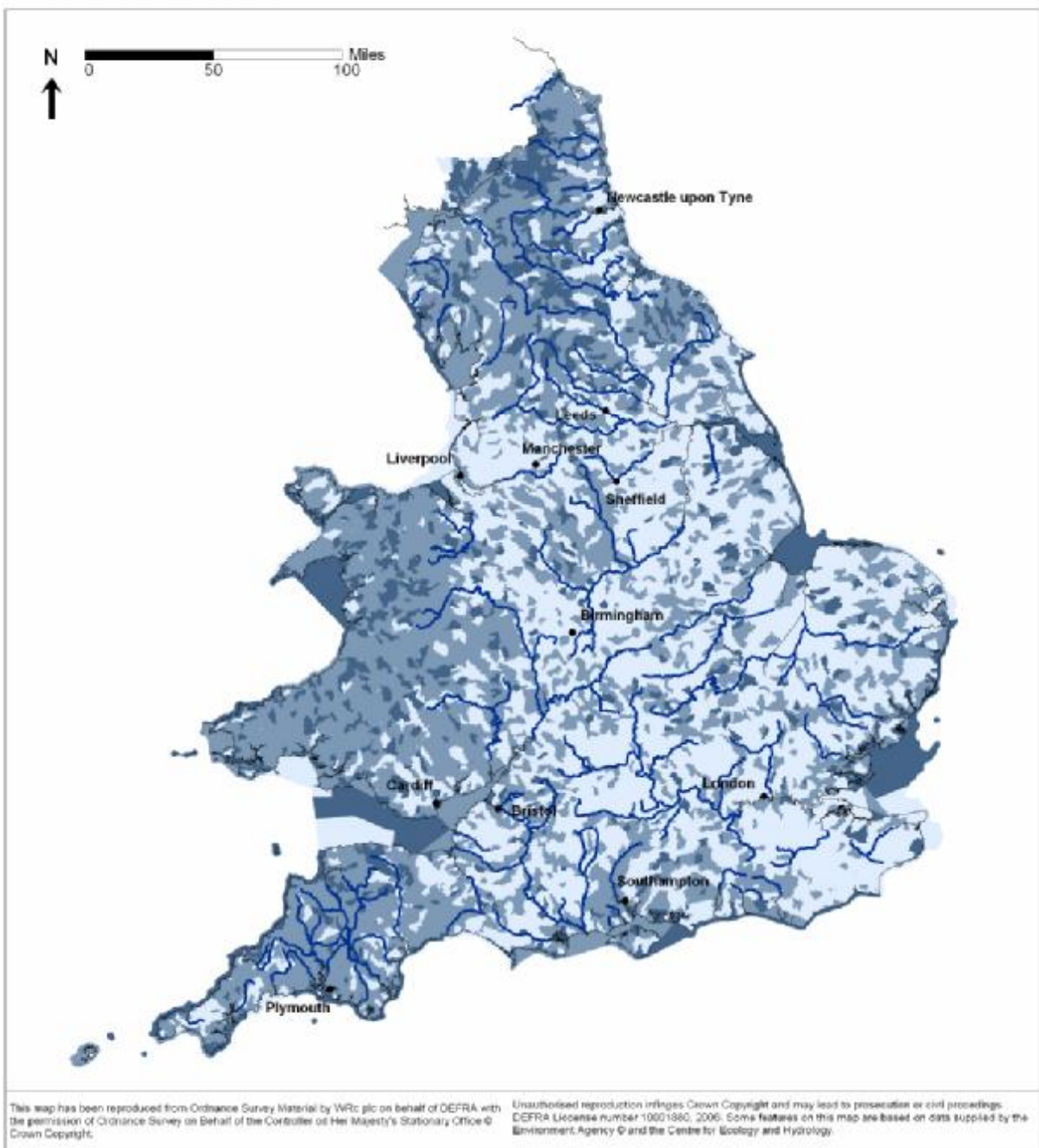
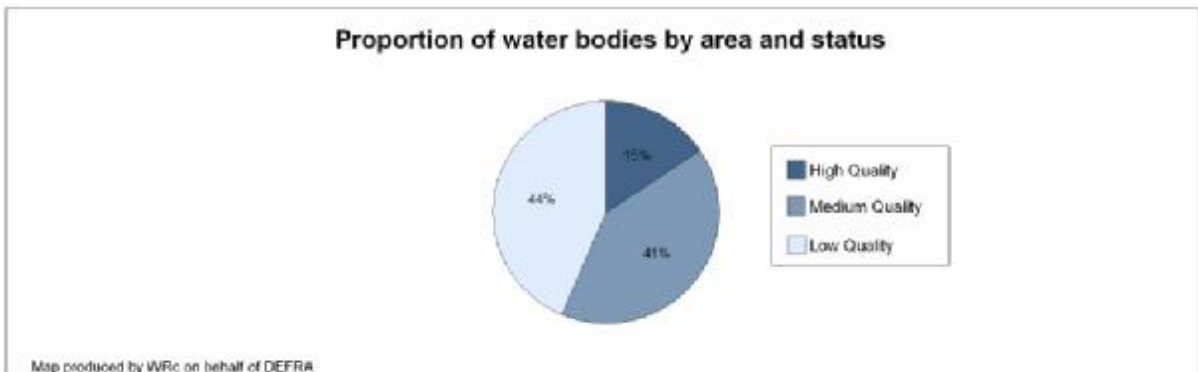
CARD 4 – Lake

 <p>High Quality</p>		<p>A diversity of underwater plants, floating lilies, and tall flowering plants. Varied fish population, including trout and coarse fish. Insects such as dragonflies are present. Water with right degree of clarity and no noticeable pollution. Natural and seasonal variations in water levels. Suitable for contact activities.</p>
 <p>Medium Quality</p>		<p>Some underwater and floating plants in shallow areas and around the lake. Some coarse fish and other animals present but limited. Insects are rare. Slightly unclear and occasionally discoloured water. Suitable for contact activities in some areas but not others.</p>
 <p>Low Quality</p>		<p>Very few plants, except blanket weed, and very few fish or other animals, except worms and leeches. Cloudy, discoloured and possibly bad-smelling water. Unsuitable for contact activities.</p>

Local Map



NATIONAL MAP







CARD 5

A	A great deal better than expected
B	Somewhat better than expected
C	About as expected
D	Somewhat worse than expected
E	A great deal worse than expected

CARD 6 – Water Environment Benefits

The potential benefits of the new law include the following:

Moving from “Low Quality”, , to “Medium Quality”, , will make conditions better for plants, and animals in and around the water, decrease visible pollution, and allow for boating, angling and other activities around the water.

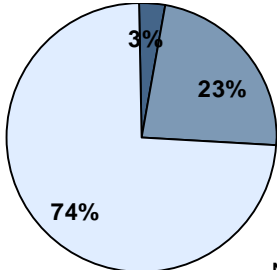
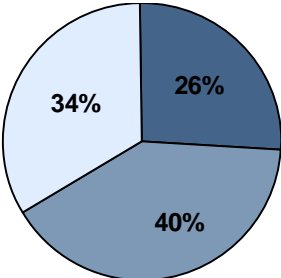
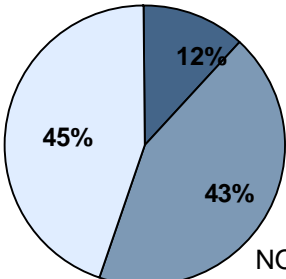
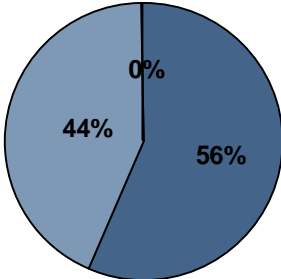

Moving from “Medium Quality”, , to “High Quality”, , will end visible signs of pollution, improve conditions for all water-based activities, and provide good conditions for a diversity of plants, animals, fish and birds.

Please note that the new law will not affect your drinking water quality, it will not directly create more access for recreational water users; and it will not be responsible for cleaning up general rubbish like plastic bags and bottles.

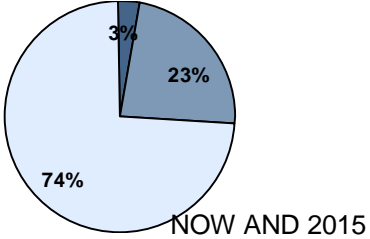
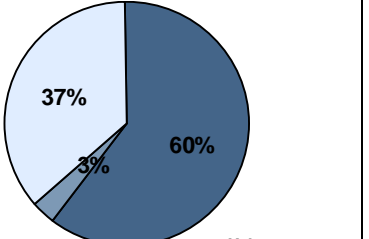
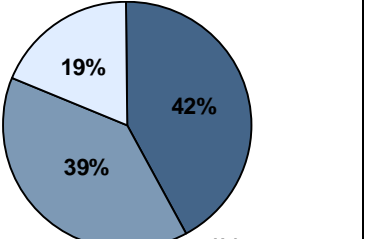
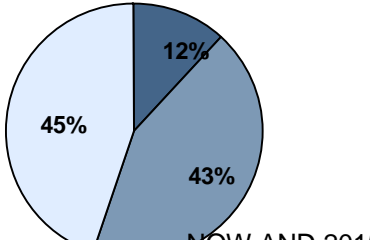
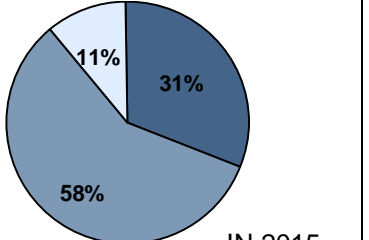
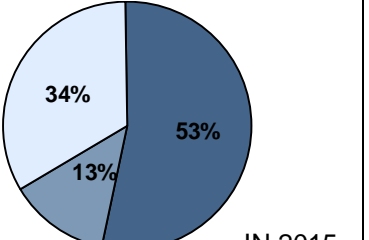


CARD 7

A	Improved conditions for fishing
B	Improved conditions for water contact activities. For example, canoeing, rowing, rafting, surfing, windsurfing, diving, wading, paddling, or swimming in the sea or rivers or lakes, (not in swimming pools)
C	Improved conditions for other activities on, or around the water, (eg narrowboating, other boating, walking, running, cycling, or sitting nearby).
D	Knowledge of improved habitats for plants, fish and other animals
E	Other [PLEASE SPECIFY]

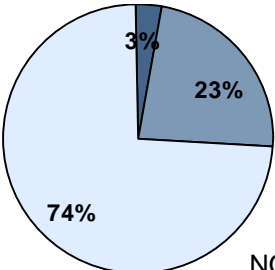
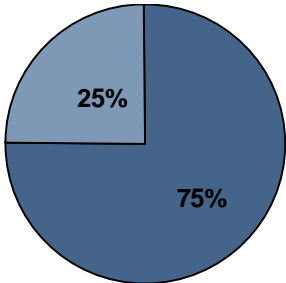
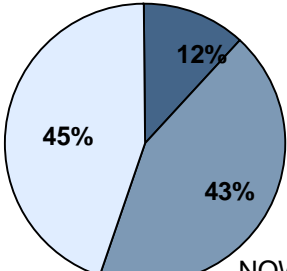
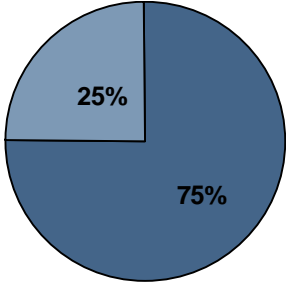

EXAMPLE CHOICE CARD

	High Quality	Medium Quality	Low Quality
	Option A - No Change		Option B
Status of Local Area in <u>8 years time</u>	 <p>NOW AND 2015</p>		 <p>IN 2015</p>
Status of England and Wales in <u>8 years time</u>	 <p>NOW AND 2015</p>		 <p>IN 2015</p>
Status of England and Wales and Local Area in <u>20 years time</u>	Same as now		75% 
Increase in your water bill and other household payments. Note: this payment will be added to the cost of avoiding any worsening of the water environment.	None		£ Y per year
	Choose Option A - No Change		Choose Option B
Remembering all the things you could do with your money, which Option would you choose, A or B?			

EXAMPLE CHOICE CARDS

	High Quality	Medium Quality	Low Quality
	Option A - No Change	Option B	Option C
Status of <u>Local Area</u> in <u>8 years time</u>	 <p>NOW AND 2015</p>	 <p>IN 2015</p>	 <p>IN 2015</p>
Status of <u>England and Wales</u> in <u>8 years time</u>	 <p>NOW AND 2015</p>	 <p>IN 2015</p>	 <p>IN 2015</p>
Status of England and Wales and <u>Local Area</u> in <u>20 years time</u>	Same as now	75% 	75% 
Increase in your water bill and other household payments. <u>Note:</u> this payment will be added to the cost of avoiding any worsening of the water environment.	None	£ 10 per year	£ 10 per year
	Choose Option A - No Change	Choose Option B	Choose Option C
Remembering all the things you could do with your money, which Option would you choose, A, B or C?			

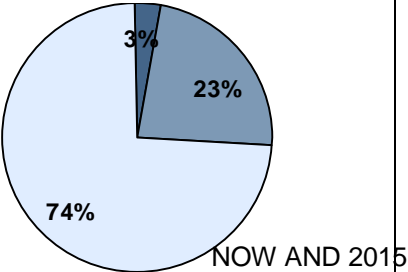
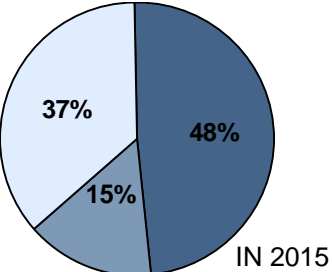
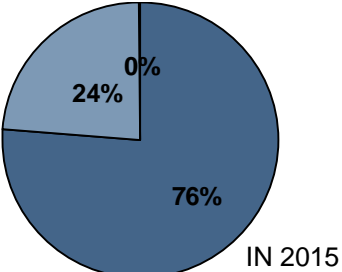
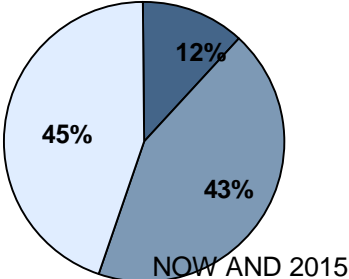
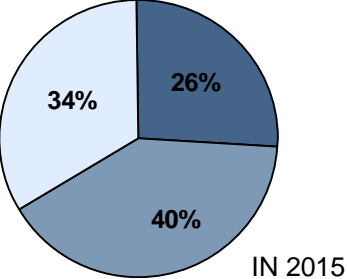
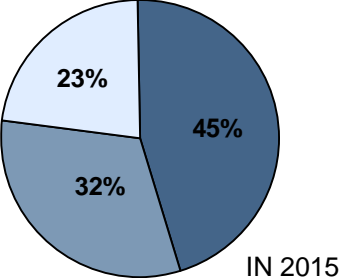


This card has only two options, please choose one of these.

	High Quality	Medium Quality	Low Quality
Choice Card 1	Option A - No Change		Option B
Status of <u>Local Area</u> in <u>8 years time</u>	 <p>NOW AND 2015</p>		 <p>IN 2015</p>
Status of <u>England and Wales</u> in <u>8 years time</u>	 <p>NOW AND 2015</p>		 <p>IN 2015</p>
Status of <u>England and Wales and Local Area</u> in <u>20 years time</u> IN 2027	Same as Now		95% 
Increase in your water bill and other household payments. <u>Note:</u> this payment will be added to the cost of avoiding any worsening of the water environment.	No increase in water bills or other household payments		£ 30 per year
Remembering all the things that you could do with your money, which option would you choose, A or B			

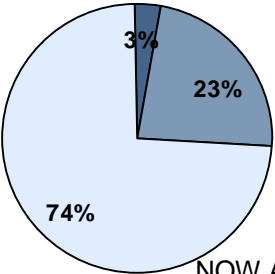
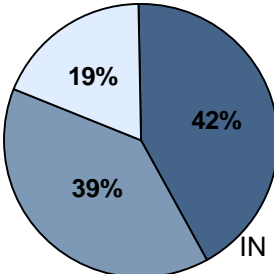
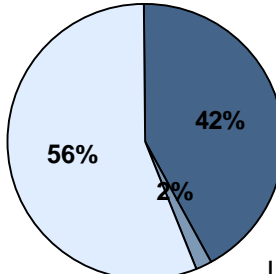
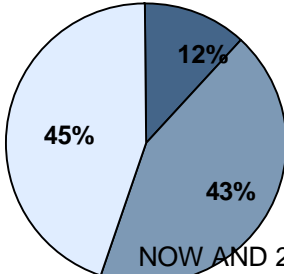
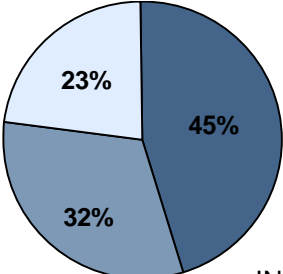
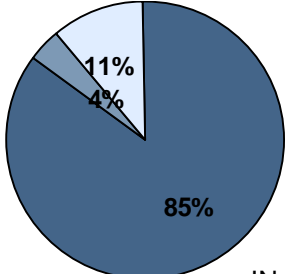


High Quality	Medium Quality	Low Quality

Choice Card 2	Option A - No Change	Option B	Option C
Status of <u>Local Area</u> in <u>8 years time</u>	<p>NOW AND 2015</p>	<p>IN 2015</p>	<p>IN 2015</p>
Status of <u>England and Wales</u> in <u>8 years time</u>	<p>NOW AND 2015</p>	<p>IN 2015</p>	<p>IN 2015</p>
Status of England and Wales and Local Area in <u>20 years time</u>	Same as now	95%	95%
Increase in your water bill and other household payments. <i>Note:</i> this payment will be added to the cost of avoiding any worsening of the water environment.	None	£ 20 per year	£ 30 per year
	Choose Option A - No Change	Choose Option B	Choose Option C
Remembering all the things you could do with your money, which Option would you choose, A, B or C?			

	High Quality	Medium Quality	Low Quality
Choice Card 3	Option A - No Change	Option B	Option C
Status of <u>Local Area</u> in <u>8 years time</u>	<p>NOW AND 2015</p>	<p>IN 2015</p>	<p>IN 2015</p>
Status of <u>England and Wales</u> in <u>8 years time</u>	<p>NOW AND 2015</p>	<p>IN 2015</p>	<p>IN 2015</p>
Status of England and Wales and Local Area in <u>20 years time</u>	Same as now	95%	95%
Increase in your water bill and other household payments. <u>Note:</u> this payment will be added to the cost of avoiding any worsening of the water environment.	None	£ 20 per year	£ 20 per year
	Choose Option A - No Change	Choose Option B	Choose Option C
Remembering all the things you could do with your money, which Option would you choose, A, B or C?			

	High Quality	Medium Quality	Low Quality
Choice Card 4	Option A - No Change	Option B	Option C
Status of <u>Local Area</u> in <u>8 years time</u>	 <p>NOW AND 2015</p>	 <p>IN 2015</p>	 <p>IN 2015</p>
Status of <u>England and Wales</u> in <u>8 years time</u>	 <p>NOW AND 2015</p>	 <p>IN 2015</p>	 <p>IN 2015</p>
Status of England and Wales and <u>Local Area</u> in <u>20 years time</u>	Same as now	75% 	95% 
Increase in your water bill and other household payments. <u>Note:</u> this payment will be added to the cost of avoiding any worsening of the water environment.	None	£ 30 per year	£ 200 per year
	Choose Option A - No Change	Choose Option B	Choose Option C
Remembering all the things you could do with your money, which Option would you choose, A, B or C?			

	High Quality	Medium Quality	Low Quality
Choice Card 5			
	Option A - No Change	Option B	Option C
Status of <u>Local Area</u> in <u>8 years time</u>	<p>74% 23% 3% NOW AND 2015</p>	<p>48% 37% 15% IN 2015</p>	<p>48% 37% 15% IN 2015</p>
Status of <u>England and Wales</u> in <u>8 years time</u>	<p>45% 43% 12% NOW AND 2015</p>	<p>61% 23% 16% IN 2015</p>	<p>49% 28% 23% IN 2015</p>
Status of <u>England and Wales and Local Area</u> in <u>20 years time</u>	Same as now	75%	95%
Increase in your water bill and other household payments. <u>Note:</u> this payment will be added to the cost of avoiding any worsening of the water environment.	None	£ 30 per year	£ 100 per year
	Choose Option A - No Change	Choose Option B	Choose Option C
Remembering all the things you could do with your money, which Option would you choose, A, B or C?			

	High Quality	Medium Quality	Low Quality
Choice Card 6	Option A - No Change	Option B	Option C
Status of <u>Local Area</u> in <u>8 years time</u>	 <p>NOW AND 2015</p>	 <p>IN 2015</p>	 <p>IN 2015</p>
Status of <u>England and Wales</u> in <u>8 years time</u>	 <p>NOW AND 2015</p>	 <p>IN 2015</p>	 <p>IN 2015</p>
Status of <u>England and Wales and Local Area</u> in <u>20 years time</u>	Same as now	75% 	95% 
Increase in your water bill and other household payments. <u>Note:</u> this payment will be added to the cost of avoiding any worsening of the water environment.	None	£ 200 per year	£ 20 per year
	Choose Option A - No Change	Choose Option B	Choose Option C
Remembering all the things you could do with your money, which Option would you choose, A, B or C?			

High Quality	Medium Quality	Low Quality

Choice Card 7	Option A - No Change	Option B	Option C
Status of <u>Local Area</u> in <u>8 years time</u>	<p>NOW AND 2015</p>	<p>IN 2015</p>	<p>IN 2015</p>
Status of <u>England and Wales</u> in <u>8 years time</u>	<p>NOW AND 2015</p>	<p>IN 2015</p>	<p>IN 2015</p>
Status of <u>England and Wales and Local Area</u> in <u>20 years time</u>	Same as now	95%	95%
Increase in your water bill and other household payments. <u>Note:</u> this payment will be added to the cost of avoiding any worsening of the water environment.	None	£ 5 per year	£ 30 per year
	Choose Option A - No Change	Choose Option B	Choose Option C
Remembering all the things you could do with your money, which Option would you choose, A, B or C?			

	High Quality	Medium Quality	Low Quality
Choice Card 8	Option A - No Change	Option B	Option C
Status of <u>Local Area</u> in <u>8 years time</u>	<p>74% 23% 3% NOW AND 2015</p>	<p>19% 23% 58% 2015</p>	<p>0% 27% 73% IN 2015</p>
Status of <u>England and Wales</u> in <u>8 years time</u>	<p>45% 12% 43% NOW AND 2015</p>	<p>34% 26% 40% 2015</p>	<p>0% 56% 44% 2015</p>
Status of <u>England and Wales and Local Area</u> in <u>20 years time</u>	Same as now	75%	95%
Increase in your water bill and other household payments. <u>Note:</u> this payment will be added to the cost of avoiding any worsening of the water environment.	None	£ 10 per year	£ 30 per year
	Choose Option A - No Change	Choose Option B	Choose Option C
Remembering all the things you could do with your money, which Option would you choose, A, B or C?			

	High Quality	Medium Quality	Low Quality
WILLINGNESS TO PAY CARD			
	Option A - No Change		Option B
Status of <u>Local Area</u> in <u>8 years time</u>	<p>NOW AND 2015</p>		<p>IN 2015</p>
Status of <u>England and Wales</u> in <u>8 years time</u>	<p>NOW AND 2015</p>		<p>IN 2015</p>
Status of <u>England and Wales and Local Area</u> in <u>20 years time</u> IN 2027	Same as Now		95%
Increase in your water bill and other household payments. <u>Note:</u> this payment will be added to the cost of avoiding any worsening of the water environment.	No increase in water bills or other household payments		£ ----- per year (continuing indefinitely)

PAYMENT CARD

£0	£20	£60	£200
2	25	80	250
5	30	100	300
8	35	120	350
10	40	140	400
12	45	160	500
15	50	180	1000

CARD 8

First improve the worst areas, as judged by scientists, regardless of where they are located,

First improve areas near to where many people live or visit, or

First improve areas where quick improvements can be achieved at relatively low cost.

Appendix E. Show Cards 2 - CV, Then CE Order

Location:	Brent
Identification Number:	M-0829-CV

CARD 1A

	Too Much	About the Right Amount	Too Little
Pensions			
Social Security			
Education			
Reducing water pollution			
Transport			
Police and criminal justice			
Reducing air pollution			
Healthcare			

CARD 1B

	First Priority	Second Priority
Reducing the risks of drinking water discolouration		
Reducing the risks of sewer flooding		
Fixing leaks in pipes		
Improving river water quality		
Reducing the risks of interruptions to supply		
Improving bathing water quality		
Protecting animal and plant life around waterways		

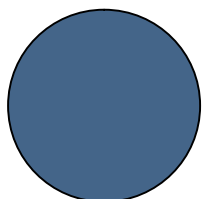
CARD 2

A	Protecting the environment is so important that pollution control requirements and standards cannot be too strict, and continuing improvement must be made regardless of cost
B	Protecting the environment is important and continuing improvements should be funded, provided that they are not excessively costly
C	We are spending about the right amount on cleaning up the environment and don't need to increase or decrease this spending
D	We have made enough progress on cleaning up the environment and we should now concentrate on holding down costs rather than requiring stricter pollution controls
E	Pollution control requirements and standards have gone too far and they already cost more than they are worth

CARD 3

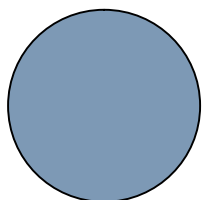
Activity	Often (More than 6 times in the last 12 months)	Sometimes (Between 3 and 6 times in the last 12 months)	Rarely (Once or twice in the last 12 months)	Never (Zero times in the past 12 months)
Water contact activities. For example, canoeing, rowing, rafting, surfing, windsurfing, diving, wading, paddling, or swimming in the sea or rivers or lakes, (not in swimming pools).	Often	Sometimes	Rarely	None
Fishing	Often	Sometimes	Rarely	None
Other activities on or around the water. For example, narrowboating, other boating, walking, running, cycling, or sitting nearby.	Often	Sometimes	Rarely	None

CARD 4 – Quality Levels



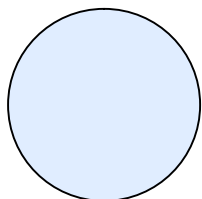
Dark Blue – quality is “High”.

- There will be a diverse and natural range of plants, insects, fish, birds and other animals.
- Water will generally have the right degree of clarity and there will be no noticeable pollution.
- Water will generally be suitable for contact activities, such as rowing or wind surfing.



Mid-Blue – quality is “Medium”.

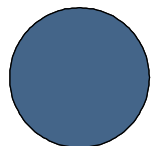
- There will be plants, insects, fish, birds and other animals, but there will be some fish and other wildlife missing.
- Water will be slightly murky or discoloured in parts, and there will sometimes be visible pollution in some places, and some algal blooms.
- Water will be suitable for contact activities in some areas but not others.



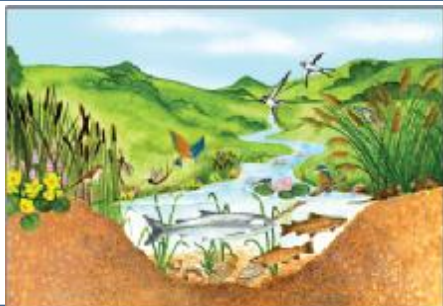
Light Blue – quality is “Low”.

- There may be limited or no plants or wildlife, or the water may be dominated by a single plant species.
- Water will generally be murky or discoloured, and may sometimes be bad-smelling in some places. There may also regularly be visible pollution in some places, and frequent algal blooms.
- Water will be unsuitable for contact activities.

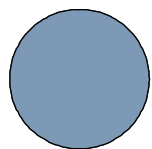
CARD 4a – Rural River



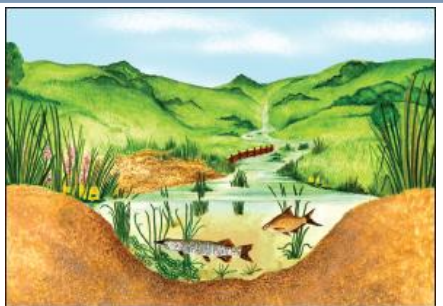
High
Quality



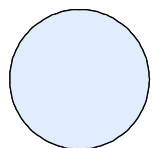
Varied fish population, possibly including trout and salmon as well as coarse fish. Supports diverse and native plants and animals. Water with right degree of clarity most of the time and no noticeable pollution. Natural and seasonal variations in water levels and flow. Generally suitable for contact activities.



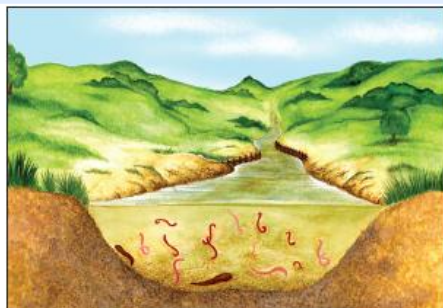
Medium
Quality



Coarse fish such as bream and roach present, possibly trout but no salmon. Supports some plants and animals. Slightly less than the right degree of clarity, becoming murkier after rain. In some cases river bed, banks, water levels and/or flow may be affected by human pressures. Suitable for contact activities in some areas but not others.

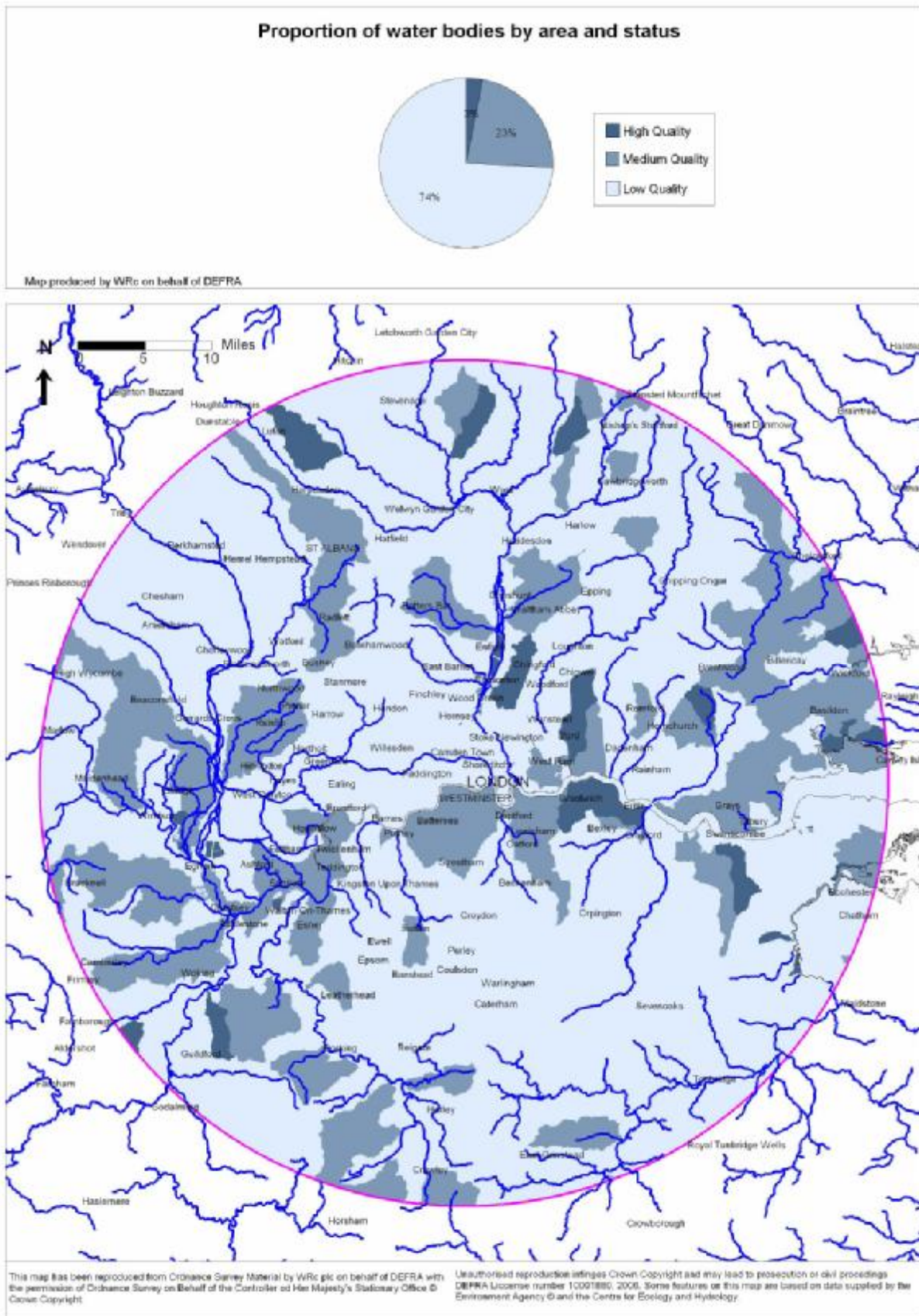


Low
Quality

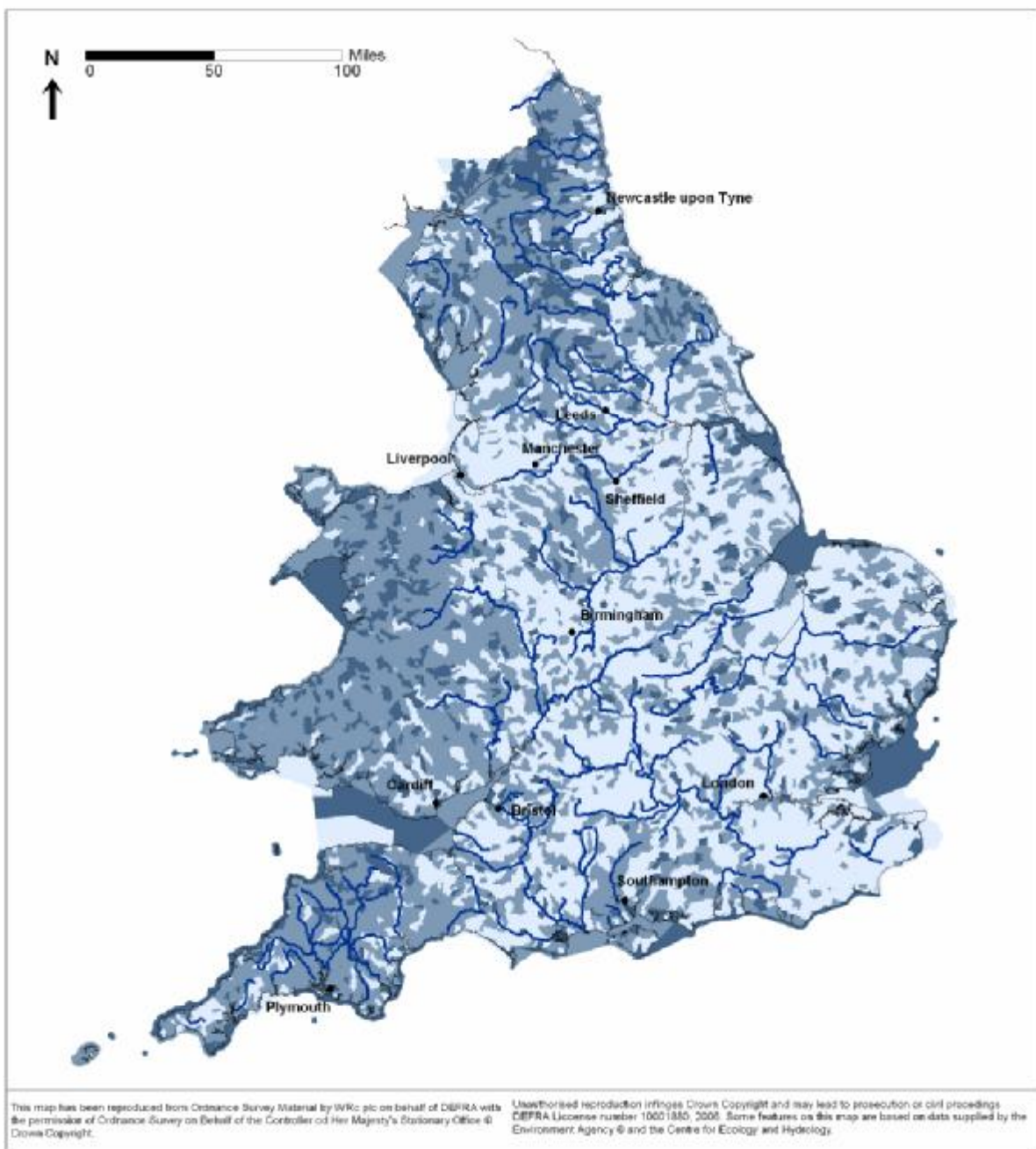
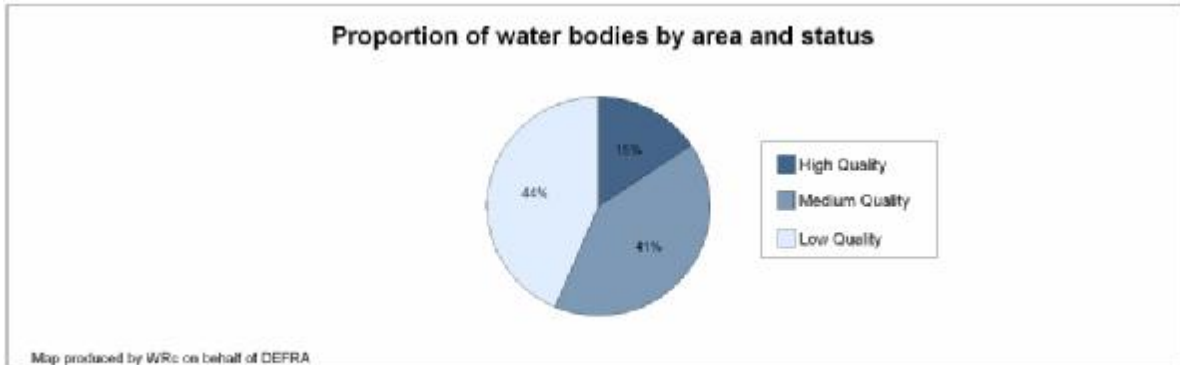


Very few plants, fish or other animals. Cloudy, discoloured and possibly bad-smelling water. River bed, banks, water levels and flow will be noticeably affected by human pressures. Unsuitable for contact activities

Local Map



NATIONAL MAP







CARD 5

A	A great deal better than expected
B	Somewhat better than expected
C	About as expected
D	Somewhat worse than expected
E	A great deal worse than expected

CARD 6 – Water Environment Benefits

The potential benefits of the new law include the following:

Moving from “Low Quality”, , to “Medium Quality”, , will make conditions better for plants, and animals in and around the water, decrease visible pollution, and allow for boating, angling and other activities around the water.

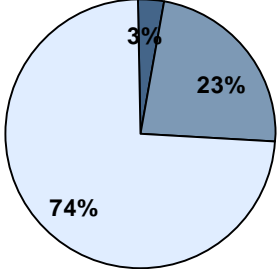
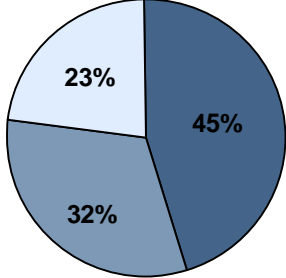
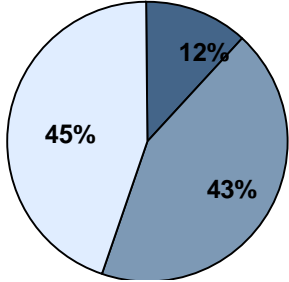
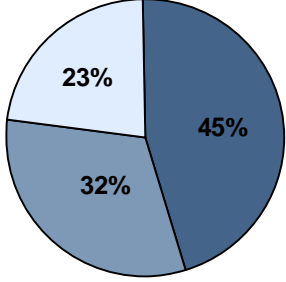
Moving from “Medium Quality”, , to “High Quality”, , will end visible signs of pollution, improve conditions for all water-based activities, and provide good conditions for a diversity of plants, animals, fish and birds.

Please note that the new law will not affect your drinking water quality, it will not directly create more access for recreational water users; and it will not be responsible for cleaning up general rubbish like plastic bags and bottles.

CARD 7

A	Improved conditions for fishing
B	Improved conditions for water contact activities. For example, canoeing, rowing, rafting, surfing, windsurfing, diving, wading, paddling, or swimming in the sea or rivers or lakes, (not in swimming pools)
C	Improved conditions for other activities on, or around the water, (eg narrowboating, other boating, walking, running, cycling, or sitting nearby).
D	Knowledge of improved habitats for plants, fish and other animals
E	Other [PLEASE SPECIFY]

High Quality	Medium Quality	Low Quality

EXAMPLE CHOICE CARD	Option A - No Change	Option B
Status of <u>Local Area</u> in <u>8 years time</u>		
<p style="text-align: center;">NOW AND 2015</p> Status of <u>England and Wales</u> in <u>8 years time</u>		
Status of England and Wales and Local Area in <u>20 years time</u>	NOW AND 2015 Same as now	IN 2015 75%
Increase in your water bill and other household payments. <u>Note:</u> this payment will be added to the cost of avoiding any worsening of the water environment.	None	£ Y per year
	Choose Option A - No Change	Choose Option B
Remembering all the things you could do with your money, which Option would you choose, A or B?		

High Quality	Medium Quality	Low Quality

WILLINGNESS TO PAY CARD	Option A - No Change	Option B
Status of <u>Local Area</u> in <u>8 years time</u>		
Status of <u>England and Wales</u> in <u>8 years time</u>		
Status of <u>England and Wales and Local Area</u> in <u>20 years time</u> IN 2027	NOW AND 2015 Same as Now	IN 2015 95%
Increase in your water bill and other household payments. Note: this payment will be added to the cost of avoiding any worsening of the water environment.	No increase in water bills or other household payments	£ ----- per year (continuing indefinitely)

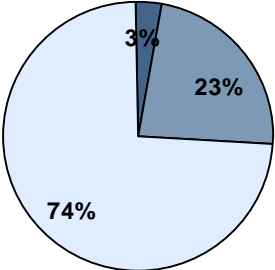
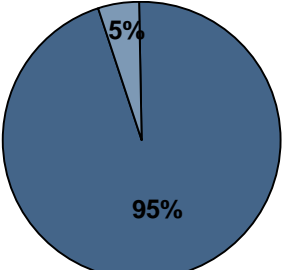
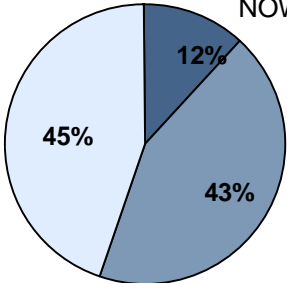
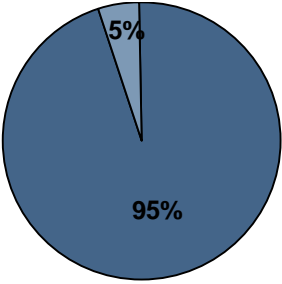

PAYMENT CARD

£0	£20	£60	£200
2	25	80	250
5	30	100	300
8	35	120	350
10	40	140	400
12	45	160	500
15	50	180	1000

High Quality	Medium Quality	Low Quality

CHOICE CARDS	Option A - No Change	Option B	Option C
Status of <u>Local Area</u> in <u>8 years time</u>			
Status of <u>England and Wales</u> in <u>8 years time</u>			
Status of England and Wales and Local Area in <u>20 years time</u>	NOW AND 2015 Same as now	IN 2015 95%	IN 2015 75%
Increase in your water bill and other household payments. <i>Note:</i> this payment will be added to the cost of avoiding any worsening of the water environment.	None	£ 200 per year	£ 100 per year
	Choose Option A - No Change	Choose Option B	Choose Option C
Remembering all the things you could do with your money, which Option would you choose, A, B or C?			

This card has only two options, please choose one of these.

	High Quality	Medium Quality	Low Quality
Choice Card 1			
	Option A - No Change		Option B
Status of <u>Local Area</u> in <u>8 years time</u>			
Status of <u>England and Wales</u> in <u>8 years time</u>			
Status of England and Wales and Local Area in <u>20 years time</u> IN 2027	NOW AND 2015	Same as Now	IN 2015 95% 
Increase in your water bill and other household payments. <u>Note:</u> this payment will be added to the cost of avoiding any worsening of the water environment.	No increase in water bills or other household payments		£ 10 per year
Remembering all the things that you could do with your money, which option would you choose, A or B			

High Quality	Medium Quality	Low Quality

Choice Card 2	Option A - No Change	Option B	Option C
Status of <u>Local Area</u> in <u>8 years time</u>			
Status of <u>England and Wales</u> in <u>8 years time</u>			
Status of England and Wales and Local Area in <u>20 years time</u>	NOW AND 2015 Same as now	IN 2015 75%	IN 2015 95%
Increase in your water bill and other household payments. <u>Note:</u> this payment will be added to the cost of avoiding any worsening of the water environment.	None	£ 200 per year	£ 50 per year
	Choose Option A - No Change	Choose Option B	Choose Option C
Remembering all the things you could do with your money, which Option would you choose, A, B or C?			

High Quality	Medium Quality	Low Quality

Choice Card 3	Option A - No Change	Option B	Option C
Status of <u>Local Area</u> in <u>8 years time</u>			
Status of <u>England and Wales</u> in <u>8 years time</u>			
Status of <u>England and Wales and Local Area</u> in <u>20 years time</u>	NOW AND 2015 Same as now	IN 2015 95%	IN 2015 75%
Increase in your water bill and other household payments. <u>Note:</u> this payment will be added to the cost of avoiding any worsening of the water environment.	None	£ 200 per year	£ 30 per year
	Choose Option A - No Change	Choose Option B	Choose Option C
Remembering all the things you could do with your money, which Option would you choose, A, B or C?			

High Quality	Medium Quality	Low Quality

Choice Card 4	Option A - No Change	Option B	Option C
Status of <u>Local Area</u> in <u>8 years time</u>			
Status of <u>England and Wales</u> in <u>8 years time</u>			
Status of <u>England and Wales and Local Area</u> in <u>20 years time</u>	NOW AND 2015 Same as now	IN 2015 95%	IN 2015 95%
Increase in your water bill and other household payments. <u>Note:</u> this payment will be added to the cost of avoiding any worsening of the water environment.	None	£ 100 per year	£ 200 per year
	Choose Option A - No Change	Choose Option B	Choose Option C
Remembering all the things you could do with your money, which Option would you choose, A, B or C?			

High Quality	Medium Quality	Low Quality

Choice Card 5	Option A - No Change	Option B	Option C
Status of <u>Local Area</u> in <u>8 years time</u>			
Status of <u>England and Wales</u> in <u>8 years time</u>			
Status of <u>England and Wales and Local Area</u> in <u>20 years time</u>	NOW AND 2015 Same as now	IN 2015 75%	IN 2015 95%
Increase in your water bill and other household payments. <u>Note:</u> this payment will be added to the cost of avoiding any worsening of the water environment.	None	£ 10 per year	£ 200 per year
	Choose Option A - No Change	Choose Option B	Choose Option C
Remembering all the things you could do with your money, which Option would you choose, A, B or C?			

High Quality	Medium Quality	Low Quality

Choice Card 6	Option A - No Change	Option B	Option C
Status of <u>Local Area</u> in <u>8 years time</u>			
Status of <u>England and Wales</u> in <u>8 years time</u>			
Status of <u>England and Wales and Local Area</u> in <u>20 years time</u>	NOW AND 2015 Same as now	IN 2015 95%	IN 2015 95%
Increase in your water bill and other household payments. <u>Note:</u> this payment will be added to the cost of avoiding any worsening of the water environment.	None	£ 5 per year	£ 200 per year
	Choose Option A - No Change	Choose Option B	Choose Option C
Remembering all the things you could do with your money, which Option would you choose, A, B or C?			

High Quality	Medium Quality	Low Quality

Choice Card 7	Option A - No Change	Option B	Option C
Status of <u>Local Area</u> in <u>8 years time</u>			
Status of <u>England and Wales</u> in <u>8 years time</u>			
Status of <u>England and Wales and Local Area</u> in <u>20 years time</u>	NOW AND 2015 Same as now	IN 2015 95%	IN 2015 75%
Increase in your water bill and other household payments. <u>Note:</u> this payment will be added to the cost of avoiding any worsening of the water environment.	None	£ 30 per year	£ 20 per year
	Choose Option A - No Change	Choose Option B	Choose Option C
Remembering all the things you could do with your money, which Option would you choose, A, B or C?			

High Quality	Medium Quality	Low Quality

Choice Card 8	Option A - No Change	Option B	Option C
Status of <u>Local Area</u> in <u>8 years time</u>			
Status of <u>England and Wales</u> in <u>8 years time</u>			
Status of <u>England and Wales and Local Area</u> in <u>20 years time</u>	Now and 2015 Same as now	2015 95%	2015 95%
Increase in your water bill and other household payments. <u>Note:</u> this payment will be added to the cost of avoiding any worsening of the water environment.	None	£ 5 per year	£ 200 per year
	Choose Option A - No Change	Choose Option B	Choose Option C
Remembering all the things you could do with your money, which Option would you choose, A, B or C?			

CARD 8

First improve the worst areas, as judged by scientists, regardless of where they are located,

First improve areas near to where many people live or visit, or

First improve areas where quick improvements can be achieved at relatively low cost.

Appendix F. Demographics Showcards

AGE

A	18-24
B	25-29
C	30-44
D	45-59
E	60-64
F	65-74
G	75+

EDUCATION

A	Primary
B	O levels, GCSE or CSE (1 or more passes), NVQ Level 1 or Foundation Level GNVQ
C	5 or more O levels, CSE grade 1's or GCSE grades A-C; School Certificate; 1 or more A levels or AS levels; NVQ level 2 or Intermediate GNVQ.
D	2 or more A levels; 4 or more AS levels; Higher School Certificate; NVQ level 3; or Advanced GNVQ.
E	First Degree, Higher Degree, NVQ levels 4 and 5; HNC; HND; Qualified Teacher Status; Qualified Medical Doctor; Qualified Dentist; Qualified Nurse; Midwife; or Health Visitor.

EMPLOYMENT STATUS

A	Working full-time employee (31+ hours)
B	Working part-time employee (1-30 hours)
C	Working - self-employed
D	Working and full time student
E	Not working - seeking work
F	Not working - full time student
G	Not working - retired
H	Not working - looking after home/children
I	Not working - permanently sick / disabled
J	Not working - other

INCOME

	Per Week	Per Year
A	Up to £86	Under £4,500
B	£87-£125	£4,500-£6,499
C	£126-£144	£6,500 - £7,499
D	£145-£182	£7,500 - £9,499
E	£183-£221	£9,500-£11,499
F	£222-£259	£11,500-£13,499
G	£260-£298	£13,500-£15,499
H	£299-£336	£15,500 - £17,499
I	£337-£480	£17,500 - £24,999
J	£481-£576	£25,000 - £29,999
K	£577-£769	£30,000 - £39,999
L	£770-£961	£40,000 - £49,999
M	£962-£1,441	£50,000 - £74,999
N	£1,442-£1,922	£75,000 - £99,999
O	£1,923 or over	£100,000 +

BENEFITS

A	Unemployment related benefits, or National Insurance Credits
B	Income support (not as an unemployed person)
C	Sickness or disability benefits (not including tax credits)
D	State pension
E	Family related benefits (excluding child benefit and tax credits)
F	Child benefit
G	Cold weather payment
H	Housing, or council tax benefits
I	Tax credits
J	Other (please specify)

ACCOMMODATION STATUS

A	Own outright
B	Own with a mortgage or loan
C	Shared ownership
D	Rented from council / local authority
E	Rented from Housing Association / registered social landlord
F	Rented from private landlord or letting agency
G	Rented from other

MEMBERSHIPS

A	Royal Society for the Protection of Birds (RSPB)
B	Surfers Against Sewage / Marine protection society
C	Canoeing/Boating/Rowing/Windsurfing club
D	Angling club
E	Ramblers Association
F	Friends of the Earth / Greenpeace
G	National Trust
H	Local wildlife trust or environmental organisation
I	Other similar organisation

Appendix G. Potential Biases

This section addresses common survey design issues relating to validity and reliability. The section is structured as a series of tables grouping the potential issues or biases into broad categories, followed by an overall conclusion on the expected validity and reliability of the results and on the preparedness of the survey instrument for the main stage fieldwork. The potential issues are grouped into four major concerns; incentives to misrepresent responses, implied value clues, scenario misspecification, and sampling and inference biases. The tables below contain descriptions of the specific issues and provide a summary response reflecting the approach taken in the SP design for the present study. The grouping and descriptions of the potential bias largely follows Mitchell and Carson (1989).

G.1. Incentives to Misrepresent Responses

Table G.1 presents a summary of the potential biases related to the presence or otherwise of incentives to misrepresent responses to WTP questions in surveys. This category includes hypothetical bias, strategic bias, interviewer bias and sponsor bias.

Table G.1
Potential Bias Types and Responses
Group 1: Incentives to Misrepresent Responses

Potential Bias Type	Description	Response
Hypothetical Bias	Choices and WTP values are not representations of true values as survey is not perceived to be a real event by respondents.	SP instrument presents a real valuation scenario, including maps of real places, and a credible survey context, to try and reduce the impact of this potential bias. Questions throughout the focus groups and cognitive interviews asked participants whether aspects of the survey were realistic. Such aspects included the payment vehicle and the timing of improvements. In all cases, very few amendments needed to be made following these testing phases. Evidence from the focus groups, cognitive interviews and the pilot survey strongly suggest that, almost universally, people answered carefully, thoughtfully, and truthfully.
Strategic Bias	Response given differs from actual WTP in attempt to influence the provision or actual cost of good	Valuation scenario designed to avoid incentives for strategic responses. Cognitive interviews asked respondents to articulate or "think- aloud" as they make choices and state a WTP value. These data showed no evidence of gaming responses.
Interviewer Bias	WTP response is an attempt to please or gain status with a particular interviewer	Responses to the main survey will be analysed after full data collection to ensure there is no interviewer effect, and if there is, to control for it.
Sponsor Bias	WTP response is an attempt to comply with assumed desires of the survey sponsor.	The sponsor of the survey is not mentioned in the main instrument.

Source: NERA

G.2. Implied Value Clues

When answering WTP questions in CV surveys, particularly in cases where the good is unfamiliar, respondents have a tendency to pick out clues given, intentionally or otherwise, by the survey instrument. These clues tend to have an anchoring effect on responses, leading to a bias towards the implied value cues.

Table G.2 presents a summary of the potential biases related to the presence or otherwise of implied value cues for survey respondents when answering WTP questions. This category includes starting point bias, range bias, relational bias, importance bias, and positional bias.

Table G.2
Potential Bias Types and Responses
Group 2: Implied Value Cues

Potential Bias Type	Description	Response
Starting Point Bias	Elicitation or payment vehicle introduces a WTP amount.	<p>The example choice card used for each respondent will be randomised. The analysis will examine whether there are any sequencing effects in the choice experiment.</p> <p>The order of the CE and CV questions will be reversed in two separate instruments.</p> <p>Follow up questions ask respondents how they arrived at WTP amount, and how they answered choice questions These will be analysed to examine whether there is any starting point bias.</p>
Range Bias	Elicitation method presents a range of WTP amounts.	<p>The example choice card used for each respondent will be randomised. The analysis will examine whether there are any sequencing effects in the choice experiment.</p> <p>The order of the CE and CV questions will be reversed in two separate instruments.</p> <p>The payment card for the CV contains a wide range. Literature suggests this serves well to simply diffuse the prior expectation as to what the WTP amount should be.</p> <p>Follow up questions ask respondents how they arrived at WTP amount, and how they answered choice questions These will be analysed to examine whether there is any range bias.</p>
Relational Bias	Description of good and its relation to other goods suggest potential WTP amount.	No other programmes are mentioned in the description of WFD. Top of mind questions are asked to understand how respondents derive the WTP amounts.
Importance Bias	The act of interviewing confers importance and thus value to the good.	While the survey will likely be the first time many respondents have heard of the WFD, the CE portion has the “No Change” or status quo option which should effectively signal to respondents that no payment/value is necessary.
Position Bias	The ordering of the questions about the good suggest how the good should be valued.	The order of choice profiles is randomised. The order of the CE and CV is reversed for half the sample.

Source: NERA

G.3. Scenario Misspecification

Scenario misspecification biases occur when the interviewee does not respond to the correct scenario; either the theoretical representation is incorrect, the amenity valued differs from the intended good or the market context is misunderstood by the respondent.

Table G.3 presents a summary of the potential biases related to the misspecification or otherwise of the valuation scenario. This category includes theoretical misspecification bias, symbolic bias, part-whole geographic bias, part-whole benefit bias, metric bias, probability of provision bias, budget constraint bias, elicitation question bias, and instrument context bias.

Table G.3
Potential Bias Types and Responses
Group 3: Scenario Misspecification

Potential Bias Type	Description	Response
Theoretical Misspecification Bias	The research has incorrectly applied the economics or the policy implications in the instrument design.	The survey design process has involved extensive interaction with policy makers and scientists to ensure that the science and policy implications are accurate. The valuation construct has been peer reviewed by a number of respected economists.
Symbolic Bias	The respondent provides a symbolic value and not a value for the good itself. (e.g. purchasing a warm-glow effect)	If responses are symbolic, then they will be insensitive to scope. Hence to demonstrate that symbolic bias is not present, one needs to demonstrate scope sensitivity. External tests, whereby different sample segments are given differently scoped goods to value, are preferred to internal tests, wherein respondents value differently scoped goods within the same survey. Arrow et al (1993) recommend an external test of scope sensitivity as a key requirement to demonstrate CV validity. In the SP instrument, external variability in the scope of the good provided is built into the design of the survey instrument by means of different initial environmental baselines in different parts of the country, and different end-points to be valued in split samples for the CV section, (75% green or 95% green in 2015). This variability will allow a powerful test of sensitivity to scope to be conducted. Results from the pilot suggest that this test will be satisfied.
Part – Whole: Geographical Bias	Respondent values the good using larger or smaller spatial attributes.	The survey is national, and is very clearly communicated as being so. Maps are presented to respondents showing exactly the areas under evaluation.
Part – Whole Benefit Bias	Respondent values broader or narrower range of benefits.	Focus groups and cognitive interviews verified that people clearly understood the good under evaluation, and did not consider any effects outside the valid range when making their choices or stating their WTP. The wording of the descriptions has been tested to ensure it captures all aspects of the policy that people would find important in making their valuation, with excess unneeded information removed. The normative colour and labelling schema was tested in the focus groups and cognitive interviews, and respondents accepted it as representing the descriptions fairly.
Metric Bias	Respondent values good on a	Focus groups and cognitive interview questions

Potential Bias Type	Description	Response
	different metric – usually one more simple than required by the researcher.	<p>examined how respondents used or did not use information about the WFD in decision making. The vast majority found the full combination of descriptions, illustrations, labels and colour codes helpful to construct their value, and used all of this information.</p> <p>Specific questions in the focus groups, cognitive interviews and pilot survey tested aspects of the valuation construct, eg timing of environmental improvements. This testing demonstrated that the respondent understood and reacted to the scenario as intended.</p>
Probability of Provision Bias	Respondent values good on an incorrect probability of provision.	Valuation construct assumes the good is delivered with certainty. This is a conservative approach because some people may discount their values due to a perceived risk that the good will not be delivered as described. Where these responses can be identified, from the reasons they give for their responses, they will be removed from the sample. This was found to be the case for 2% of choices in the pilot sample.
Budget Constraint Bias	Respondent does not perceive or consider budget constraints intended by researcher	<p>Focus groups, cognitive interviews and pilot all tested whether or not respondents consider all aspects of household budgets. Similar test included in main survey.</p> <p>In addition, a corrective entreaty is in place to remind respondents to consider budget constraint carefully in choosing willingness and ability to pay. In addition, CV is used as a check on CE to check for evidence of people not taking account of their budget constraints in the CE.</p>
Elicitation Question Bias	Question fails to elicit: (1) the highest amount the respondent will realistically pay before preferring to do without the environmental improvement, and (2) a firm commitment to pay that amount.	<p>CE and CV elicitation devices both selected according to best practice. In addition, CE and CV will be used as cross-checks on one another as each has different elicitation properties. CE respondents sometimes fail to adequately consider their budget constraints, and hence do not provide a realistic firm commitment to pay the amount offered; by contrast, CV questions are sometimes interpreted as a request for a reasonable, or fair, amount, which is generally lower than the highest amount the respondent would realistically pay before preferring to do without the environmental improvement.</p> <p>The survey analysis will examine the reasons respondents give for their CE and CV responses and synthesise the results from each.</p>
Instrument Context	The context provided by the preliminary material does not accurately convey the intended frame of reference.	<p>Contextual information was developed over a period of time, taking account of deliberative research group findings, and policy, science and stakeholder input.</p> <p>Focus groups, cognitive interviews and pilot survey have all tested and verified that the intended frame of reference is understood by respondents.</p>

Source: NERA

G.4. Sampling and Inference Biases

Table G.4 presents a summary of the potential biases related to sampling design, execution, benefit aggregation and inference. This category includes population choice bias, sampling frame bias, sample non-response bias, sample selection bias, temporal selection bias, geographical sequence aggregation bias, and multiple public goods sequence aggregation bias.

Table G.4
Potential Bias Types and Responses
Group 4: Sampling and Inference

Potential Bias Type	Description	Response
Population Choice Bias	Target population is not the same as the population to whom benefits and costs will accrue	The target population is households in England and Wales, which is the population that will bear the costs and obtain the benefits of the WFD improvements.
Sampling Frame Bias	Sampling frame does not give every member of the population a known probability of selection.	The sampling frame used to select locations gives known probability of selection to urban areas. Since the hall-test approach is employed, for reasons of speed and economic efficiency, there will <u>not</u> be a known probability of selection for individuals. Rather, a quota scheme will be employed to ensure the sample contains a good mix by age, sex and socio-economic class. The results will be weighted to represent the population post-survey using the census. The weights will be selected from the quota variables plus other demographic factors included in the questionnaire. By so doing, the inferences made from the sample to the population will be robust. More detail on the justification of the sampling strategy is given in the main report.
Sample Non-response Bias	Sample statistics on WTP-influencing characteristics differ between those answering WTP question and the population. This can be due to unit non-response, where individuals selected for the survey refuse to participate, or item non-response, where respondents refuse to answer the WTP question.	Issues relating to sample non-response bias will be examined as part of the main survey analysis.
Sample Selection Bias	Probability of an individual answering WTP question is related to WTP-influencing characteristics.	Issues relating to sample selection bias will be examined as part of the main survey analysis.
Temporal Selection Bias	Inference from sample results invalid due to changes in preference since survey.	Future users of the benefits estimates and functions derived from the SP survey will need to beware that with time comes a lessening of the validity of the results.
Geographical Sequence Aggregation Bias	WTP amounts are inferred for a different geographic sequence of improvements to that which was valued in the survey.	Inferences from the benefit functions to be estimated will be immune to the problem of geographic sequencing bias. This is because they deal with percentage changes in local and national water status levels as their inputs, rather than changes in the status of specific amenities, for which values would be dependent on substitute and complement availability. Hence, the benefit functions will be a valid source of inferences regarding improvements to any water site, or combination of water sites, in any order.

Potential Bias Type	Description	Response
Multiple Public Goods Sequence Aggregation Bias	WTP amounts are inferred for a public good nested within a different sequence of public goods to that which was valued in the survey.	The survey treats the WFD program as an independent public good with no substitutes or complements. Where potentially substitutable or complementary public goods are planned, then inferences regarding the benefits of the WFD programme may need to be revised. A particularly important example is the provision of public access to water sites. The survey instrument values a scenario with no change in access, however if access is significantly improved, then values for the WFD improvements may be higher than derived from the survey.

Source: NERA

G.5. Summary

This report has outlined the development and nature of a stated preference instrument, a surveying approach and an approach to value-aggregation, for valuing the benefits of possible sets of effects of implementation of the Water Framework Directive.

This development has been influenced by findings from throughout the study, including the literature and initial enquiries with the public and respondents, extensive expert and steering group comments at every stage, and successive iterations of empirical results concluding with the final focus groups, cognitive interviews and pilot testing. The approach has been checked for many possible biases or other shortfalls commonly afflicting SP survey instruments, and a suitable response to each has been provided.

On the basis of the full set of work NERA-Accent consider that the survey instrument developed in the study and presented in this report (Appendix A) is fit for purpose. If administered in a professional way to an appropriate sample of respondents it can be expected to provide informative and useful estimates of the benefits of a range of WFD policy alternatives. These will be able to be gauged for RBDs, and for England and Wales.

Appendix H. Variable Definitions and Summary Statistics

Variable	Definition	Mean	s.d.
Group 1: Environmental variables			
<i>delta_hl</i>	Variation in the high quality level, local area	0.75	0.12
<i>delta_ll</i>	Variation in the low quality level, local area	-0.57	0.17
<i>delta_hn</i>	Variation in the high quality level, E&W	0.70	0.10
<i>ln_delta_hl</i>	= $\ln(1+\text{delta_hl})$	0.56	0.07
<i>ln_delta_ll</i>	= $\ln(1+\text{delta_ll})$	-0.91	0.35
<i>ln_delta_hn</i>	= $\ln(1+\text{delta_hn})$	0.53	0.06
Group 2: Disposable income			
<i>ln_inc</i>	= $\ln(1+\text{income})$ (where income = 0 if missing)	4.27	2.74
<i>inc_miss</i>	= 1 if income not reported, 0 otherwise	0.27	0.45
<i>ln_oecd_eq_inc</i>	= $\ln(1+\text{oecd_eq_inc})$, (equivalised income, oecd)	4.25	2.71
<i>ln_mcc_eq_inc</i>	= $\ln(1+\text{mcc_eq_inc})$, (equivalised income, mcc)	4.26	2.72
<i>ben</i>	= 1 if receiving benefits (e.g., tax credits, child benefit...)	0.61	0.49
<i>children</i>	= 1 if household contains children	0.27	0.44
<i>q4a</i>	number of children in household	0.46	0.89
<i>single_parent</i>	= 1 if respondent is a single parent	0.05	0.22
Group 3: Use of Environment			
<i>contact_use</i>	= 1 if user of contact activities	0.44	0.50
<i>fishing_use</i>	= 1 if user of fishing	0.16	0.37
<i>otheract_use</i>	= 1 if user of other activities	0.81	0.39
<i>use</i>	= 1 if contact, fishing or otheract	0.85	0.36
Group 4: Attitudes			
<i>pol_control</i>	= 1 if wishing to continue improvements for pollution control	0.855	0.352
<i>club</i>	= 1 if member of a water related club	0.269	0.444
<i>water_pol</i>	= 1 if money spend on reducing water pollution is "too little"	0.527	0.499
<i>priority1_1</i>	First priority for investments = drinking water discolouration	0.201	0.401
<i>priority1_2</i>	First priority for investments = sewer flooding	0.307	0.462
<i>priority1_3</i>	First priority for investments = leakage	0.340	0.474
<i>priority1_4</i>	First priority for investments = river water quality	0.057	0.232
<i>priority1_5</i>	First priority for investments = interruption of supply	0.037	0.188
<i>priority1_6</i>	First priority for investments = bathing water quality	0.008	0.089
<i>priority1_7</i>	First priority for investments = protect animal and plant life	0.050	0.217
<i>priority1_8</i>	First priority for investments = don't know	0.001	0.027
<i>local_worse</i>	= 1 if status of local map if worse than expected	0.558	0.497
<i>national_worse</i>	= 1 if status of national map if worse than expected	0.523	0.500
<i>wfd_contact</i>	= 1 if first priority of WFD is improved condition for contact activities	0.230	0.421
<i>wfd_otheract</i>	= 1 if first priority of WFD is impr. Conditions for other activities	0.207	0.405
<i>wfd_habitat</i>	= 1 if first priority of WFD is improved habitat for plants/fish	0.492	0.500
<i>wfd_other</i>	= 1 if first priority of WFD is other	0.019	0.138
<i>wfd_fishing</i>	= 1 if first priority of WFD is improved condition for fishing	0.027	0.163
<i>wfd_equal</i>	= 1 if first priority of WFD is "all of equal importance"	0.019	0.136
<i>wfd_none</i>	= 1 if first priority of WFD is none/don't know	0.006	0.076

Variable	Definition	Mean	s.d.
Group 5: Other demographics			
<i>sex</i>	= 1 if respondent is a male	0.57	0.49
<i>edu_12</i>	= 1 if level of education between primary and O levels	0.41	0.49
<i>edu_35</i>	= 1 if level of education above A levels	0.39	0.49
<i>age_cont</i>	age (as a continuous variable)	49.8	16.8
<i>age_contsq</i>	= (age_cont)*(age_cont)	2757	1710
<i>age_18_29</i>	= 1 if age between 18 and 29	0.14	0.35
<i>age_65</i>	= 1 if age above 65	0.21	0.41
<i>housing_own</i>	= 1 if owner of accommodation	0.62	0.48
<i>housing_rent_social</i>	= 1 if renting from housing association / registered social landlord	0.06	0.24
<i>emp_work</i>	= 1 if employment status = working (except students)	0.51	0.50
<i>emo_stud</i>	=1 if full time student	0.02	0.14
<i>sec_1</i>	Large Emp - Higher Manag	0.02	0.12
<i>sec_2</i>	Higher professional occup	0.09	0.29
<i>sec_3</i>	lower manag	0.18	0.38
<i>sec_4</i>	Intermediate occup	0.12	0.33
<i>sec_5</i>	Small employers - own account	0.06	0.25
<i>sec_6</i>	low supervisory / technical	0.10	0.30
<i>sec_7</i>	semi-routine	0.09	0.28
<i>sec_8</i>	Routine occup	0.14	0.35
<i>sec_9</i>	Never worked / LT unemployed	0.09	0.29
<i>sec_10</i>	Not classified	0.10	0.31
Group 6: Geography			
<i>wales</i>	= 1 if country = Wales	0.088	0.283
<i>urban</i>	= 1 if in urban area	0.783	0.413
<i>rbd_1</i>	Anglian	0.072	0.259
<i>rbd_2</i>	Dee	0.050	0.217
<i>rbd_3</i>	Humber	0.206	0.405
<i>rbd_4</i>	North West	0.103	0.304
<i>rbd_5</i>	Northumbria	0.036	0.186
<i>rbd_6</i>	Severn	0.098	0.297
<i>rbd_7</i>	Solway Tweed	0.039	0.193
<i>rbd_8</i>	South East	0.054	0.226
<i>rbd_9</i>	South West	0.042	0.202
<i>rbd_10</i>	Thames	0.261	0.440
<i>rbd_11</i>	Western Wales	0.039	0.193

Variable	Definition	Mean	s.d.
Group 7: Survey instrument			
<i>cv_first</i>	= 1 if order of the questionnaire is CV then CE	0.49	0.50
<i>wb_1</i>	= 1 if water body type = lake	0.25	0.43
<i>wb_2</i>	= 1 if water body type = rural river	0.26	0.44
<i>wb_3</i>	= 1 if water body type = trac	0.24	0.43
<i>wb_4</i>	= 1 if water body type = urban river	0.25	0.43
<i>nochange_5</i>	= 1 if no deterioration cost is £5	0.34	0.47
<i>nochange_10</i>	= 1 if no deterioration cost is £10	0.32	0.47
<i>nochange_15</i>	= 1 if no deterioration cost is £15	0.34	0.47
<i>cv_95</i>	= 1 if cv scenario = 95%	0.49	0.50
<i>cvfirst_dcposition_0_1</i>	= 1 if ce first and dc position = beginning	0.18	0.39
<i>cvfirst_dcposition_0_2</i>	= 1 if ce first and dc position = middle	0.17	0.38
<i>cvfirst_dcposition_0_3</i>	= 1 if ce first and dc position = end	0.14	0.35
<i>cvfirst_dcposition_1_1</i>	= 1 if cv first and dc position = beginning	0.18	0.39
<i>cvfirst_dcposition_1_2</i>	= 1 if cv first and dc position = middle	0.18	0.38
<i>cvfirst_dcposition_1_3</i>	= 1 if cv first and dc position = end	0.14	0.35
Group 8: Understanding			
<i>understood</i>	= 1 if respondent understood "completely" or "a great deal"	0.86	0.34
<i>effort2</i>	= 1 if respondent gave "careful consideration"	0.74	0.44
<i>concentration</i>	= 1 if respondent maintained concentration throughout	0.87	0.33

Appendix I. Sample Characteristics

The numbers of interviews by RBD and gender are shown next in Table H.1.

Table H.1
Interviews Achieved by River Basin District and Gender

River Basin District	Interviews Achieved		
	Male, (%)	Female, (%)	Total (=100%)
Anglian	38.2	61.8	110
Dee	50.0	50.0	72
Humber	46.4	53.6	304
North West	36.9	63.1	157
Northumbria	44.6	55.4	56
Severn	45.6	54.4	147
Solway Tweed	36.2	63.8	58
South East	48.1	51.9	79
South West	37.5	62.5	64
Thames	42.9	57.1	382
Western Wales	43.1	56.9	58
Total	43.1	56.9	1,487

Source: NERA-Accent

Table H.1 shows that there are more females than males across all RBD. For England and Wales as a whole, the sample contains 43.1% males and 56.9% females. The four RBDs with the least proportion of males are Anglian, North West, Solway-Tweed and South West. Each of these has less than 40% male, and Solway Tweed has 36.2% male. These numbers depart from the design specification, which required a minimum of 45% male and female for each location.

In Anglian, Wimblington only had 29% males. This was a very quiet village, with only one shop open in the village and many recruits were users of the bottlebank. Almost all were women. Similarly, Brentwood in Anglian(38% male) was very quiet.

In North West, Cheadle and Gatley only had 17% males and was described as very quiet “poor footfall all day” making recruitment to quota very difficult.

In Solway-Tweed, in Carlisle (one of two locations in the RBD) only 31% were male. It poured throughout the day there and this made achieving quotas very difficult.

The numbers of interviews by RBD and age are shown in Table H.2.

Table H.2
Interviews Achieved by River Basin District and Age

River Basin District	Interviews Achieved			Total (=100%)
	Aged 18-34, (%)	Aged 35-54, (%)	Aged 55+, (%)	
Anglian	13.6	30.0	56.5	110
Dee	25.0	37.5	37.5	72
Humber	24.3	35.1	40.3	304
North West	19.9	40.3	40.1	157
Northumbria	9.1	23.3	67.6	56
Severn	32.0	34.9	32.7	147
Solway Tweed	14.0	34.5	51.5	58
South East	11.5	37.9	50.6	79
South West	7.8	39.1	53.1	64
Thames	22.2	41.7	36.4	382
Western Wales	27.9	37.2	34.9	58
Total	21.1	37.0	41.9	1,487

Source: NERA-Accent

Table H.2 shows that there are a number of areas where too few were recruited in the 18-34 age band and too many in the 55+ age band, relative to quota. The RBDs where this discrepancy is most evident are Anglian, Northumbria, Solway Tweed, South East and South West.

In Anglian, two of the four locations, Wimblington and Brentwood, were very quiet and had few young respondents (10% between 18 and 34 in Wimblington and 6% in Brentwood) and very many older respondents (81% over 55 in Wimblington and 66% in Brentwood)

In Northumbria, in Hexham, one of two locations, it was very difficult to recruit as the local market nearby “took away possible respondents”, car parking was very expensive and there were many tourists. Consequently the numbers of interviews was low and it was not possible to achieve quotas.

In Carlisle (one of two locations in Solway-Tweed) only 7% were aged under 34 years old. It poured throughout the day there and this made achieving quotas very difficult. At Penrith (55% over 55 years old, it also rained heavily and this made achieving quotas difficult.

Eastbourne, one of three locations in the South East, only had 50% aged over 55 and was reported as having an elderly population. There was torrential rain in Eastbourne and because there were many day-trippers and holiday-makers who live more than 15 miles away it was extremely difficult recruit. Heathfield with 42% aged over 55 years was reported as having a high proportion of respondents over 65.

For Shaftesbury (one of two locations in South West) only 3% of respondents were aged under 34 years old. The supervisor said: “There were hardly anyone under the age of 50 and absolutely no one under 30.” Similarly Taunton (12% under 34 years old) was described as “Very difficult to get 18-34 as many were not responsible for paying bills.”

Finally, the numbers of interviews by RBD and Socio-Economic Grade (SEG) are shown in Table H.3.

Table H.3
Interviews Achieved by River Basin District and Socio-Economic Grade

River Basin District	Interviews Achieved				
	AB	C1	C2	DE	Total (=100%)
Anglian	38.4	22.6	11.7	27.3	110
Dee	26.5	23.5	7.0	43.0	72
Humber	14.4	25.2	18.6	41.8	304
North West	10.1	23.5	26.3	40.1	157
Northumbria	28.2	25.0	12.8	34.1	56
Severn	19.7	21.4	19.7	39.2	147
Solway Tweed	17.1	24.1	27.6	31.2	58
South East	30.5	32.6	13.9	22.9	79
South West	28.1	40.5	17.3	14.2	64
Thames	28.1	29.3	16.5	26.1	382
Western Wales	25.0	8.0	25.0	42.0	58
Total	22.9	26.3	17.8	33.1	1,487

Source: NERA-Accent

Table H.3 shows that, relative to the quota targets of an even split by SEG:

- § Anglian had too many ABs (38.4%) and too few C2s (11.7%). Brentwood, one of four locations was reported as very upmarket town (this place had 56% ABs and 6% C2s)
- § Dee had too few C2s (7.0%) and too many DEs (43.0%). Neston and Mold, the two locations in Dee, both had low proportions of C2s (6% and 8% respectively) and high proportions of DEs (42% and 44%). These were both upmarket locations with high proportions of ABs and C1s and also many retired. Interviews at Neston were house-to-house which made keeping to quotas very difficult.
- § Humber had too few ABs (14.4%) and too many DEs (41.8%). This was driven by the very low proportion of ABs in three locations: Walsall, Grimsby, Kingston upon Hull (with 3% ABs in each) and the consequently high DEs in each of those areas 65% in Walsall, 48% Grimsby and 55% Kingston upon Hull. Grimsby was described by the supervisor as being “a very C2/DE area”. It rained in Walsall which made it more difficult to achieve quotas. Kingston in Hull was a low SEG area.
- § North West had too few ABs (10.1%) and too many DEs (40.1%). Four of the five locations in the North West had very low proportions of Wardle (0%), Whitefield (6%), Skelmersdale (0%) and Cheadle and Gatley (4%). Skelmersdale also had 84% DEs and Whitefield had 44% DEs. Whitefield and Cheadle and Gatley were quiet which made recruitment difficult and also the character of the locations meant there were few ABs in the area. Interviews at Wardle and Skelmersdale were house-to-house which made achieving quotas difficult and the achieved quotas strongly reflect the nature of households in the area.

- § Northumbria had too few C2s (12.8%). At Hexham, one of two locations, only 8% were C2s. The supervisor reported that car parking was about £6 per hour and the incentive of £8 made it difficult to recruit respondents. Also many tourists in the area who were out of scope. Hexham (57% DEs) was described as a DE area by the supervisor.
- § Severn had too many DEs (39.2%). This was driven by Hagley which had 75% DEs. This location was described as difficult to recruit in because of a late start and as a low SEG area.
- § South East had too few C2s (13.9%). Eastbourne, one of three locations in the South East, only had 9% C2s. There was torrential rain in Eastbourne and because there were many day-trippers and holiday-makers who live more than 15 miles away it was extremely difficult recruit.
- § South West had too many C1s (40.5%) and too few DEs (14.2%). Taunton, one of two locations, had 44% C1s and Shaftesbury only had 10% DEs. Shaftesbury was said to consist of mainly elderly and retired people who were either AB or C1. Taunton was described as “really an ABC1 area and it was difficult to get C2DE responsible for bill payment.”
- § Western Wales had too few C1s (8.0%) and too many DEs (42.0%).

H.1. Interviews Achieved Against Population Counterparts

This subsection presents a number of tables showing comparisons between the full sample obtained and population counterparts, drawn either from the 2001 Census, or from the 2006 Family Resources Survey. These tables provide an indication of how well the full sample represents the population, and accordingly if there are any areas in which there is a significant shortfall in the numbers of interviews achieved. It should be noted that it is the core of useable responses that will serve as the sample for analysis, rather than the full sample. This core is examined and compared with population counterparts in the next section following identification and removal of the non-useable responses, ie due to item non-responses, protests or outlying values. A further point to note is that population counterparts from the 2001 Census and the Family Resources Survey are not publicly available by River Basin District and so, where geographic distributions are presented, the standard Government Office Regions (GOR) are presented.

First, Table H.4 presents the distributions of the number of people in the sample, and in the 2001 population, by GOR / country and age.

Table H.4
People by GOR / Country and Age (Full Sample)

GOR	CRP 4 c/d ¹			Census 2001 ²			Sample Size (=100%)	
	Aged 18-29 (%)	Aged 30-64 (%)	Aged = 65+ (%)	Aged 18-29 (%)	Aged 30-64 (%)	Aged = 65+ (%)	4 c/d (Freq.)	Census ('000)
East Midlands	0.0	87.0	13.0	18.6	60.6	20.8	23	1,732
East of England	10.1	60.4	29.5	18.1	60.6	21.2	140	2,232
London	18.2	71.9	9.9	25.0	59.0	16.1	192	3,016
North East	7.1	53.6	39.3	18.6	60.1	21.3	56	1,066
North West	12.8	66.1	21.1	18.8	60.3	20.9	251	2,813
South East	8.0	62.3	29.7	18.5	60.4	21.1	239	3,287
South West	9.3	71.2	19.5	17.1	59.2	23.7	118	2,086
West Midlands	24.0	57.9	18.0	19.1	60.1	20.8	183	2,154
Yorkshire and Humber	13.5	65.4	21.2	19.4	59.7	20.9	156	2,065
England	13.3	64.8	22.0	19.5	60.0	20.5	1358	20,500
Wales	19.4	66.7	13.9	18.2	59.3	22.5	129	1,209
England and Wales	13.8	64.9	21.3	19.4	60.0	20.6	1487	21,709

Source: (1) NERA; (2) Census data (2001)

Table H.4 above shows that for England and Wales as a whole, the age distribution in the sample is reasonably close to the 2001 population except for a shortfall in the number of 18-29 year olds in the sample. Given that recruitment of respondents was restricted to water bill payers, and numbers of 18-29 year olds still live in their parent's homes or live in situations where the land-lord pays the water bill, this may not be surprising.

Within GORs however, there are a few departures from representativeness. For example, there are no respondents in East Midlands in the 18-29 age group, whereas there are 18.6% in this age band in the population. This anomaly is based on a small sample size of 23 however.

Table H.5 presents a comparison of the sample against the 2001 census in respect of the number of people aged 18 to 74 by employment status, for England, Wales, and England and Wales combined.

Table H.5
People Aged 18-74 by Employment Status and Country (Full Sample)

Employment status	CRP 4 c/d			Census 2001		
	England (%)	Wales (%)	E&W (%)	England (%)	Wales (%)	E&W (%)
Working full-time (31+ hours)	33.4	36.3	33.7	40.8	36.2	40.5
Working part-time (1-30 hours)	15.7	14.5	15.6	11.8	11.3	11.8
Self employed	4.4	2.4	4.2	8.3	7.7	8.3
Working and full time student	0.9	1.6	1.0	2.6	2.3	2.6
Not working - seeking work	5.0	2.4	4.7	3.3	3.5	3.3
Not working - Full time student	1.3	0.8	1.2	4.7	5.1	4.7
Not working - retired	23.6	16.9	23.0	13.5	14.8	13.6
Not working - looking after home/children	6.6	12.9	7.2	6.5	6.4	6.5
Not working - permanently sick/disabled	5.1	8.1	5.3	5.3	9.2	5.5
Not working - other	4.1	4.0	4.1	3.1	3.5	3.1
Sample size:	1,247	124	1,371	20.5 million	1.2 million	21.7 million

Source: (1) NERA; (2) Census data (2001)

Note: figures for 4 c/d derived for people aged between 18 and 74, as the Census figures are for the population aged between 16 and 74.

Table H.5 shows a reasonably close match between the sample and the population. There are slightly fewer people working in the sample than in the population in England, with fewer full-time, more part-time and fewer self-employed people than in the census population. There are also more retired people in the sample in England, and more people looking after children in the sample for Wales than in the Welsh population.

Table H.6 presents a comparison of the sample against the 2001 census in respect of the number of people aged 18 to 74 by level of education, for England, Wales, and England and Wales combined.

Table H.6
People Aged 18-74 by Level of Education and Country (Full Sample)

Education level	CRP 4 c/d ¹			Census 2001 ²		
	England (%)	Wales (%)	E&W (%)	England (%)	Wales (%)	E&W (%)
Primary	14.7	18.9	15.1	28.9	33.0	29.1
O levels, GCSE or CSE (1+ passes), NVQ Level 1 or foundation level GNVQ	28.4	30.3	28.6	16.6	15.5	16.5
5+ O, CSE grade 1's or GCSE A-C; School certificate; 1+ A or As; NVQ level 2 or intermediate GNVQ	13.9	13.1	13.8	19.4	19.8	19.4
2+ A levels; 4+ As; Higher School Certificate; NVQ Level 3; or Advanced GNVQ	12.3	10.7	12.2	8.3	7.1	8.2
First Degree, Higher degree, NVQ Level 4/5; HNC; HND; Qualified teacher status; Qualified medical doctor, dentist; nurse; midwife; health visitor	27.7	27.1	27.6	19.9	17.4	19.8
Other / Don't know	3.0	0.0	2.7	6.9	7.2	6.9
Sample / Population size (=100%)	1,236	122	1,358	20.5 million	1.2 million	21.7 million

Source: (1) NERA; (2) Census data (2001)

Note: Sample size for E&W may not match up our total sample size due to missing values.

The sample contains fewer people with no qualifications than in the 2001 census population, but there are more with low level qualifications. There are also more with the highest level of education.

Table H.7 presents a comparison of average total weekly household incomes in the sample against 2006 Family Resources Survey estimates by Government Office Region (GOR), and for England, Wales, and England and Wales combined.

Table H.7
Households by GOR / Country and Weekly Income (Full Sample)

GOR	CRP 4 c/d ¹			FRS ²			Sample Size	
	Low <£300 (%)	Med (%)	High >£1000 (%)	Low <£300 (%)	Med (%)	High >£1000 (%)	4 c/d	FRS
East Midlands	18.8	68.8	12.5	34	54	12	16	1,928
East of England	43.5	49.6	7.0	26	57	17	115	2,284
London	34.2	45.0	20.8	27	47	25	149	2,624
North East	53.6	46.4	0.0	38	52	10	28	1,088
North West	56.9	35.8	7.3	36	54	12	137	2,852
South East	30.4	45.1	24.5	25	52	22	184	3,342
South West	31.3	58.6	10.1	30	58	13	99	2,041
West Midlands	51.1	41.1	7.8	35	54	12	90	2,128
Yorkshire and Humber	47.7	49.2	3.1	31	58	11	128	2,185
England	41.2	46.4	12.4	31	53	16	946	20,445
Wales	47.4	40.5	12.1	36	53	12	116	1,251
England and Wales ¹	41.9	45.8	12.3	31.3	53.0	15.8	1062	21,696

Source: (1) NERA; (2) Family Resources Survey (2006)

Notes: 1; NERA calculation for FRS figures Sample size may be lower than the number of respondents due to non-response

Table H.7 shows a reasonably close match between the sample and the FRS counterpart by income, but there are more low income households in the CRP 4c/d sample than in the FRS (2006) sample, and fewer high income households. This finding is observed across most of the regions.

Table H.8 presents a comparison of the number of households by urban and rural areas within GORs.

Table H.8
Households by GOR / Country and Rural-Urban Area (Full Sample)

GOR	CRP 4 c/d ¹		Joint Govt Dept Classification ²		Sample Size
	Rural (%)	Urban (%)	Rural (%)	Urban (%)	4 c/d
East Midlands	0.0	100.0	29.5	70.5	23
East of England	31.4	68.6	31	69	140
London	0.5	99.5	0.2	99.8	191
North East	10.7	89.3	18.9	81.1	56
North West	7.6	92.4	12.1	87.9	250
South East	32.8	67.2	22.4	77.6	241
South West	41.5	58.5	34.1	65.9	118
West Midlands	4.4	95.6	15.7	84.3	183
Yorkshire and Humber	28.9	71.2	20	80	156
England	18.5	81.5	19.3	80.7	1,358
Wales	54.2	45.8	35.7	64.3	129
England and Wales ¹	21.6	78.4	20.2	79.8	1,487

Source: (1) NERA; (2) Joint Government Department Classification of Output Areas in England and Wales

Table H.8 shows that there are fewer rural households in East Midlands (0.0%) than in the population (29.5%), but this is for a single survey location in this region (Wigston). There are fewer rural households in the sample in the North East, North West and West Midlands regions and more rural households in the sample in the South East, South West and Yorkshire and Humber regions, and in Wales. Overall, the balance of urban and rural households in the sample is the same as in the population for England and Wales as a whole.

Table H.9 presents a comparison of households by composition and average total weekly income against the 2006 Family Resources Survey population counterparts for England and Wales as a whole.

Table H.9
Households by Composition (Full Sample)

Household Composition	Proportion (%)		Sample Size (Freq)	
	CRP 4c/d	FRS ²	CRP 4c/d	FRS ²
Households without children				
One adult	26.3	30.0	365	8,411
Two adults	35.9	32.6	498	9,141
Three or more adults	10.8	6.6	150	1,855
Households with children				
One adult				
One child	2.7	3.5	38	979
Two children	1.6	2.4	22	667
Three or more children	0.7	1.2	9	335
Two adults				
One child	7.7	7.6	107	2,130
Two children	6.1	9.0	84	2,521
Three or more children	3.0	3.6	41	1,010
Three or more adults				
One child	3.3	2.0	45	569
Two children	1.2	0.8	16	233
Three or more children	0.8	0.4	11	100
Households without children	73.1	69.5	1,013	19,467
Households with children	26.9	30.5	373	8562
All households	100.0	100.0	1,386	28,029

Source: (1) NERA; (2) Family Resources Survey (2006)

Note: we consider any household member under 18 as a children. Sample size may be lower than total number of respondents due to missing values.

Table H.9 shows a close match with the 2006 FRS population counterpart in respect of household composition over the full sample.

Table H.10 presents a comparison of the proportions of households receiving state support between the sample and the 2006 FRS population counterpart.

Table H.10
Households by GOR and Receipt of State Support (Full Sample)

GOR	CRP 4 c/d ¹		FRS ²		Sample Size	
	Receives State Support (%)	No State Support (%)	Receives State Support (%)	No State Support (%)	4 c/d	FRS
East Midlands	61	39	68	32	23	1,928
East of England	62	38	68	32	140	2,284
London	55	45	62	38	192	2,624
North East	61	39	75	24	56	1,088
North West	63	37	71	28	251	2,852
South East	57	43	67	33	239	3,342
South West	57	43	70	29	118	2,041
West Midlands	70	30	72	28	183	2,128
Yorkshire and The Humber	64	37	69	30	156	2,185
England	61	39	68	31	1358	20,445
Wales	62	38	76	24	129	1,251
England and Wales	61	39	68	31	1487	21,696

Source: (1) NERA; (2) Family Resources Survey (2006)

Table H.10 shows a good match between the sample and the FRS population counterpart, although there are slightly fewer households receiving state support in the sample in comparison with the population. The same pattern is observed across all English regions, and for Wales.

Table H.11 presents a comparison of numbers of households in the sample against the 2006 FRS by accommodation occupation status.

Table H.11
Households by Accommodation Occupation Status (Full Sample)

Type of Accommodation	CRP 4 c/d ¹			FRS ²		
	England (%)	Wales (%)	England and Wales (%)	England (%)	Wales (%)	England and Wales (%)
Owned outright	36	30	35	32	39	32
Buying with mortgage	27	32	27	38	37	38.
Shared ownership	1	2	1	n.a.	n.a.	n.a.
Rented - social sector	24	27	24	18	16	18
Rented – private sector	11	9	11	12	7	12
Rented - other	1	0	1	n.a.	n.a.	n.a.
Sample size (=100%)	1,332	127	1,459	20,445	1,251	21,696

Source: (1) NERA; (2) Family Resources Survey (2006)

Table H.11 shows a reasonably close match between the sample and the FRS population counterpart. However, there are somewhat fewer households that own their own properties and more that rent in comparison with the FRS population counterpart.

Appendix J. Inconsistencies

This section reports results from an analysis of inconsistencies between PCCV, DCCV, and CE responses. None of the inconsistencies identified are removed from our preferred analysis sample. We do however test the sensitivity of our key results to the inclusion or exclusion of inconsistent respondents.

J.1.1.1. DCCV versus PCCV Inconsistencies

Table J.1 shows the number of DCCV - PCCV inconsistencies by type. The first type of inconsistency is defined as a case where the respondent declined the DCCV scenario with a corresponding cost that was lower than their PCCV WTP response. The second type of DCCV - PCCV inconsistency is defined as where the respondent accepted a DCCV scenario which had a higher cost than PCCV WTP response.

Table J.1
DCCV - PCCV Inconsistency Cases

Accept DC Scenario?	inconsistent?		Total
	No	Yes	
Decline DC scenario with lower cost than PCCV WTP response	403	28	431
Accept DC scenario with higher cost than PCCV WTP response	748	308	1,056
Total	1,151	336	1,487

Source: NERA

There were 336 DCCV - PCCV inconsistency cases observed in total. The 336 inconsistent respondents include 308 cases where the PCCV WTP value given is “too low” given an accepted cost amount in the DCCV question, and 28 cases where the PCCV WTP value given is “too high” given a rejected DCCV cost amount.

Table J.2 shows a measure of the extent of the inconsistency for those respondents giving a “too low” PCCV WTP amount. The table presents a frequency distribution over intervals of the ratio of PCCV WTP to accepted DCCV cost amount.

Table J.2
Ratio of PCCV WTP to Accepted DCCV Cost Amount for “Too Low” PCCV Responses

PCCV as % of Accepted DC_bill	Frequency	Proportion (%)
0	40	13.0
0 - 10%	13	4.2
10% - 50%	124	40.3
50% - 80%	114	37.0
80% - 100%	17	5.5
Total	308	100

Source: NERA

Table J.2 shows that only a small minority of the “too low” PCCV responses (17 out of 308) are within 20% of the cost amount accepted for the DCCV question. More than half of the

“too low” respondents (40+13+124 = 177 out of 308) offered PCCV maximum WTP amounts of less than 50% the amount accepted for the DCCV question.

Table J.3 displays the counterpart to the above table for those giving “too high” PCCV amounts.

Table J.3
Ratio of PCCV WTP to Rejected DCCV Cost Amount for “Too High” PCCV Responses

PCCV WTP as % of Rejected DC Cost Amount	Frequency	Proportion (%)
100% - 120%	1	3.6
120% - 150%	1	3.6
150% - 200%	2	7.1
> 200%	24	85.7
Total	28	100

Source: NERA

Table J.3 shows that the large majority of “too high” responses (24 out of 28) gave values in excess of double the amount that they had rejected when asked the DCCV question.

One factor that we considered could be correlated with the degree of consistency in responses is the order of the DCCV and PCCV questions in the survey. Table J.4 shows the proportion of respondents giving inconsistent PCCV and DCCV responses by question order.

Table J.4
Proportion of Respondents Giving Inconsistent Responses by Question Order

Position of DC Question within CE	DC before PCCV (Freq, %)	DC after PCCV (Freq, %)
DC at Beginning of CE	19	26
DC in Middle of CE	20	23
DC at End of CE	20	29

Source: NERA

Table J.4 shows that respondents that answered the DCCV question first, embedded in either the beginning, middle or end of the CE, were less likely to give an inconsistent PCCV response, than were respondents answering the PCCV question first likely to give an inconsistent DCCV response. Thus, the CE-CV order appears to yield more consistent responses than the CV-CE order. There is no clear effect associated with the order of the DCCV question within the CE.

There are a number of possible explanations for the inconsistency observed in respondents’ answers to the two CV questions.

- § Scenarios perceived as different - respondents perceive that different amounts buy different degrees of environmental improvement, despite the scenario being specified as the same.
- § Incentive effects - respondents answer differently for perceived strategic gain, eg they offer a lower amount than their true value on the PCCV question to attempt to lower the cost of the scenario, or at least the part that they expect to have to pay. Conversely, on

the DCCV question, they may believe that an accept vote will be more likely to bring about the improvement, but that they won't have to pay their full share.

- § Learning effects - respondents' later answers more closely reflect their preferences, and / or their expectation of the cost of the scenario.
- § Persuasion effects - respondents give what they think is their true preference, but when presented as a straight choice, are willing to pay a higher price than they thought they would be.
- § Focussing effects - respondents focus more on the cost attribute when giving PCCV responses and more on the environmental attributes when answering choice questions, like the DCCV.
- § Random answering of questions not reflecting, or only weakly reflecting, true preferences.

Our analysis can only provide an indication of the relative frequencies that these alternative explanations are likely to have in the sample.

J.1.1.2. Choice Experiment versus Dichotomous Choice CV Inconsistencies

Table J.5 shows the number of CE - DCCV inconsistencies in the sample. Inconsistent CE - DCCV responses are identified as those where the DCCV question is rejected but a CE option is chosen with a higher cost and less environmental improvement than the DCCV scenario. There is no valid counterpart in respect of those rejecting CE amounts better than accepted DCCV in every respect. This is because any particular choice can be justified with reference to the other options presented on each card.

Table J.5
CE - DCCV Inconsistency Cases

Consistency of CE Choice Given Rejected DCCV Scenario	Freq	Percent
Consistent (decline worse CE option)	1,663	91
Inconsistent (accept worse CE option)	166	9
Total	1,829	100

Source: NERA

The number of CE - DCCV inconsistent cases identified is fairly low. There were 1,829 cases in the sample where a CE option was strictly worse than the DCCV scenario put to respondents and the respondent rejected the DCCV scenario. Out of these 1,829 cases, there were 166 inconsistent CE responses where the respondent accepted the CE option, and 1,663 consistent responses, where the respondent rejected the CE option.

Table J.6 shows a measure of the extent of the inconsistency for those respondents accepting a "too high" CE option given their rejection of the DCCV scenario. The table presents a frequency distribution over intervals of the ratio of rejected DCCV cost to accepted CE cost amount.

Table J.6
Ratio of Rejected DCCV Cost to Accepted CE Cost

Rejected DC Cost as % of Accepted CE Cost Amount	Frequency	Proportion (%)
0-10%	15	9
10%-50%	95	57
50%-80%	56	34
Total	166	100

Source: NERA

None of the rejected DC scenarios had a cost within 20% of the accepted CE option. Most of the inconsistent rejected DC cost amounts were between 10% and 50% of the accepted CE option.

Table J.7 shows the proportion of respondents giving inconsistent CE responses, given their DCCV response by question order.

Table J.7
Respondents Giving Inconsistent CE Responses, Given DCCV Response, by Question Order

Choice Card	Position of DC Question within CE			Total
	Beginning	Middle	End	
0 (example)	13	7	11	11
1	10	12	13	11
2	14	8	12	11
3	12	6	8	9
4	10	4	8	7
5	6	7	6	6
6	12	4	12	9
7	8	6	10	8
All Cards	11	7	10	9

Source: NERA

Table J.7 shows that there are somewhat fewer DCCV - CE inconsistencies when the DCCV question is embedded in the middle of the CE, than when it is either at the beginning or the end. There does not appear to be a clear pattern however with respect to the number of cards distance between the DCCV and CE questions.

Table J.8 examines how many respondents in total gave at least one inconsistent CE response, given their DCCV response.

Table J.8
Respondents Giving at Least One Inconsistent CE Response Given DCCV Response

At Least One Inconsistent CE Response, given DCCV Response	Frequency	Percent
No inconsistent CE responses	1,431	96.2
At least one inconsistent CE response	56	3.8
Total	1,487	100

Source: NERA

Table J.8 shows that the vast majority of CE responses were consistent with the DC responses indicating that these two elicitation formats are measuring the same underlying preferences, and that respondents have answered the elicitation questions consistently.

J.1.1.3. Choice Experiment versus Payment Card CV Inconsistencies

Table J.9 shows the number of CE - PCCV inconsistencies. These are defined as cases where a CE option is chosen with a higher cost than the PCCV WTP amount and less environmental improvement.

Table J.9
CE - PCCV Inconsistency Cases

Consistency of CE Choice Given PC WTP Amount and CV Scenario	Frequency	Percent
Consistent (decline worse CE option with higher cost)	7,964	77
Inconsistent (accept worse CE option with higher cost)	2,370	23
Total cases (options) for consistency check*	10,334	100
Total options (ex-no-change)	23,792	
Total cards shown (8 per respondent)	11,896	

Source: NERA

*Note: total number of cases for consistency check includes all CE options where CE cost is greater than the respondent's stated PCCV WTP amount, and where the environmental improvements in the CE option are worse than in the CV scenario.

Out of the 23,792 environmental improvement options presented to respondents in total in the CE, 10,334 were identified as relevant cases, where the cost offered to them was greater than their stated PCCV WTP amount, and where the environmental improvement offered was less. Table J.9 shows that of these, 23% were accepted and thereby inconsistent.

Table J.10 measures the extent of the inconsistency by presenting the frequency distribution over intervals of the ratio of PCCV WTP to accepted CE cost amount

Table J.10
Ratio of PCCV WTP to Accepted CE Cost on Worse Environmental Option

PCCV WTP as % of Accepted CE Cost Amount	Frequency	Percent
0	352	15
0-10%	81	3
10%-50%	928	39
50%-80%	867	37
80%-100%	142	6
Total	2,370	100

Source: NERA

In 142 of the 2,370 inconsistent cases the PCCV WTP amount was within 20% of the accepted CE cost amount. For the majority it was much lower, including a sizeable fraction reporting a PCCV WTP of zero.

Table J.11 shows the distribution of inconsistent responses by question order.

Table J.11
Respondents Giving Inconsistent CE Responses, Given PCCV Response, by Question Order

Choice card	Questionnaire Order		Total (%)
	CE, then CV (%)	CV, then CE (%)	
0	23	24	23
1	22	25	24
2	24	23	23
3	22	25	24
4	23	22	23
5	20	24	22
6	20	22	21
7	21	26	24
Total	22	24	23

Source: NERA

Table J.11 shows no clear effect of question order on the likelihood of responses being inconsistent.

Table J.12 shows the number of inconsistent CE - PCCV responses per person,.

Table J.12
Number of Inconsistent CE Responses Per Person Given PCCV Response

Number of Inconsistent CE Choices, Given PCCV WTP Response	Frequency	Percent
0	626	42
1	283	19
2	191	13
3	140	9
4	101	7
5	56	4
6	51	3
7	17	1
8	22	1
Total	1,487	100

Source: NERA

The majority of the sample gave at least one inconsistent CE response given their PCCV responses, however only a quarter gave more than two inconsistent responses.

J.1.1.4. Characteristics of Inconsistent Respondents

We have looked carefully at the respondents whose answers were inconsistent, as identified by discrepancies between the DC and PCCV valuation responses.¹ We sought to determine whether these respondents were not providing answers on actual preferences. In general, three broad hypotheses could explain the inconsistencies in the data. First, it is possible that the inconsistent respondents were simply guessing and that the answers given had no pattern or sense. This is commonly known in survey research as “noise”. Second, it is possible that

¹ Of the 366 inconsistent respondents, one respondent had no CE information, one fell into the top 1 percent (outlier), one was a CE protest and 17 were contingent valuation protests.

these respondents gave answers that may have been based in some estimate of preference, but were largely driven by elements of the design itself. Third, it is possible that for some respondents, their answers varied over the course of the questionnaire as they received more information (in the form of additional examples, charts and graphs) and had more time to access their actual WTP.

There is little evidence for the first hypothesis that all 336 respondents were “noise” and answered randomly. The inconsistent respondents were observed to understand just as much, devote as much effort and experience the same amount of fatigue as consistent respondents. As seen in Table J.13, there are no large differences between the two groups.

Table J.13
Comprehension and Focus of Inconsistent and Consistent Respondents

Interviewer recorded	Percent of Inconsistent Respondents	Percent of Consistent Respondents
Respondent understood a little to understood not at all	3.3	4.2
Respondent gave questions little consideration	2.1	2.7
Respondent lessened concentration	10.6	12.4

Source: NERA

Similarly, inconsistent respondents were not significantly more likely to themselves report being unsure of their willingness to pay answers in the payment card contingent valuation exercise. A total of 10.6 percent of inconsistent respondents reported being unsure or not knowing how sure they were compared to 8.8 percent of the consistent respondents. These results suggest that respondents who gave inconsistent answers were no less focused and engaged with the survey tasks and were no less sure of their own answers; therefore, it is highly unlikely that the inconsistencies are a result of random, non-revealed preference answers from respondents unable or unwilling to participate in the interview.

It is possible that the inconsistencies are a result of a design artifact. As seen in Table J.4, individuals who received the dichotomous choice contingent valuation question first were somewhat less likely to provide inconsistent answers. Arguably, the payment card contingent valuation question is a more onerous task for a respondent; as he must generate a maximum amount willing to pay independently, while taking into consideration budget constraints and potential changes in future income. It is also possible that the DCCV and the choice experiment cards provided an anchor for respondent answers, thus inconsistency was less likely to occur when the DCCV and full choice experiment preceded the payment card exercise. There is some evidence to suggest this, but there is also some evidence that this may not be the only possible explanation.

In reviewing the verbatim responses, we find that some respondents do mention the choice experiment cards or the numbers on the cards in the calculation of their answers. Of those who were inconsistent, only 0.6 percent mentioned the cards in their verbatim responses; this compares to 2.3 percent of consistent respondents.

The third alternative hypothesis for inconsistencies is that respondents, throughout the survey process are “learning” and are locating their preferences. The only definitive way to determine whether these respondents were in fact adjusting their answers as they were

provided with more information and had more time to incorporate that information would be to conduct debriefing interviews or to interview them again using qualitative techniques. This is not suggested. Instead, it is important to recognize that the overall share of inconsistent respondents is not overly large and that sensitivity tests have been conducted to determine the impact of including and excluding these particular respondents. Moreover, these respondents do not differ from those in the full sample in their attention and efforts in answering questions and they are no less sure of their own answers. Finally, there is nothing in their verbatim responses or the way they react to the materials shown (here particularly the maps) that would suggest the responses are in any way biased or fundamentally unreliable.

Appendix K. Validity Assessment

K.1. Introduction

Determining the validity and reliability of a SP study entails an examination of the total study design. Evidence is sought to establish that the questionnaire was constructed in an unbiased and transparent manner and that the appropriately selected respondents were encouraged to evaluate choices and select preferences approximating true valuations. Regarding the former, as the main report outlines, a very careful staged approach to the design was carried through, with substantial testing and peer review at each step. Validity refers to the degree to which the survey has measured real values and in doing so, has overcome the potential for biases and respondent confusion often associated with hypothetical questions. Validity can be categorised by two main types – content validity and construct validity. Reliability evaluates the degree to which the results can be replicated by other studies, including those with similar methodologies and those that provide similar measurements using different instruments. These three broad types of examining the choice modelling and contingent valuation exercises' success in eliciting true values are discussed in detail below.

K.2. Conceptual Issues Regarding Validity Assessment

The primary goal of the SP study is to elicit meaningful, truthful valuation information from a representative group of individuals. To determine whether the study has done this entails a review of all aspects of the study, including the questionnaire and sample design, the implementation of the survey and the interpretation of the results. Many of these aspects are discussed elsewhere in this report or in other reports specific to the development of particular aspects of the project. Generally, it should be noted here that validity assessments are not simply measures to be undertaken once the fieldwork is complete and the quantitative data are analysed. Instead, validity testing is a procedure which should occur at each successive step in the process of designing a credible SP instrument.

NERA and Accent have undertaken a number of validity and reliability evaluations throughout this project. With regards to the survey instrument, extensive pretesting using a series of focus groups and in-depth interviews enabled the creation of complex, yet clear questionnaire designed to avoid bias. As described more thoroughly in earlier reports, it is essential to point out that much of our understanding of the degree to which respondents understood the questionnaire, were able to evaluate the different options and were able to make valuations and choices based on real preferences is rooted in evidence accumulated at earlier stages within this project. In other words, the current assessment of reliability has foundations in extensive work undertaken to avoid bias and confusion in the design of the questionnaire and ancillary materials. In addition to work undertaken by NERA and Accent, the project and its design has benefited from the insight of a number of peer reviews. The sample and quotas were selected to ensure appropriate representation across England and Wales and RBD.

While there are no precise standards or benchmarks for what constitutes a reliable and valid SP study, there are a number of general guidelines useful for this determination. First, it should be demonstrable that the questions relate to the good at issue and that the respondents were able to understand the task set before them. Secondly, the results should comport with logical expectations and economic predictions and should be consistent with other reliable

studies, to the extent these alternative studies can be said to measure the same things. The remainder of this discussion focuses more specifically on the two general types of validity and offers further comment on reliability.

K.3. Content Validity Assessment

Content validity examines whether the instrument has been developed in such a way that respondents from varied backgrounds and varied interest levels can comprehend the questions being asked and can in turn, formulate accurate preferences. Judgements about content validity encompass the entire study design. A study with a high degree of content validity is one which can demonstrate, at each step in the process (including the development and pretesting of the questionnaire, the design and selection of the sample and the implementation of the survey in the field), that the utmost care has been taken to encourage respondents to produce true valuations. More specifically, content validity looks for evidence demonstrating that the good and its attributes have been correctly perceived and that the payment vehicle is considered to be plausible by respondents.

K.3.1. Development and Implementation

Significant care was taken to develop the description of the benefits to be brought about by the WFD.

K.3.2. General Evidence of Validity

In general, there is significant evidence that respondents were able to focus on the task at hand and were able to evaluate the alternatives offered. There were a small number of individuals who were unable to make choices (and were subsequently removed from the analysis); the majority of respondents were able to understand the questionnaire, gave the questions consideration and were able to maintain concentration throughout. Moreover, there were no partial interviews indicating that once respondents began the survey, they remained committed to its completion.

There is also evidence that respondents found the materials presented to be believable. Earlier iterations of the national and local water maps presented a different representation of water quality and used the colour red for the lowest quality areas. The final version of the survey used carefully chosen maps and used shades of blue to indicate the quality levels. After being shown their local area map, respondents were asked what they thought of the water quality and why. A review of these responses demonstrates that while many were surprised at the low level of quality in their local area, a very small number felt that the map was not accurate in its depiction of local quality. Only three respondents indicated that the map could not be accurate and that the percent of light blue or poor quality areas was not correct. Despite scepticism of the map, all three of these respondents provided positive CV willingness to pay amounts. In this case, disbelief of the graphic depiction did not interfere with the value estimations for these three respondents. All other respondents offered sensible reasons for their impressions of the maps. A majority of those who found the quality to be worse than they had expected stated that; they had a general idea that the water was better, they thought money was already being spent to improve the environment, their personal experience led them to believe the quality was better, or that the rural area “should” have higher quality. For those who felt the quality levels were as expected, most referred to personal experience, either seeing pollution, smelling the water or noting the absence of wildlife. Others remarked

that it was unrealistic to expect high quality in an urban environment. The 14 percent indicating that the quality was better than expected remarked on recent flooding and sewage overflows, experience with a poor quality site or having low expectations of an urban environment.

K.3.3. The Good and its Attributes

The answers respondents provide indicate that they were able to understand what was being asked and were able to evaluate the good and its attributes. The good (WFD improvements) was demonstrated to respondents using a variety of methods. Focus groups and in-depth interviews provided evidence that interviewees responded well to both maps and pictures depicting the changes. The study used both forms of visual aids and rotated the water body illustrations to avoid any potentially biasing effects of one particular drawing as compared to another. Respondents were also provided with a number of information cards with text explaining the WFD and its benefits. Furthermore, respondents were asked to state which element of WFD benefits would be most important. This helped respondents review and incorporate the possible benefits before moving to the choice exercise or the contingent valuation questions.

All respondents (regardless of the CE/CV order) were asked to review an example choice card. After reviewing the card and making a selection, respondents were asked to articulate the reasons for their particular choice. Only a small number of respondents were unable to provide a reason for their selection; 74 respondents stated that they “didn’t know” or did not have a response recorded. It should be noted that these respondents are not necessarily individuals who had difficulties with the exercise, but rather may have had trouble articulating precisely their exact reasoning. In fact there is evidence that this is the case as the number of “don’t know” responses decreased after the complete choice experiment. After seeing the seven sets, the total number of respondents unable to explain why they had made their particular selections dropped to 14 or 1 percent of the total sample. An even smaller number of respondents gave some sort of response indicating that they did not necessarily believe the improvements would be completely carried out or that they were not solely responsible for funding the WFD. A total of 11 respondents provided such answers.

The rate of “don’t know” or unarticulated responses is somewhat higher for the contingent valuation question. This is to be expected, as here individuals were forced to independently determine an acceptable price, as opposed to being asked to choose from a series of options. Despite the more challenging nature of this task, only 24 or 2 percent of the total sample were unable to articulate why they stated a particular amount. An additional 9 respondents indicated that they did not entirely believe the improvements would occur or that they were not solely responsible for funding.

Looking more carefully at the verbatim responses, we see evidence that respondents were able to evaluate the material and options presented and were further able to place this information within the context of their own preferences and real life budget constraints. The verbatim responses demonstrate respondents noted the scale of improvements, the impact of improvements on different geographies and the variations in cost. Additionally, the verbatim responses can be used to discern whether respondents selected options that made sense in relation to other responses and whether respondents were consistent across both the CE and CV format.

To determine whether the verbatim answers sensibly reflected respondents' selections, we can compare the responses of those who varied their choices with those who always selected the status quo option. As shown in Table K.1, respondents who selected the status quo option across all eight choices were overwhelmingly concerned with the cost of the programme, 79 percent of respondents who remained with the status quo said cost was the reason for their selection. While cost was also a concern for those who selected some of the options, the largest share of respondents stated that they balanced the cost and the improvements (37.4 percent).

Table K.1
Verbatim Responses for CE Exercise

Verbatim Code	Selected Status Quo Option Only Frequency (%)	Selected a Variety of Options Frequency (%)
Cost of package	79	24
Don't believe/No guarantee/Not solely responsible	6.2	0.5
Balance of cost and improvements	4.9	37.4
Other	4.9	1.5
The improvements alone	2.5	17.4
Local improvements only	1.2	10.3
Both national and local improvements	0	5.7
General environment	0	2.4
Don't know or no response	1.2	0.8
Total (%)	100	100
Total (#)	81	1,307

Source: NERA

Results from the verbatim responses to the CV question provide similar evidence of validity. In this case, we compare the verbatim responses of those who were not willing to pay anything with those who stated positive willingness to pay amounts. As shown in Table K.2, those who were not willing to pay anything indicated that they currently “pay enough” or that they simply could not afford to contribute; 53 percent of respondents felt they pay enough and another 30 percent stated that additional contributions would not be affordable. Those who were willing to pay were also concerned about affordability (44.3 percent) but also derived positive amounts by calculating an appropriate value (26.3 percent) or by determining a “fair price”(10.7 percent).

Table K.2
Verbatim Responses for Payment Card CV Exercise

Verbatim Code	Zero WTP Value Frequency (percent)	WTP Some Amount Frequency (percent)
Pay enough	52.7	2.4
Amount is affordable	30.4	44.3
Other	6.3	5.1
Water company or government should also pay	6.3	1.0
Calculate reasonable amount ²	1.8	26.3
Don't believe improvements will occur	1.8	0.5
Estimated a "fair price" ³	0.9	10.7
General environment	0	2.1
Want the specific set of improvements	0	5.8
Don't know or no response	0	1.9
Total (%)		
Total (#)	112	1,276

Source: NERA

Respondents were also given the opportunity to reevaluate their maximum willingness to pay and change their answer. A total of 146 respondents provided new values, but only 61 gave new values that were either higher or lower than the original value. The small share of respondents who offered a revised valuation had a distribution of verbatim answers no different from the respondents satisfied with their original answers. This indicates that while it was helpful to a small group of individuals to be able to adjust their answers, these persons were not unlike all other respondents in how they arrived at their estimated willingness to pay.

There is no direct correspondence between the verbatim codes used for the CE and CV questions but there are some common themes and ideas. The codes for these two questions were developed from "the ground up"; that is, the categories emerged from an analysis of the complete set of responses. Allowing the coding schemes to emerge from the data helps to avoid bias in a number of ways 1) it can reduce the burden on the interviewer to fit a respondent's answer into a specified code 2) complete open ends allow for responses which may indicate some methodological problem with the question and 3) respondents are encouraged to more completely answer, as opposed to giving a partial answer which indicates an already conceived category. Despite the precise lack of similarity between the coding schemes, we can explore whether respondents gave answers of similar themes to the open ended questions following the CE and CV experiments.

There were a small number of respondents who stated in the CV open end question that their maximum willingness to pay was driven by a desire for the improvements. Of these 74 respondents, 77 percent stated they used the quality or the quality and cost to help determine preferences in the CE experiment. Of the 89 who stated they already paid enough (CE exercise), 73 percent references the quality and the cost or the cost alone as the primary

² Respondents used a variety of calculations to arrive at a WTP figure. The majority of respondents broke an aggregate WTP amount into weekly or monthly contributions, some respondents based WTP on current water bills and other estimated the total amount of funding available for WFD if all households made a similar contribution.

³ Here respondents indicated that they arrived at an amount by what seemed "fair" or "reasonable" or by what amount of contribution would likely be a useful one.

driver of their WTP. As another example, of the 599 who said affordability set the maximum willingness to pay, 69 percent mentioned the cost and quality or the cost alone in the CE experiment.

K.3.4. Payment / Compensation Scenario

In designing a valid SP questionnaire, it is essential to ensure that method of eliciting payment is seen as plausible. There is no evidence from the verbatim responses suggesting that respondents felt the vehicle (increased water bills) was unrealistic. In fact, a number of respondents used their current water bills to calculate a maximum willingness to pay for the contingent valuation exercise.

K.4. Construct Validity Assessment

Generally, construct validity assesses whether the results of the CE and CV experiments comport with other measures, economic theory and expectations. Whereas content validity looks at the overall design of the study, construct validity more carefully examines the point-estimate results and compares these to previous theoretical and empirical works.

K.4.1. Convergent Validity

The literature search completed previously demonstrated that no studies of consumer valuations of environmental improvements to all water bodies have been completed in the UK. Thus, for comparative purposes we can only examine works that share some similarities with our own. This necessarily means that any comparisons must be simply indicative and will provide evidence on the reasonableness of our results but cannot be used to draw any specific conclusions. Appendix B provides a listing of other works with individual and aggregate level WTP estimates for environmental valuations. Some of these studies are related to water resources and reasonable comparisons can be made, other studies provide valuations for other goods (forest, air pollution and nature conservation) and therefore are only useful in providing broad parameters for comparison. Our results show that an approximate PC CV WTP of £50 per household per year, with DC CV and CE figures which are small multiples of that figure.

Perhaps the most similar study is the (1993) Mitchell and Carson work on improvements to US water bodies of a variety of types. Their results demonstrated a mean WTP of \$242 to improve water conditions from boatable to swimmable. In current pounds, this is roughly equivalent to £193.59. These results seem to indicate that our estimates are within a reasonable range for a study which examines values for country wide water improvements. It should be noted that Mitchell and Carson used only a CV method. Huber and Viscuzi (2006) use CE methods to estimate WTP for improvements to inland water bodies. They calculate that every 1 percent improvement in national water quality has a mean value of approximately £19.57 (\$39 USD). This study evaluates the change in lakes and rivers to “good” quality; that is water safe for swimming, water providing edible fish and water with a healthy aquatic environment. The improvements evaluated in this research were broader and less technical, moreover the baseline for at least some of these environments is comparable to the medium or even low quality as defined by the WFD. The authors point out that higher quality water base rates yield lower values, a finding which would help to explain the disparity in results.

The 2002 eftec study on bathing water and beach environment also provides some basis for comparison. This study used a choice experiment design with two versions of the water quality attribute; one, the risk of suffering an upset stomach after exposure to the water and two, the number of unsafe swim days in the season. The results indicate that respondents were willing to pay between £2.5 and £7.3 per household per year to improve water safety and quality from average to good. While significantly lower than our results, it should be noted that these results apply to coastal bathing water only and not all water environments. Moreover, the authors themselves note that their results contrast with other studies.

Bateman's et al (2006) on eutrophication also provides a comparable set of valuations. This study only applies to freshwater bodies and was only conducted in East Anglia. Using a one and one half bound CV method, respondents were asked to value a phosphate removal plan at a local sewage plant. The results indicate that respondents would be willing to pay an average of £75.41 per year and a median of £69.07. The authors also characterised "believers" (ie those who across a range of variables indicate that they feel the scenario is plausible) and find a mean of £66.39 and a median of £63.86 annually. The results here are only for freshwater and are for a particular type of environmental improvement, not all water bodies and all improvements necessary. Thus, we would expect these estimates to be lower than the results of the WFD study.

While the above studies yield different results, there are essential research elements that can explain the divergence. Many of the previous studies have looked at water quality improvements in a much broader, less technical scope than the improvements required by the WFD. Additionally, most previous studies are site or water type specific and do not evaluate costs for the entire country. Despite the differences, the results of the WFD research are within the range of expected and previously researched results and we can infer therefore the results are generally reliable.

K.4.2.Expectations-Based Validity

A more sophisticated analysis of the bid function of various covariates is discussed in the main report, and this discussion will focus on the simple order relationships between demographic and attitudinal variables and WTP. One of the primary expectations based validity tests is to examine the relationship income has on WTP. We would expect that as income increases, so does WTP and this pattern is demonstrated by the fact that higher income levels are consistently associated with a higher mean willingness to pay throughout our analysis. Similarly, we would expect that those who are employed have a higher willingness to pay, which again we find evidence of in our analysis.

The results of this study further conform to expectations in that users of the water environment have higher willingness to pay than those who do not use the water environment. Additionally, indicators of positive attitudes towards the environment, including membership in an environmental organization, attitudes towards national spending on water pollution, and opinions on water company spending on pollution all correlate as expected with willingness to pay.

K.5. Reliability

Testing for reliability is an examination of the stability of the preferences and stated values over time. Methodologically, this can be established by 1) re-interviewing respondents at a

different point in time to determine if the distribution of answers remains largely the same 2) comparing the distributions from two different, but statistically equivalent populations, or 3) comparing the relative stability of the estimates using repeated samples. Re-interviewing respondents presents a number of challenges both with implementation and interpretation. First, it is likely that some portion of respondents will not be able to be contacted after a period of time (people move, change phone numbers etc). Second, of those contacted, a portion is likely to decline participation in a second interview, which raises questions of selection bias. In this case, we would need to be concerned and test for differences between the group of respondents willing to participate in a second interview and those who were only willing to complete the first interview. Third, it is somewhat difficult to know how to precisely interpret a finding of difference between the two sets of results, should difference occur. Individual answers may change because a respondent has had time to more carefully consider the issues, has discussed the issues with others or some event (as an example, the recent flooding) has contributed to an attitudinal shift. Thus, while re-interviewing may generate valuable information on the reliability of the SP instrument, the interpretation of the results needs to be undertaken with great care.

We have not conducted the survey with a separate comparative population as the number of locations, the difficulties in achieving quotas, and the time and efforts required in fielding a survey of this length and complexity would have made this prohibitively expensive.

Few studies have been undertaken to test the reliability of estimates. Notably, Bateman and Jones (2003) complete a meta-analysis of estimations on the value of recreation at British woodlands. While not directly related to water and evaluations of water improvements, this study does provide some useful insight into some of the study design variables which may affect the results. Bateman finds that results are sensitive to the mode of elicitation but do offer somewhat consistent results.