

IMPACT

FROM INSIGHT TO INFLUENCE

SR21 Environmental priorities research report

Prepared for Scottish Water and the
Customer Forum

Prepared by Impact

23 May 2019

Project No. 937



**Scottish
Water**

Trusted to serve Scotland

Table of contents

1	EXECUTIVE SUMMARY	1
2	BACKGROUND	4
3	OBJECTIVES	4
4	METHOD	6
5	ACHIEVED NUMBERS	12
6	WEIGHTING	19
7	FINDINGS FROM EXISTING RESEARCH AND LITERATURE	20
8	RESEARCH FINDINGS	22
9	CONCLUSIONS AND NEXT STEPS	57
10	APPENDICES	59

1 Executive summary

1.1 Background and objectives

As part of the Strategic Review of Charges for period 2021-27 (SRC21), Scottish Water is undertaking an extensive Customer Engagement Programme (CEP). This programme will enable Scottish Water to listen to its customers and discover their current and future priorities and **expectations of their services**. **Engagement to date focussed on understanding overall priorities, whilst this research aims to understand customers' expectations of the environmental aspects of our business performance and the priority to be given to each area.**

The findings from the research will be used to inform future investment strategy, and guide Scottish Water in planning for the 2021-2027 period.

The overall objective of the research is:

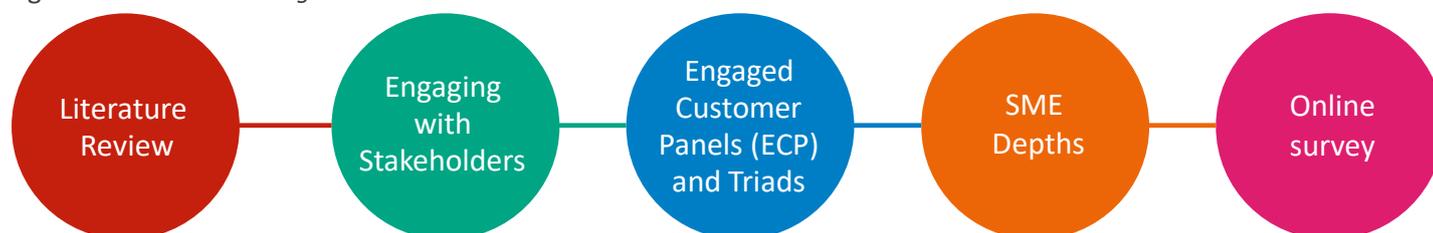
“To understand customers’ attitudes, expectations and prioritisation in relation to outputs of Phase 1 research of Scottish Water’s approach to their environmental responsibilities with regard to climate change, our natural environment, customer consumption of water, and waste water behaviours.”

In order to fully address the objective a number of detailed research questions were also put forward for explanation. These are listed in Section 3.

1.2 Method

The breadth of the research questions demonstrated that a multi stage engagement approach would be required to explore each question in sufficient detail. Figure 2 shows the outline of the research approach, including background research into the topic, engagement with internal and external stakeholders and finally consultation with customers through qualitative and quantitative primary research. Qualitative research was employed to understand in detail how customers currently perceive environmental issues and who is responsible for making improvements to the wider environment. Quantitative research allowed numerical values to be attached to these perceptions to understand the scale of these issues and their relative importance.

Figure 1: *The research stages.*



1.3 Key findings

Customers are generally highly satisfied with Scottish Water and the services they provide, with satisfaction levels improving further as customers age increases. Customers also agreed that Scottish Water offer good value for money for the services they provide.

Climate change is recognised as a global issue, one that everyone has a part to play in combatting. Customers gave examples of small changes they can make which if everyone did the same could make a bigger difference, such as using a reusable water bottle or reusable shopping bags. Single use plastic consumption was top of mind for many, particularly younger customers. Customers believe big businesses and government should lead by example in making efforts to reduce their carbon outputs and publicising what they are doing, to encourage others to do the same.

Half of customers expected that over the next 10 years they are likely to become *more* environmentally conscious of their water usage. This statement did not shed light on whether customers already feel they are doing enough, or could do more, only that they expect it to emerge as more top of mind in future. Future customers (16-25 year olds) were the most likely to agree, with nearly three quarters agreeing.

The relative importance of the environment amongst Scottish Water's other priorities was confirmed during this research, i.e. the environment should not be prioritised at the expense of key services. The top environmental priorities of both domestic customers and SMEs were to reduce microplastics reaching the rivers and reduce leakage in the pipe network.

Microplastics and the prolific use of single use plastics are currently receiving a lot of media attention worldwide and therefore it is hard to know whether this would have been such a high priority without this influence. These priorities were not informed by statistics on current levels of microplastics or leakage, neither were they given any information on the cost of such investments or the relative return on investments; they were just based on customers' perceptions of where they felt the most investment should be made at the present time. Investments of this kind should not come at an additional cost to customers however; they expect this to be funded through other means where necessary.

It was evident that customers require further education on several topics, including the work Scottish Water are currently doing, how to reduce water pollution and how to become more water efficient.

During the qualitative research, customer opinions in some cases changed dramatically once they had been educated on certain topics. For example, leakage was not seen as a top priority for investment by some, until the leakage figures were presented in the qualitative groups, at which point many felt this should be urgently addressed, and that it undermined the messaging to reduce customer consumption when such volumes were being wasted before even reaching the customer.

Therefore the rankings shown in the report should be considered within the context of the education provided; for the quantitative survey there was little or no education other than the statements provided, giving a directional ranking based on spontaneous customer reactions, whereas for the qualitative research respondents were shown a showcard and given opportunities to discuss at length and pose questions to each other to clarify where something was unclear.

1.4 Next steps

Leakage is an issue customers expect to be tackled – communicate what Scottish Water is doing and reinforce messages about reducing customer consumption too – we all have a part to play.

Microplastics are a current big issue and customers feel Scottish Water have a clear role to play here in investing to help prevent these reaching the environment. Use of single use plastic generally is a hot topic and of concern – this should be monitored over time to see whether it remains so over the next 5-10 years.

Scottish Water is already doing so much more than customers realise and customers are keen to hear this. Use simple, clear language in small bitesize information delivered across multimedia to reach as many customers as possible and maximise word of mouth.



2 Background

As part of the Strategic Review of Charges for period 2021-27 (SRC21), Scottish Water is undertaking an extensive Customer Engagement Programme (CEP). This programme will enable Scottish Water to listen to its customers and discover their current and future priorities and expectations of their services.

Phase One was focused on understanding overall priorities, carried out through developing an understanding of issues that had the greatest impact on customers, with a focus on the delivery of water and waste water services. There was a need for further insight into customers' expectations of the environmental aspects of Scottish Water's performance and the priority to be given to each area; for example, meeting the challenges of climate change, reducing Scottish Water's carbon footprint, adapting operations to meet the requirements of a circular economy and reducing water consumption.

The findings from this research will be used to inform future investment strategy, and guide Scottish Water in planning for the 2021-2027 period. Additionally, it will be a source of insight for external regulators, in creating a shared understanding of Scottish Water customers' priorities and attitudes to the environment and sustainability.

3 Objectives

The main objective of this study is:

"To understand customers' attitudes, expectations and prioritisation in relation to outputs of Phase 1 research of Scottish Water's approach to their environmental responsibilities with regard to climate change, our natural environment, customer consumption of water, and waste water behaviours."

Scottish Water identified a number of specific research questions to be explored. These have been split into three main themes and are listed out below.

3.1 Customer Perceptions

- How do customers view the topic of the environment and sustainability? What is the importance and role in their daily lives? Do customers consider where their water comes from and what if anything could be impacting on this?
- What is customers' awareness of climate change and their own roles, wider society's role and organisations' roles? Does the perception of role change depending on services provided e.g. what are their thoughts on water sector's role?
- Microplastics – awareness/concerns. Perceptions compared with visible plastics?
- Pollution – what is of greater priority, reducing sewerage litter or good/moderate water quality for biodiversity?
- Circular economy – Do customers understand it and consider the impact of their own actions on the wider environment; in particular on drinking water?
- Dry rivers – in the event of an interruption, would customers expect Scottish Water to abstract water to the point of drying a river?

3.2 Scottish Water's role

- To what extent do customers see Scottish Water as an environmentally responsible organisation? How do they think Scottish Water contributes to the wider environment? What information would customers find useful to help understand green credentials?
- How much do customers know about Scottish Water's regulatory obligations regarding the environment?

- How do customers feel Scottish Water should support economic growth in Scotland (e.g. new housing, industry) whilst balancing environmental obligations and potentially reducing the burden on the environment?
- What is Scottish Water's role in fulfilling wider initiatives and Scottish Government environmental policies? How should economic value and environmental value be balanced?
- How do customers view the impact of Scottish Water's core activities (e.g. River Water Quality, Bathing Water Quality) on the natural environment?
- What level of importance do customers place on Scottish Water delivering 'green/sustainable' solutions and technologies?
- Should Scottish Water have a role in educating and engaging with customers on the environment and if so, what is that role?

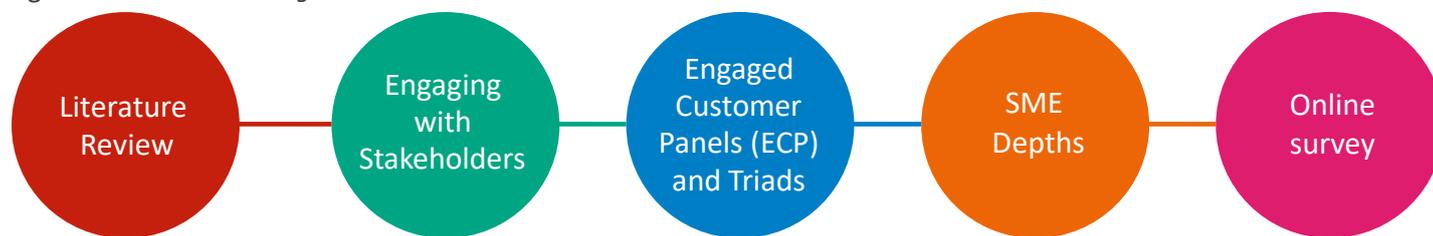
3.3 Scottish Water investment

- Do customers feel helping to mitigate the future impacts of climate change, through investment, should be a primary focus for Scottish Water?
- How is investment in the environment prioritised versus focus on service areas tested in Phase 1), would they categorise as one topic or a number of environmental topics, if so where do they sit alongside the issues featured in the phase 1 and against each other?

4 Method

Figure 2 shows an overview of the research process, beginning with the literature review, followed by both qualitative and quantitative methods.

Figure 2: *The research stages.*



There was a focus on engaging with stakeholders throughout the process, through an initial kick-off meeting and further flexible engagement with the relevant parties during the design and reporting stages.

The literature review provided important context to ensure the research built on existing knowledge.

The qualitative engaged customer panels (ECPs) allowed more complex topics to be covered in greater depth, while the triads enabled more remote customers to be reached, and the small and medium enterprise (SME) customer tele-depths gave a business perspective.

The inclusion of a quantitative survey provided confirmation of the findings using a nationally representative sample of domestic and SME customers, provided statistics to support the findings and relative ranking of priorities. All discussion guides and recruitment screeners can be found in 10.1 and 10.2. Please see these for more detail.

4.1 Literature Review

The literature review included previous research carried out by Scottish Water, literature from other water companies, as well as reports published by regulatory bodies and academic papers. The literature was examined, and then used to inform the design of the qualitative discussion guides and the quantitative survey.

Findings from the literature review were incorporated into the design of the research materials (recruitment screener, discussion guides, stimulus and questionnaire). A full report on the literature is available separately.

4.2 Qualitative ECPs

An ECP is a group of customers who come together in a focus group and are then reconvened a short time later for another group session. In this case, we ran four domestic ECP groups, which all reconvened one week later. This approach is particularly effective where the topics covered are complex and therefore the respondents need an element of education and also some time to reflect on the conversations. A single focus group is often not long enough to cover the topics required and therefore by re-convening, it is possible to continue the conversation afresh, without having to re-educate a new group of respondents. For two of these four groups, recruits were residents of an urban area (Glasgow), and for the second group recruits were based in a more rural area (Inverness and the surrounding area), allowing us to compare the attitudes of customers across these different locations. Urban/rural differences are often evident where some customers are likely to have a closer or more distant relationship with nature or the environment depending where they live. The group compositions also varied according to the age group of its members, in order to see if there were age-related differences in perceptions. Three of the ECP groups included only current bill payers, whereas the group comprising 18-25 year olds, only included future bill payers. The recruitment requirements for each group are listed below.

TABLE 1 QUOTA REQUIREMENTS FOR ECPs

Sample	Male	Female	Age	Social	Economic	/	Location
--------	------	--------	-----	--------	----------	---	----------

	size	(Min)	(Min)		Higher Education	
ECP Group 1	8-10	3	3	55+	A minimum of three in each band ABC1, C2DE	Rural (Inverness)
ECP Group 2	8-10	3	3	25-35	A minimum of three in each band ABC1, C2DE	Rural (Inverness)
ECP Group 3	8-10	3	3	35-55	A minimum of three in each band ABC1, C2DE	Urban (Glasgow)
ECP Group 4 (millennials)	8-10	3	3	18-25 who are not bill-payers	A minimum of three in (or recently) in higher education, not (or not been in) higher education	Urban (Glasgow)

Inverness participants were recruited from specified areas stated in the screening criteria; rural areas surrounding Inverness who fit the other screening criteria. Participants were recruited by either knocking door to door in outlying villages, or whilst on high streets closer to Inverness (in order to collect younger participants too). Glasgow participants were recruited through a mixture of this face to face method and list sampling. The latter involved recruiting from existing list of domestic customers who might be interested in taking part in research studies.

In order to take part, participants had to meet the following screening criteria:

- The recruit and close family or friends do not work in any related industries: advertising, journalism, water supply or wastewater, marketing, marketing research or academia.
- They live in Scotland, in a commutable distance to the relevant venue.
- They fit within either of the age bands for the two groups at their nearest ECP venue.
- They have not taken part in a market research group or depth interview within the last 6 months.
- They have not taken part in more than three research groups or depth interviews in the past 3 years.
- They fulfil either of these criteria:
 - They are eligible for one of the three groups targeting people aged 25 or older, and have complete/shared responsibility for paying council tax.
 - They are eligible for the 18-25 years old group and are not responsible for paying their household's council tax bills.
- They have a mains clean water and wastewater supply, and have no private supply (e.g. septic tank).
- They gave consent for Impact to use audio and video clips of their comments for the reports and were happy to be observed by people in the room/from another room/location.

Each group attended two 90-minute sessions one week apart, with a diary task to complete in between. The sessions followed a set structure and were moderated in order to guide the discussion.

The first session used the following structure:

TABLE 2: AREAS OF DISCUSSION FOR ECP SESSION 1

Topic area	Time allocation
Introduction / Warm Up	5 minutes
Introduction to Scottish Water	10 minutes
You and the environment	10 minutes
Scottish Water and the environment	15 minutes
Government policy and regulations	10 minutes
Policy context	10 minutes
Trade-offs & value	10 minutes
Phase one findings	15 minutes
Wrap up	5 minutes

In between the sessions, participants were asked to think about how different environmental/sustainable initiatives fit within the phase one priorities, on both a local and larger environment level. They were also asked to complete a short diary task, looking at the impact of their actions and Scottish Water’s actions on the environmental locally, and how Scottish Water could enhance the environment instead of merely protecting it.

The follow-up session, followed this structure:

TABLE 3: AREAS OF DISCUSSION FOR ECP SESSION 2

Topic area	Time allocation
Warm up and introduction	5 mins
Discussion around diary	10 mins
The Water Cycle	10 mins
Expectation of Scottish Water	20 mins
Wider Scottish Water responsibilities	15 mins
Communication and Education	15 mins
Priorities	10 mins
Wrap up	5 mins

Both discussion guides are available in full in Section 10.2. Recruits were provided with a £50 incentive for attending the first meeting and £75 for attending the second meeting.

4.3 Qualitative Triads

A similar reconvened approach was used for the virtual triads, whereby two triads (each a group of 3 customers) completed a 60-minute session over a WhatsApp video call, and reconvened a week later for a second session. Using triads in addition to the ECPs, allowed more flexibility in terms of geographic locations and customer vulnerability. With this in mind, one triad exclusively consisted of customers from remote rural locations, and the second consisted of vulnerable customers with mobility issues. Participants were recruited using the same methods as the ECP recruitment: through a mixture of going door to door and calling customers on an existing list over the telephone. The only age requirement was that participants needed to be aged 16 years or over. Beyond this, the same screening criteria used for the ECP groups was applied.

The triads followed the same structure and discussion guides as the ECP groups, and they were given the same diary task to complete between sessions. Due to the smaller group size, and remote moderation, each session only lasted 60 minutes (instead of 90 minutes).

All necessary stimuli were emailed to participants at least one day before the session. The triads were conducted by the moderator of the ECP sessions, to maintain consistency of approach and build on the findings from the ECPs.

Customers who took part in the triads received a £20 incentive for the first session and a £30 incentive for the second.

4.4 Qualitative SME Tele-depth Interviews

The SME depths were conducted to ensure business customers were also consulted in depth, and to understand comparative data to the domestic ECP findings.

Participants were recruited through list sampling, whereby the recruiters used an existing list of SME customers in the region that might want to take part and contacted them via telephone. Once they had agreed to take part,

participants were asked to complete a screening questionnaire in order to confirm their eligibility. The screening requirements for recruits were as follows:

- The recruit and everyone they live with do not work in any related industries: advertising, journalism, water supply or wastewater, marketing, marketing research or academia.
- They live in Scotland.
- They are working full or part time.
- Their business employs less than 250 people at the site they usually work at.
- They have sole or joint responsibility for paying the water bills for their workplace.
- They gave consent for Impact to use audio clips of their comments in the reports.

The tele-depths involved 60-minute individual telephone interviews. No reconvening session was required.

The session covered the sections below:

TABLE 4: AREAS OF DISCUSSION FOR SME DEPTH INTERVIEWS

Topic area	Time allocation
Moderator Introduction	2-3 mins
Introduction to Scottish Water	5 mins
The Water Cycle	10 mins
Your business and the environment	5 mins
Scottish Water and the environment	15 mins
Government policy and regulations	5 mins
Communication and education	5 mins
Priorities	10 mins
Wrap up	2 mins

As was the case for the triads, all necessary stimuli were emailed to participants at least one day before the session, and the ECP moderator carried out the SME interviews.

SME recruits were provided with a £80 incentive.

4.5 Quantitative Survey

The median length of time taken to complete the survey was 12 minutes. The survey was designed to not be too long in order to keep respondents fully engaged throughout, maximise response rate and reduce the risk of drop outs or respondent fatigue.

Both domestic and SME customers completed the survey. Recruits were classed as SME customers if they managed the utility bills of the business they work for, and their business had between 1 and 249 employees. After meeting these criteria, SME customers saw some variations in text or questions shown, compared to domestic customers (see questionnaire in Appendix 10.3).

The survey contained the following sections:

TABLE 5: AREAS COVERED IN QUESTIONNAIRE

Topic area
Introductory text, including GDPR and MRS reassurances
Screening
Awareness and satisfaction with Scottish Water
Scottish Water and the environment

Prioritisation – MAX DIFF ranking exercise

The future of water

Demographics

The screening criteria for recruits was as follows:

- The recruit and everyone they live with do not work in any related industries: advertising, journalism, water supply or wastewater, marketing, marketing research or academia.
- They live (or work if SME) in Scotland
- They are 16 years or older.
- They fulfil either of these criteria:
 - They have complete/shared responsibility for paying council tax.
 - They are not responsible for paying their household's council tax bills and are aged between 16 and 25 (these participants continued as future bill payers).
- They have a mains clean water and wastewater supply, and have no private supply (e.g. septic tank).
- They have no ongoing complaints or issues with Scottish Water.

Participants were screened out of the survey if they did not meet one or more of these criteria.

The questionnaire comprised mostly closed questions: a mixture of scale and dichotomous (yes/no) questions, as well as two open ended questions. The Max Diff exercise allowed participants to rank the relative importance of 12 specific environmental investments for Scottish Water to focus on (see Table 6). During this exercise, each screen showed participants four investment areas and asked them to select the most important and least important (see example in

Figure 3). They were shown nine pages like this in total, with the list of investment areas that were shown on each page changing each time, so that different comparisons were made each time. This data allowed us to calculate an overall ranking of the 12 investment areas, based on spontaneous customer attitudes.

TABLE 6: THE 12 ENVIRONMENTAL INVESTMENT AREAS USED IN THE MAX DIFF EXERCISE

1	Reduce amount of microplastics reaching river water
2	Reduce carbon emissions from Scottish Water activities e.g. water/sewerage processing, vans and employee vehicles
3	Reduce leakage from our pipe network
4	Educate the public on how to reduce water usage
5	Educate the public on how to responsibly dispose of items such as baby wipes and cooking oil
6	Educate businesses on how to protect the environment and reduce water usage
7	Increase the recycling of waste water into fuel and farming use
8	Provide water saving devices like shower timers or toilet inserts to save water
9	Reduce the number of pollution incidents from the waste water system

10	Use our land to reduce Scotland’s carbon footprint e.g. by hosting wind or solar farms, or planting trees.
11	Reduce Scottish Water’s overall energy usage and increase the proportion of renewable energy we use
12	For new projects, use “greener” building materials and practices

FIGURE 3: AN EXAMPLE OF THE MAX DIFF EXERCISE DISPLAY SHOWN

Which of the following is most and least important for Scottish Water to invest in...?		
Most important		Least important
<input type="checkbox"/>	Reduce leakage from our pipe network	<input type="checkbox"/>
<input type="checkbox"/>	Increase the recycling of waste water into fuel and farming use	<input type="checkbox"/>
<input type="checkbox"/>	For new projects, use “greener” building materials and practices	<input type="checkbox"/>
<input type="checkbox"/>	Educate the public on how to reduce water usage	<input type="checkbox"/>

Once the data was collected, it underwent data quality checks prior to any analysis. This involved firstly removing any respondents who completed the survey very quickly and had therefore not given considered results (speeders), also respondents who repeatedly chose the same response options, (e.g. the top option), or straight-lined in a grid question, indicating that they had clicked through the survey without considering their responses, were removed. Lastly those who wrote nonsensical answers for all open-ended questions or irrelevant answers were removed. The sample sizes shown below reflect the sample after these edits were made. The domestic customer data was also weighted to be reflective of Scottish demographics before analysis.

The survey was completed by an online panel of respondents who were pre-registered and open to research of this kind. Members of the panel are awarded points for each survey they completed, with a greater number of points given dependent on the length and complexity of the survey. Once a sufficient number of points have been accrued, these can be traded in for monetary vouchers valid in a number of retail outlets.

5 Achieved numbers

5.1 Qualitative ECPs

Table 7 outlines the profile of the sample who took part in the ECP qualitative groups.

TABLE 7: ACHIEVED NUMBERS FOR ECP GROUPS

ECP Group			
Total		37 (9-10 per group)	
Group 1 – Inverness (Rural)	Age Group		55+
	Bill Payer Type		Domestic Bill Payers
	Gender	Male	3
		Female	6
	Social Grade	ABC1	7
C2DE		2	
Group 2 – Glasgow (Urban)	Age Group		35-55
	Bill Payer Type		Domestic Bill Payers
	Gender	Male	4
		Female	5
	Social Grade	ABC1	6
C2DE		3	
Group 3 – Inverness (Rural)	Age Group		25-35
	Bill Payer Type		Domestic Bill Payers
	Gender	Male	5
		Female	4
	Social Grade	ABC1	2
C2DE		7	
Group 4 – Glasgow (Urban)	Age Group		18-25
	Bill Payer Type		Future Domestic Bill Payers
	Gender	Male	5
		Female	5
	Social Grade	ABC1	9
		C2DE	1
	In higher education		4
Not (and have never been) in higher education		6	

5.2 Qualitative Triads

Table 8 shows the sample profile for the two triads interviewed as part of this study.

TABLE 8: ACHIEVED NUMBERS FOR QUALITATIVE TRIADS

Triad			
Total number			6 (3 per group)
Triad 1	Key characteristic		Resident of a remote rural area of Scotland
	Gender	Male	1
		Female	2
Triad 2	Key characteristic		Vulnerable domestic customer with mobility limitations
	Gender	Male	1
		Female	2
Total	Social Grade	ABC1	4
		C2DE	2
	Age range		34-64

5.3 Qualitative SME Tele-depth Interviews

Table 9 shows the sample profile for the SME customers who were individually interviewed as part of the qualitative research.

TABLE 9 ACHIEVED NUMBERS FOR SME INTERVIEWS

Total number		6
Number of Employees	1-99 (small-sized company)	5
	100-249 (medium-sized company)	1
Sector	Food manufacturing	1
	Food services (café)	1
	IT	1
	Manufacturing	1
	Retail	2
Location	Edinburgh	3
	Glasgow	3
Commercial Water Usage	Small Water Bill	3
	Medium Water Bill	2
	Large Water Bill	1

5.4 Quantitative Survey

We aimed to mirror a nationally representative sample as closely as possible, including a sufficient number of SMEs. The online survey was sent out to a nationally representative sample; however, the responses back were not quite aligned with Scotland's demographic profile. In total, 1053 people were interviewed. This sample consisted of 856 domestic customers and 197 SME customers. Table 10, Table 11 and Figure 4 show the domestic and SME sample in relation to a number of key demographic variables.

TABLE 10: ACHIEVED NUMBER OF DOMESTIC INTERVIEWS (UNWEIGHTED)

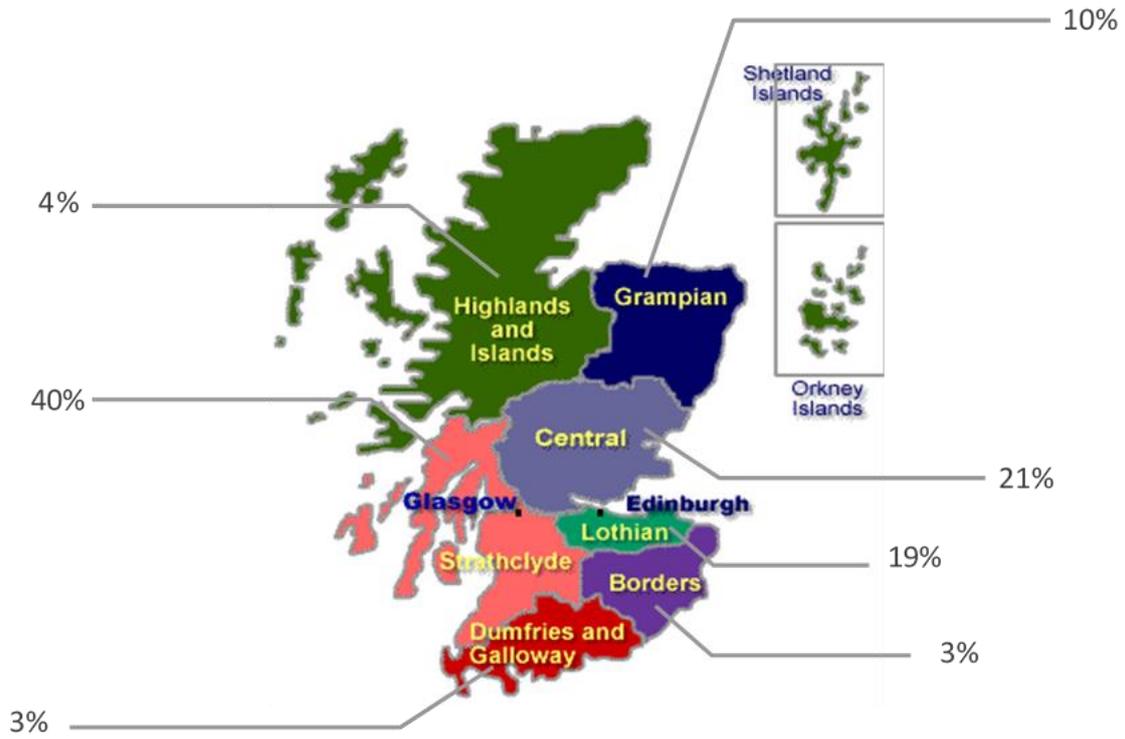
Achieved number of interviews		Achieved ¹	
		%	Number
Total		100%	856
Gender	Male	45%	384
	Female	55%	470
Age	16-25	6%	48
	26-35	12%	101
	36-55	33%	281
	55-64	22%	187
	65+	28%	239
Social Grade	A	6%	54
	B	26%	222
	C1	24%	207
	C2	14%	119
	D	9%	80
	E	20%	174
Location	Urban	65%	557
	Rural	35%	296
Water Consumption	Low Usage	49%	422
	Medium Usage	43%	368
	High Usage	6%	49
Vulnerable	Yes	57%	490
	No	43%	366
Bill Payer Type	Domestic Bill Payer	98%	835
	Domestic Future Bill Payer	2%	21

¹ Note that some respondents preferred not to answer some questions or gave a 'Don't know' answer.

TABLE 11 ACHIEVED NUMBER OF SME INTERVIEWS (UNWEIGHTED)

Achieved number of interviews		Achieved ¹	
		%	Number
Total		100%	197
Business's Water Consumption	Low Usage	60%	127
	Medium Usage	27%	56
	High Usage	5%	10
Annual Water Bill	Low (< £1,000)	44%	86
	Medium (£1,000 - £19,999)	22%	44
	High (≥ £20,000)	3%	6
Number of Employees	1-25	23%	97
	26-50	10%	42
	51-100	8%	35
	101-250	9%	36
Organisation Sector	Accommodation & food services	6%	13
	Agriculture, forestry & fishing	1%	2
	Arts, entertainment, recreation & other services	9%	18
	Business administration & support services	2%	4
	Construction	8%	16
	Education	6%	12
	Financial & insurance	5%	11
	Health	13%	28
	Information & communication	7%	15
	Manufacturing	5%	10
	Motor trades	1%	2
	Professional, scientific & technical	8%	16
	Property	2%	4
	Public administration & defence	1%	2
	Retail	14%	29
Transport & storage (including postal)	6%	13	
Wholesale	1%	2	

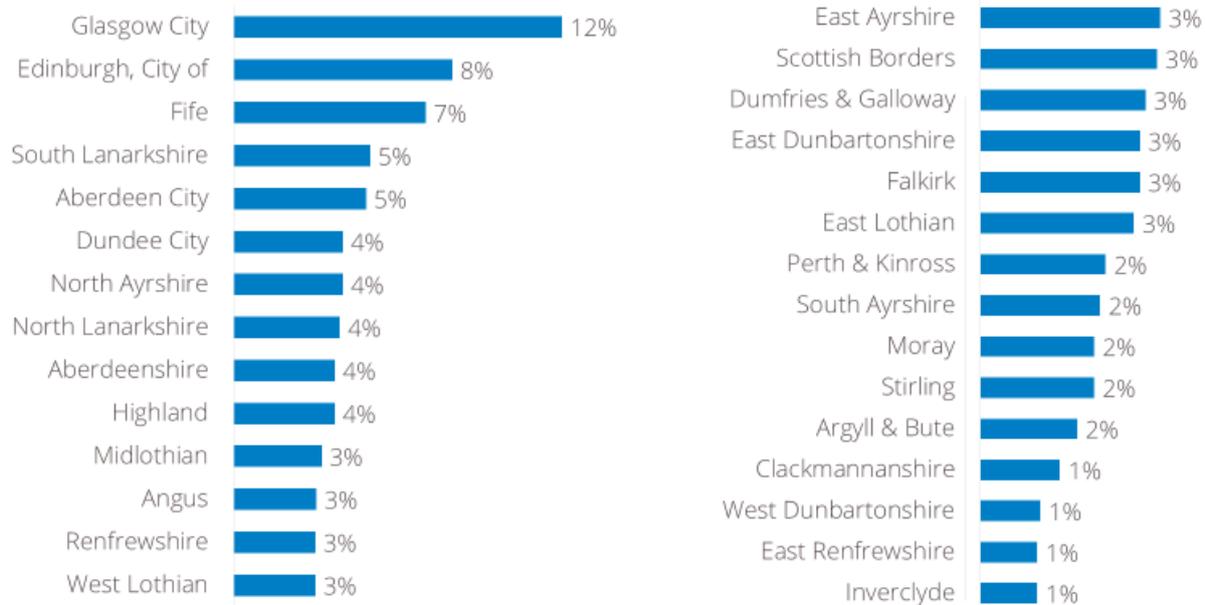
FIGURE 4: ACHIEVED NUMBER OF CUSTOMERS BY REGION THEY LIVE (DOMESTIC) / WORK (SMEs) IN. BASE: ALL (1,053). (UNWEIGHTED)



D2. Which area of Scotland do you live [Domestic]/work [SMEs] in? Unweighted base: All (1053).

Beyond this key information, Figure 5 to Figure 11 display further demographic information customers provided in the quantitative survey.

FIGURE 5 ACHIEVED NUMBER OF CUSTOMERS BY THE AREA THEY LIVE (DOMESTIC) / WORK (SMEs) IN.



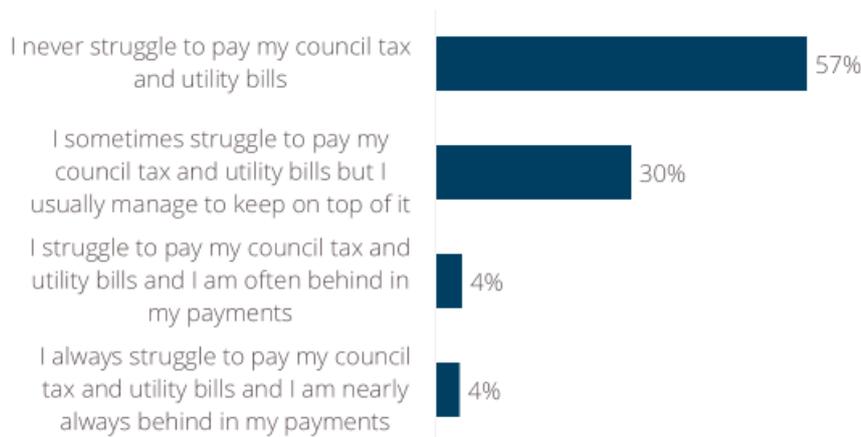
D1B Do you live on an island? Unweighted base: Domestic living in rural location
 D2 Which area of Scotland do you [[D2_PIPE:(QHIDSAMPLE):TEXT]] in? Unweighted base: All (1053)

FIGURE 6: ACHIEVED NUMBER OF DOMESTIC CUSTOMERS BY ETHNICITY.



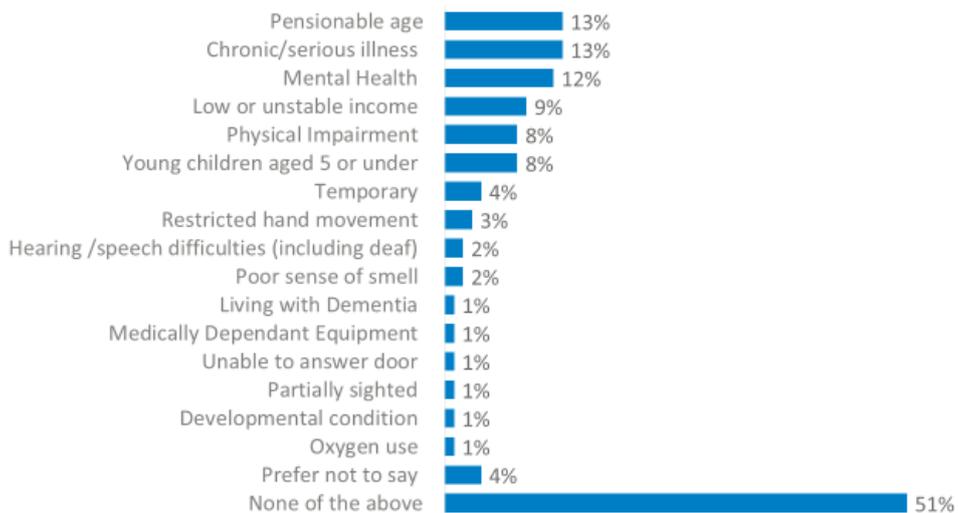
D8 Which of the following best describes your ethnic group? Unweighted base: All Domestic (856)

FIGURE 7: FINANCIAL INFORMATION AFFECTING COUNCIL TAX.



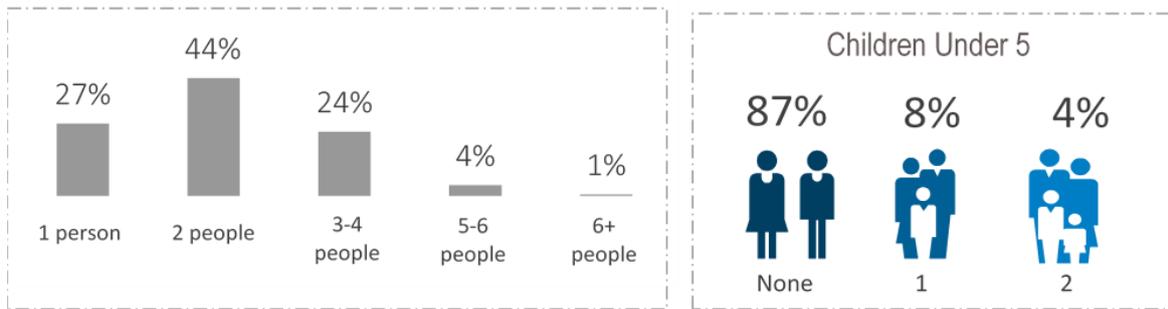
D11 Which of the following statements best describes your situation? Unweighted base: All Domestic Customers (856)

FIGURE 8: VULNERABILITY FACTORS WHICH APPLY TO THE CUSTOMER OR ANYONE IN THEIR HOUSEHOLD.



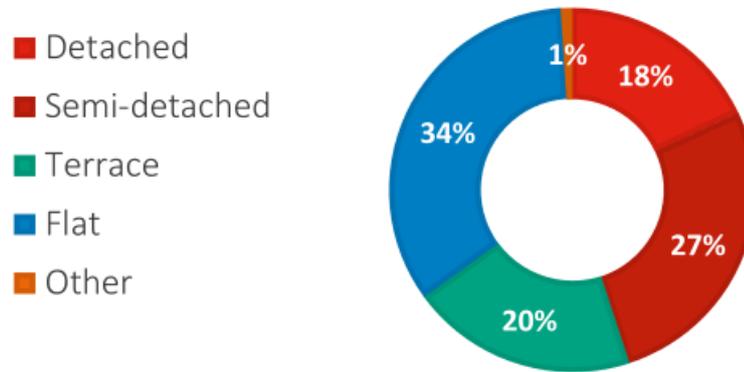
D13 There are a wide range of factors that could mean anyone might need extra help or support. Do you feel that any of the following factors apply to you or anyone in your household at the moment that might mean you need extra support? Unweighted base: Domestic (856)

FIGURE 9: NUMBER OF PEOPLE IN HOUSEHOLD.



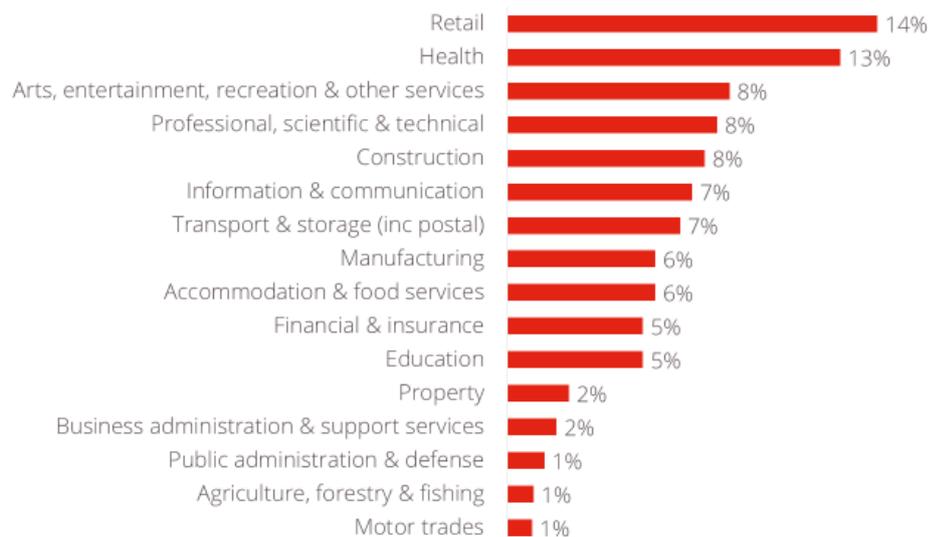
D5 How many people are there in your household all together (that are currently living at home with you)? Unweighted base: All Domestic (856). Unweighted.
 D6 How many children are there in your household under the age of 5 years old? Unweighted base: All Domestic (625).

FIGURE 10: ACHIEVED NUMBER OF CUSTOMERS BY PROPERTY TYPE.



D3 What kind of property do you live in? Unweighted base: All Domestic (856)

FIGURE 11: ACHIEVED NUMBER OF SME CUSTOMERS BY BUSINESS SECTOR.



S6b And what business sector best defines the core activity of your organisation? Unweighted base: All SMEs (414)

6 Weighting

Weighting is used in market research to ensure that the sample profile of the survey closely resembles the profile of the population it aims to represent. Typically, this would involve similar proportions of key demographics (gender, age) and geographical spread. It is only used when the natural profile of the sample diverges significantly from the population. This often results from certain groups being hard to recruit or from the researchers deliberately over-sampling some groups to ensure sufficient data to support a separate analysis of these groups.

Weighting is used to ensure that the results of the survey are representative of the population – it does not change the number of interviews in any way. So, while it is appropriate to report results based on weighted percentages, the reported sample sizes (which indicate the statistical robustness of the data) are taken as the actual number of survey responses.

Due to discrepancies between the population profile of the Scottish population and the final interview numbers, the data in this report has been weighted to ensure the sample profile for age, social grade and gender is representative of Scotland according to the National Records of Scotland. However, as shown in Table 12, whilst adjusting for social grade and age, the gender profile moved slightly away from nationally representative. This was unavoidable due to the demographic profiles achieved, but on balance the weighted figures are closer to nationally representative of Scotland as a result.

The weighted profiles are shown below in Table 12.

Table 12: *Weighting by gender, age and social grade.*

Variable		Achieved Numbers	National Records of Scotland	Weighted Figures
Gender	Male	45%	49%	42%
	Female	55%	51%	58%
Age	16-25	6%	15%	11%
	26-35	12%	16%	17%
	36-55	33%	32%	33%
	55-64	22%	15%	16%
	65+	28%	22%	23%
Social Grade	AB	33%	19%	19%
	C1	24%	31%	31%
	C2	14%	24%	24%
	DE	29%	26%	26%

Unweighted bases are shown throughout the report.

7 Findings from existing research and literature

The literature review revealed that although customers believe climate change and protecting the environment to be important, they are seen as less of a priority than more typical services, such as delivering clean drinking water and preventing flooding². Looking at specific environmental factors, reducing carbon emissions and other forms of pollution were seen as more important than improving river water quality. Some Scottish Water customers reported engaging in water-saving behaviours³ and customers believed it was a good thing to do in order to help the environment, reduce waste and costs, and prevent water shortages⁴. However, there were barriers preventing some customers from engaging in these behaviours, for example, cost and reduced comfort⁵.

Future bill payers were seen to have some notably different attitudes from current bill payers. For example, future bill payers (aged between 16-25) were more concerned about the environment than bill payers⁶. Younger customers (a group likely to include many future bill payers) were also more likely to believe climate change to have an extremely negative impact across the world, and were more likely to support water policies aimed at helping to reduce climate change².

Scottish Water was rated very positively in terms of satisfaction with how they protect the environment³. Customers' trust in how Scottish Water looks after the environment was lower, although it was improving. Customers felt that Scottish Water should be exceeding government expectations with regards to climate change, although not through increased customer bills⁷.

The ISM tool suggests that behaviour is affected by individual, social and material factors⁸. Research has also shown that education (instead of restrictions), personalised advice on water usage, communicating key benefits of saving water and providing water-saving equipment have been most effective in changing customers' behaviour⁴. One hindrance to behavioural change is the belief that changes to an individual's behaviour will not have an impact on climate change overall.

Business plans from south of the border have shown that water companies are putting many steps into place to help protect and enhance the environment, such as trying to reduce pollution levels (by 37-80%), placing greater importance on flood risk, increasing resilience, and introducing more catchment management schemes (South West Water's "Upstream and Downstream Thinking" programmes proved popular with Ofwat)⁹. PR19 Feedback from Ofwat included the need for water companies to put more focus on preventing pollution from entering water sources in the first place, rather than treating the contamination afterwards, and companies needing to explore water trading options in more depth.

² <https://www2.gov.scot/Resource/Doc/263223/0078735.pdf>

³ Customer Attitudes to the Environment Literature Review, Scottish Water

⁴ EST WET and Galashiels Campaign Focus Group Feedback (summary) PowerPoint

⁵ <https://www2.gov.scot/Resource/Doc/263223/0078735.pdf>

⁶ http://www.bsa.natcen.ac.uk/media/39284/bsa35_full-report.pdf?_ga=2.104338688.1072710531.1551265554-1147220778.1551265554

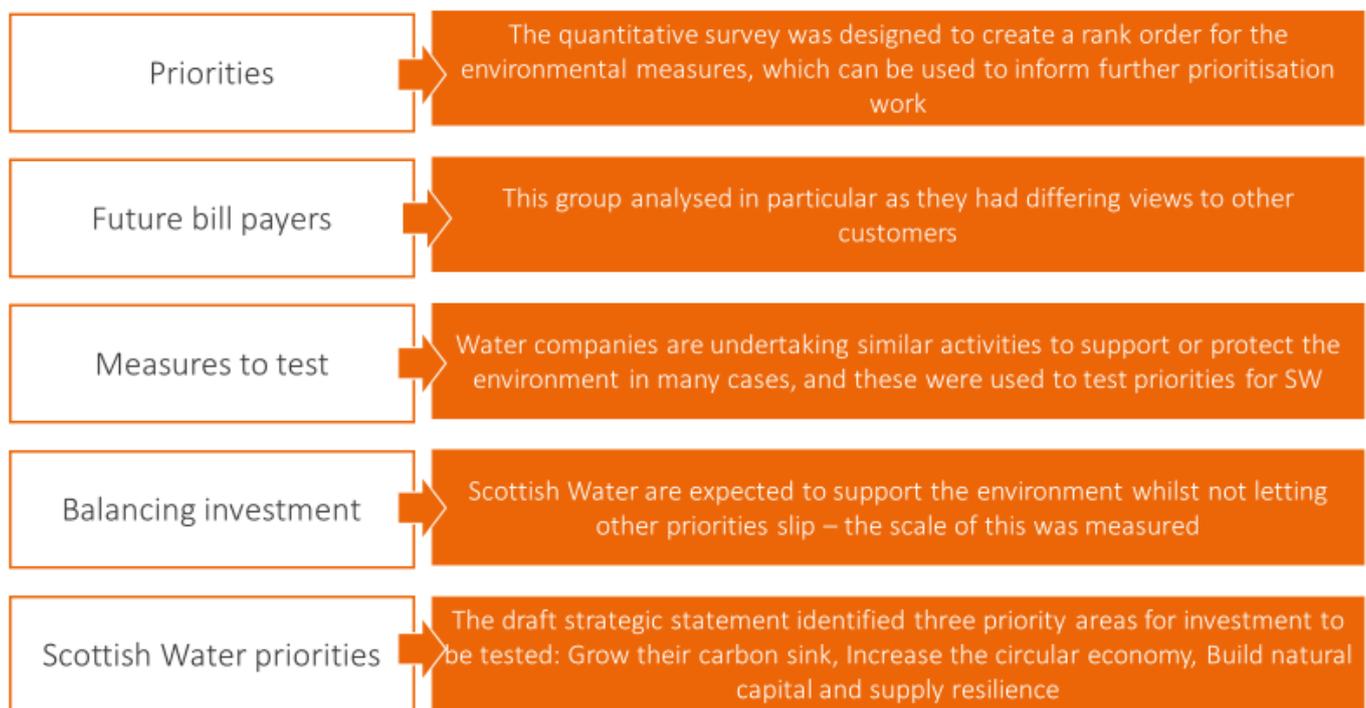
⁷ <https://www.scottishwater.co.uk/assets/about%20us/files/strategic%20projections/swbusinessplan201521march2014.pdf>

⁸ <https://beta.gov.scot/publications/influencing-behaviours-moving-beyond-individual-user-guide-ism-tool/>

⁹ <https://www.ofwat.gov.uk/wp-content/uploads/2019/01/PR19-initial-assessment-of-plans-Overview-of-company-categorisation-FINAL.pdf>

Figure 12 shows how the implications of the literature review were used to inform the rest of the research.

FIGURE 12: IMPLICATIONS OF LITERATURE REVIEW (WRITTEN PRIOR TO THE REST OF THE RESEARCH BEING CARRIED OUT)





8 Research findings

8.1 Customer perceptions

This initial section sets important context to understand customers' knowledge of the water sector and Scottish Water, how customers perceive the environment, to what extent the environment is a concern of daily life, what aspects are of particular concern and where the responsibilities lie for protecting the environment in future.

8.1.1 Perceptions of water in Scotland

Water in Scotland is considered to be plentiful and of high quality. Customers pointed to the many lochs and rivers, and persistent rainfall – which constitute part of the natural identity of Scotland – to support their belief.

“Well, I did hear that if it didn't rain for ten years, we'd still have plenty of water in Scotland” (55+ Inverness)

There was also some mention of the current Scottish Water television advertising campaign “Your Water Your Life”.



Its message that Scottish water is the best in the world was played back in some of the discussions.

“I've seen on the telly... adverts for Scottish Water about filling up your bottles” (35-55 Glasgow)

“There’s an advert telling people that we’ve got the best water in our taps, so don’t buy bottles of water, take a reusable and use it because we’re so lucky to have it” (18-25 Glasgow)

Generally, though, water is taken for granted.

“I think we’re all guilty of taking it a wee bit for granted; that we turn the tap on and there’s water there and it’s clear. Maybe it’s peaty sometimes, but that’s a thing that you accept” (55+ Inverness)

“I think in Scotland we take it [water] more for granted because we have more rain up here, whereas you see all the droughts in England and they’re a lot worse off” (35-55 Glasgow)

8.1.2 The water cycle

Customers have a broad understanding of the water cycle, especially the provision of fresh water. When shown diagrams that explain the cycle¹⁰ most participants recognised the process in general terms, although the collection of rainwater and storage in lochs and reservoirs was more familiar than the waste water process – with a few exceptions.

“I have a kind of idea what reservoir, I think, provides our drinking water. I’m not sure how it all gets processed and cleaned and where it goes afterwards” (SME Glasgow)

“It feels like we’ve got a system that works well but, I mean, like you say, you don’t know what’s going on behind the scenes. You don’t know” (35-55 Glasgow)

“I’ve got this idealistic view that it comes from little nice springs, but I actually don’t know, I’ve never thought about it” (18-25 Glasgow)

A small minority in the discussions questioned the safety of water being returned to the sea, revealing that for many people sewage remains both out of sight and out of mind. Others mused that there must be ways in which waste water is treated and returned to the environment. An Inverness customer cited drainage overflow problems arising since new housing had been built nearby and others referred to a controversial sewage treatment works project in Ardersier, to the north east of Inverness.

“I live at the bottom of the lane and I’ve been there for forty years and there was no problem with flooding. But now, they put new houses at the back, and it all comes down, which is not Scottish Water’s fault, but now we’re flooded all the time” (55+ Inverness)

“There must be a filtration or quality type [policy]. I’m guessing that there must be a supply and demand policy, so that we’re never at a point of shortage. I would guess there must be some kind of policies around the wastage in particular, it can’t just be turned over and sent back into the river or loch or whatever” (rural)

Participants observed that increasing people’s understanding of the water cycle would be likely to increase care for the environment and, in turn, more considerate behaviour. Nevertheless, the basic idea of a cycle – collecting fresh water from the environment and cleaning waste water to return it to the environment – is understood.

“I think they’ve got a vital role in raising awareness and obviously continuing to reduce pollution and make it safe for people to use and drink. That even applies to beaches actually” (mobility issues)

¹⁰ See appendix 10.4.1 ECP and Triad Stimuli

8.1.3 Understanding the role of Scottish Water

Scottish Water is positively perceived, although awareness of its responsibilities is limited. The main association is with the responsibility to provide clean drinking water; dealing with waste water is much less salient. Customers perceive Scottish Water in functional terms as a utility.

“I think about the water that comes out of the tap and that you drink. I don’t really think about the stuff that gets taken away and what’s done with your waste. Stuff like that doesn’t really register with me” (35-55 Glasgow)

“I hadn’t considered that Scottish Water deal with the treatment and they take the water away from houses and take all the sewage and stuff. It seems obvious now, but I just thought of it as they’re filtering the water into the taps” (18-25 Glasgow)

“I’m fortunate enough that I live in a rural area that is surrounded by a river and a couple of lochs and reservoirs. So, my assumption, more than knowledge, is always that Scottish Water has a stake in that” (rural)

Among SMEs – who deal with licensed providers rather than directly with Scottish Water – the business is perceived in more remote terms as the provider of the infrastructure that works behind the scenes.

“I was kind of under the impression that they were just a wholesaler and oversaw it so if there were any issues, then they would come out and sort any issues in the street and that kind of thing” (SME Glasgow)

“I just presumed they were a government body like a council” (SME Edinburgh)

“We don’t get our water supplied by Scottish Water and I probably thought they would do more of the problems. If there were water leaks, or drain collapses etc., they’d be the people that you’d call out to fix those” (SME Glasgow)

The information provided about Scottish Water’s responsibilities¹¹ as part of the research process tended to confirm these general impressions. Some people picked out what they described as impressive figures, particularly the improvement in customer satisfaction levels from 60% to 90% and the reduction in running costs by over 40% since the formation of Scottish Water.

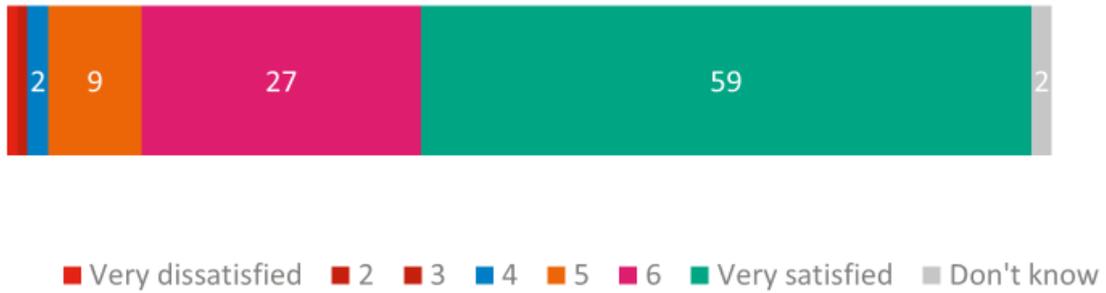
8.1.4 Scottish Water service perceptions

The results from the quantitative survey demonstrate that Scottish Water was positively rated by its customers, as 95% are highly satisfied with the service they provide (scoring 5, 6 or 7 out of 7).

¹¹ See appendix 10.4.1 ECP and Triad Stimuli

Figure 13 below shows the distribution of satisfaction scores, including those that answered 'Don't know'.

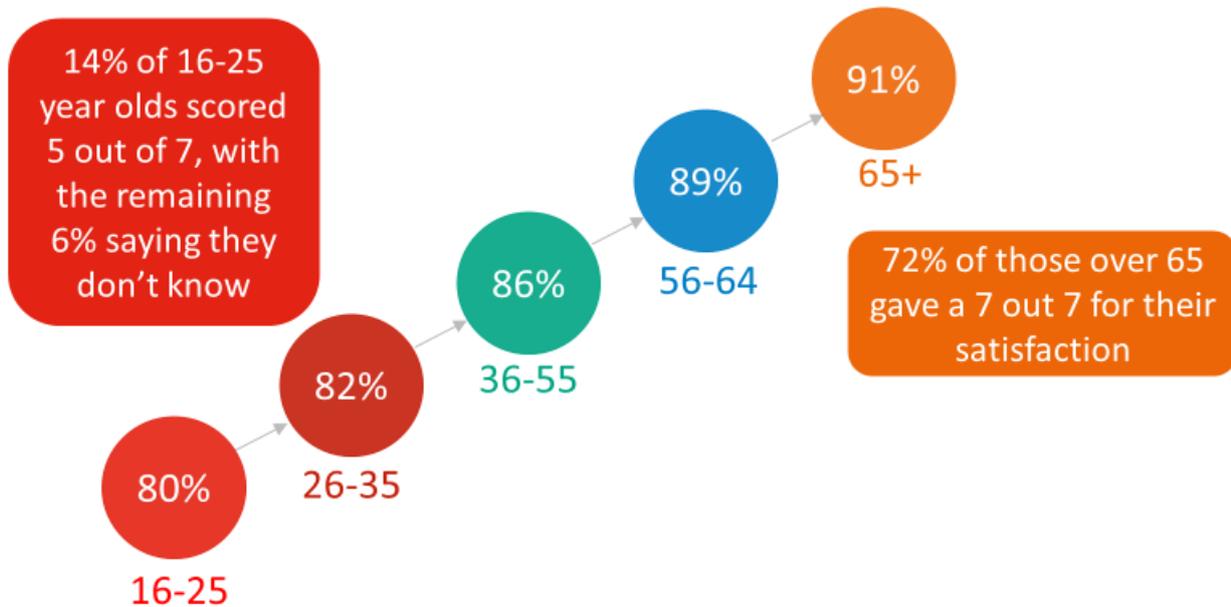
FIGURE 13: SATISFACTION WITH SCOTTISH WATER SERVICES



Q1_1 Overall, how satisfied or dissatisfied are you with the drinking water and waste water services supplied to you by Scottish Water? Unweighted base: All respondents (1053)

83% of customers stated that Scottish Water gives a service that offers good value for money (scores of 5, 6 or 7). There was a theme that value perception increases with age, as those aged 16-25 scored lowest, only 74% perceived Scottish Water as offering good value for money, up to 90% for those 65 and over (see Figure 14).

FIGURE 14: SATISFACTION WITH SCOTTISH WATER SERVICES BY AGE



Q1_1 Overall, how satisfied or dissatisfied are you with the drinking water and waste water services supplied to you by Scottish Water? Unweighted base: 16-25 (48) 26-35 (101) 36-55 (281) 56-665 (187) 65+ (239)

There was a close correlation between satisfaction and value for money, as 99% of those that believe Scottish Water offer good value for money were highly satisfied with the service Scottish Water provides. This reduced to 68% for those that believed Scottish Water offer less value for money, demonstrating the importance of value for money when it comes to satisfying customers (see Figure 15).

FIGURE 15: SATISFACTION WITH SCOTTISH WATER SERVICES BY VALUE FOR MONEY PERCEPTIONS



Q1_1 Overall, how satisfied or dissatisfied are you with the drinking water and waste water services supplied to you by Scottish Water? Q2_1 Thinking about the services you receive from Scottish Water, how would you rate them in terms of value for money? Unweighted base: good value for money (696) Not good value for money (269)

Scottish Water was presumed to be environmentally responsible, although this was a default perception for most. Its credentials derive from both the high-quality product and the Scottish natural environment, which are interlinked. There were mentions in the discussions not just of lochs and rivers, and some awareness of water testing, but also of Scottish Water signs at assets in the landscape such as reservoirs, treatment works and tree plantations, which on reflection suggested Scottish Water’s involvement in the environment, and consequently reasons to be contented about the environment.

“I’m assuming they’ve got a certain level of pollution they’re allowed to get away with... I’m assuming they have to comply with that minimum before they can issue waste water back that’s been treated. But I’m not sure” (18-25 Glasgow)

“Absolutely, and the stats show that: their incidents are reducing, their wastage reducing, the volume of activities where there are the solar panels at the plants etc. All these things being done. Surely they must get a tick by whatever environmental standard they’ve got to pass?” (rural)

“My boss’s partner, he does a lot of work for Scottish Water and he always gets quite a few call-outs to do water tests and things like that” (25-55 Inverness)

This was not dented by a few mentions across the discussions of burst pipes, water outages, dams reducing river flows and sewage outlets at beaches. On the contrary, the range of Scottish Water initiatives presented in the course of the research supported customers’ positive perceptions – and, indeed, the discussions inspired some interest to learn more, albeit with limited effort on customers’ parts.

There was also recognition of investments that would deliver future improvements to the environment and Scottish Water customers.

“They’ve just done a big project putting pipes down on Southside at Queens Park, so there’s a big sewage system. I know that’s going to be for the good of the future, but it was quite disruptive to the community at the time and a lot of roads had to be closed” (35-55 Glasgow)

8.1.5 Customer attitudes towards the environment

Among customers and SMEs there was some variation in attitudes towards the environment and associated claimed behaviours.



Some were advocates for the environment, while at the other end of the spectrum others were sceptical about environmental claims.

- The ‘environmental advocates’ were keen on recycling and reducing the use of plastics in packaging, and they are becoming concerned about microplastics pollution. They frown upon waste. They like to use refillable water bottles where possible. These people tended to be younger, future customers, more urban and of higher social grade.

“I hate buying a lot of packaging these days. It really starts stressing me out the more packaging I buy, so I’m trying to just reuse containers” (35-55 Glasgow)

“We talk so much about climate change... but there are still so many people who are not aware that even just by a simple thing, just getting a reusable water bottle or a reusable coffee cup, that can make such a huge difference” (18-25 Glasgow)

- The ‘environmentally responsible’ were less evangelical in their attitudes and behaviours. In following new social norms, they are forming new environmental habits. These people included SMEs, especially those in businesses such as cafés and distilleries where green credentials can attract customers.

“I can remember recycling wasn’t a big thing a long time ago, but now it is” (25-55 Inverness)

“We never heard about the environment when I was young. It’s important now” (55+ Inverness)

“I switch the tap off when I brush my teeth now” (35-55 Glasgow)

“We make sure that the children have always got bottled water. We try and use refillable when we can” (35-55 Glasgow)

- The ‘environment sceptics’ follow mandated behaviours, such as using recycling bins, without great conviction. They are wary of the costs and inconvenience associated with ‘being green’ and some questioned the point of the ‘green bandwagon’. These people tended to be older, less affluent, and some were more rural.

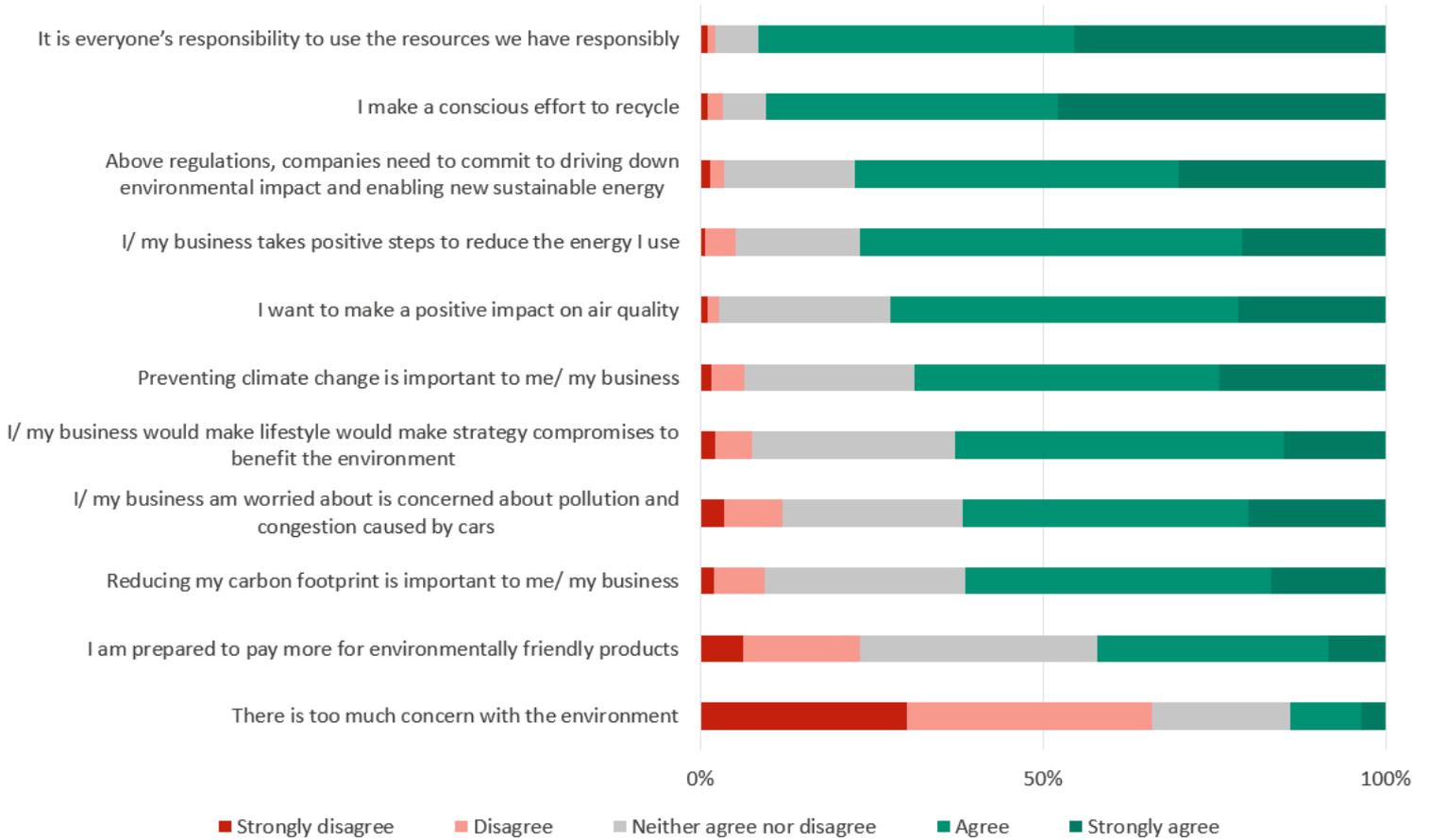
“I think the weather goes in cycles and I think a lot of companies jump on the climate change thing. I don’t really think it’s as bad as what they make out” (35-55 Glasgow)

“I think that we’re speeding up the process of global warming... A lot of that comes from manufacturing... But I’m also aware we’re between two ice ages” (SME Edinburgh)

In the customer survey, customers were asked to rate their agreement with various environmental attitudes and behaviours as shown in

Figure 16. They are displayed in rank order with the statements with the highest proportion of 'agrees' at the top. During the survey, the statements were displayed in a randomised order.

FIGURE 16: ENVIRONMENTAL ATTITUDES.

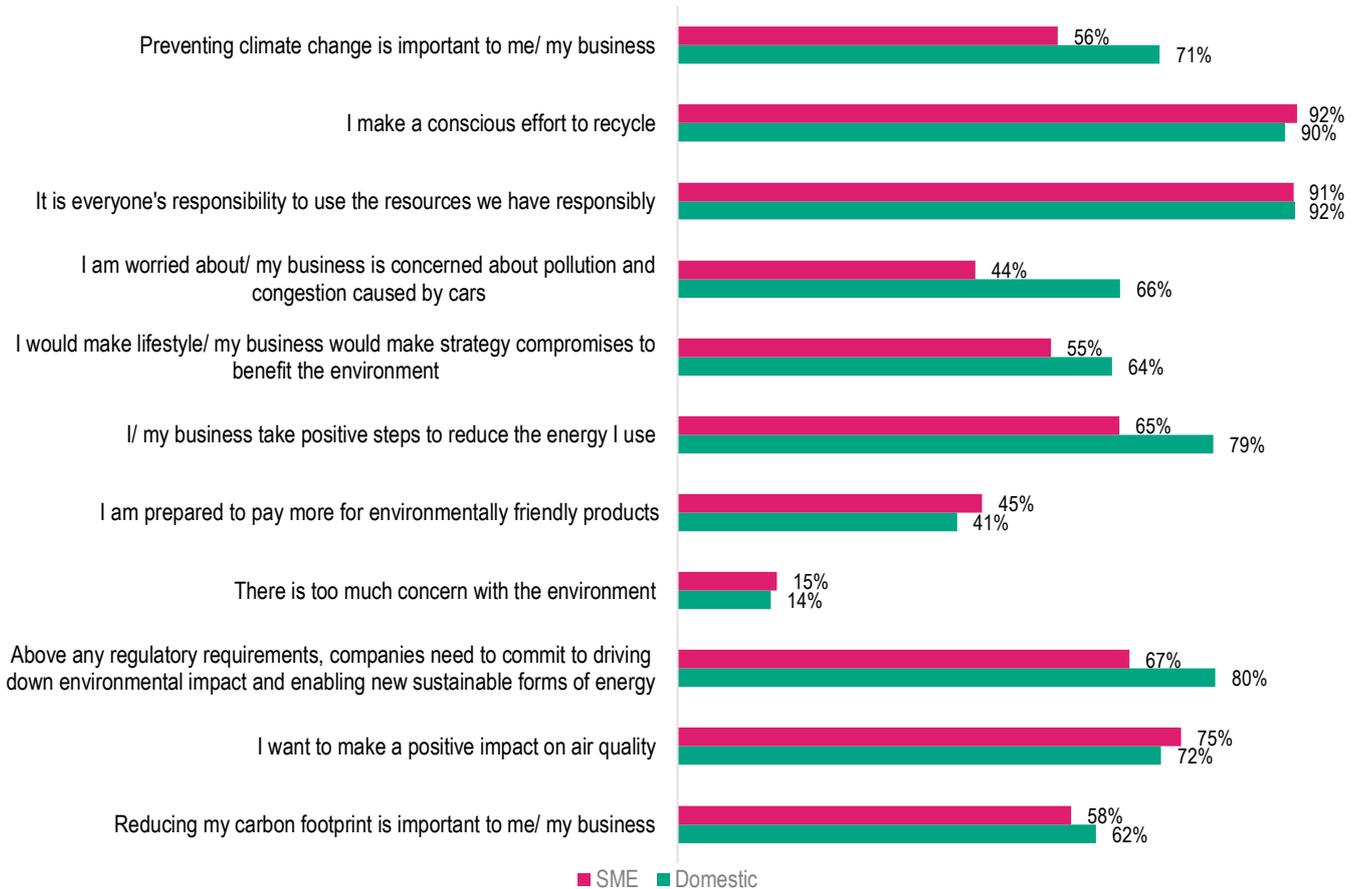


Q5b Below are some statements that describe different attitudes to life in general. Please indicate how much you agree or disagree with each of the statements on a scale from 1 to 5 where 1 means 'strongly disagree' and 5 means 'strongly agree'? Unweighted base: All (1053)

Customers were most likely to agree that everyone is responsible for our resources, and that they make a conscious effort to recycle. Companies as well as individuals were expected to take a role in reducing environmental impact if significant change can be made. However, customers were least likely to want to pay more for environmentally friendly products showing there is still some reluctance to put themselves out personal for the wider good.

There were some differences in levels of agreement between domestic customers and SMEs. Figure 17 shows the combined percentage of 'agree' and 'strongly agree' for each statement, comparing the two types of customer. The biggest difference is for concern around the pollution effect of cars, where 66% of domestic customers agree they do, compared to only 44% of SMEs.

FIGURE 17: ENVIRONMENTAL ATTITUDES BY CUSTOMER TYPE



Q5b Below are some statements that describe different attitudes to life in general. Please indicate how much you agree or disagree with each of the statements on a scale from 1 to 5 where 1 means 'strongly disagree' and 5 means 'strongly agree'? Unweighted base: All (1053)

Among domestic customers, there were some differences between age groups too. The main finding was fewer customers aged 16-25 stated they 'make a conscious effort to recycle', which could be due to the wording of the statement, and differences in the definition of the term 'conscious'. A full breakdown of the question is given in Table 13, where the responses for 'agree' and 'strongly agree' are, again, shown. There were no noticeable differences between responses for those living in rural/urban locations, or by region.

TABLE 13: ENVIRONMENTAL ATTITUDES BY AGE

Statement	Total	16-25 years old	26-35 years old	36-55 years old	56 -64 years old	65 and over
Reducing my carbon footprint is important to me/ my business	61%	60%	73%	61%	62%	56%
I want to make a positive impact on air quality	72%	71%	82%	69%	75%	66%
Over and above any regulatory requirements, companies need to be committed to driving down our environmental impact and paving the way for new sustainable forms of energy	77%	76%	87%	78%	80%	79%
There is too much concern with the environment	14%	18%	10%	13%	15%	16%
I am prepared to pay more for environmentally friendly products	42%	46%	50%	41%	40%	34%
I/ my business take positive steps to reduce the energy I use	77%	79%	83%	76%	83%	80%
I would make lifestyle/ my business would make strategy compromises to benefit the environment	63%	66%	73%	63%	64%	59%
I am worried about/ my business is concerned about pollution and congestion caused by cars	62%	79%	74%	64%	65%	57%
It is everyone's responsibility to use the resources we have responsibly	92%	89%	93%	92%	92%	91%
I make a conscious effort to recycle	90%	75%	93%	88%	94%	95%
Preventing climate change is important to me/ my business	69%	70%	80%	72%	73%	65%

8.1.6 Climate change

Climate change was acknowledged by most as an important issue. There were several spontaneous references in the discussions to recent weather incidents – the mild winter, the early spring, unusual heatwaves, and last year’s ‘Beast from the East’ storm – and the prospect of detrimental future change.

“I mean, look at the weather. It was sunny a couple of weeks ago and snowing the week after. It just doesn’t make sense” (18-25 Glasgow)

There was some anxiety about what could meaningfully be done in Scotland when the issue is global, although in the main the perceived urgency reinforced the value of any action to combat the consequences.

“I think it’s a worldwide problem and there are some developing countries that probably put more emissions up into the sky, still using a lot of coal. That’s bound to affect the atmosphere” (55+ Inverness)

“We’ve got a president of the United States of America that doesn’t believe in climate change... I think it’s terrible” (55+ Inverness)

“Scotland can do as much as we can, but if other countries are not doing the same it’s not going to make any difference” (35-55 Glasgow)

“We’ve got twelve years, apparently, before it’s not recoverable, isn’t it?” (18-25 Glasgow)

Some pointed out that businesses are likely to have more impact than customers and should lead by example, reinforcing the more general environmental attitudes measured in the customer survey.

8.1.7 Sustainability

The research participants considered sustainability in the water industry to be about balancing measures that are realistic to implement (and with low effort on their part), with protection of the environment. Among customers that participated in the online survey, approximately 3 out of 4 (73%) stated they try and save water in their day-to-day life. Customers in vulnerable circumstances were slightly more conscious of water usage, as 76% try to save water, compared to 70% for customers that are not. Those customers aged 56 and over were also more water conscious, as 80% said they try and save water.

In a broader sense, sustainability was considered to be about not over-using resources, not causing damage, and allowing natural cycles to continue so that resources can be replenished.

“It’s trying to use less of the resources that are on offer to us” (SME Edinburgh)

“It’s not about suddenly making drastic changes that people can’t sustain over a long time. It’s also about making sure the changes are realistic, and we can then continuously improve over years” (18-25 Glasgow)

The idea of living sustainably was ingrained in some of the more rural participants and also some of the younger ‘environmental advocates’. Between them, they spoke of being careful about water use and collecting grey water for watering gardens, and of using refillable water bottles and reusable coffee cups in cafés. They also expressed concerns about infrastructure repairs and capital investment projects. Sustainability is important to SMEs, too.

“We built the huge hydro dam and it broke the first week they used it. So, think of all those enormous machines that were out there to dig it all out and deconstruct it. What sort of mess was left afterwards? Was the ground replaced in a proper manner?” (55+ Inverness)

“A lot of that sort of facilitating sustainability is marketing. We look at it quite a lot in terms of what we do, but also public perception of us and other similar businesses. Our [café] customers are quite interested in sustainability – and are our products local?” (SME Edinburgh)

8.1.8 Impact on the environment

There was an appreciation that customers can have a negative impact on the environment, and customers felt that day-to-day behaviour is improving as concern grows.

There was a common understanding of the importance of not putting the wrong things down the sink or toilet, such as oil and sanitary products, although surprise at some of the examples in the information provided¹² – milk, soup and gravy – which raised questions about how to square the disposal of these liquids with the imperative to recycle plastic and metal packaging. Yet there were also lots of comments about other careless people who cause problems with waste pipes, and indignation that anyone would flush a nappy down the toilet, all of which reinforced in participants’ minds the need for more education and other nudges to encourage behaviour change.

“I think it’s important to reiterate to people what can and can’t go down the toilet and sinks and stuff because, as you said, some of the things we didn’t know” (18-25 Glasgow)

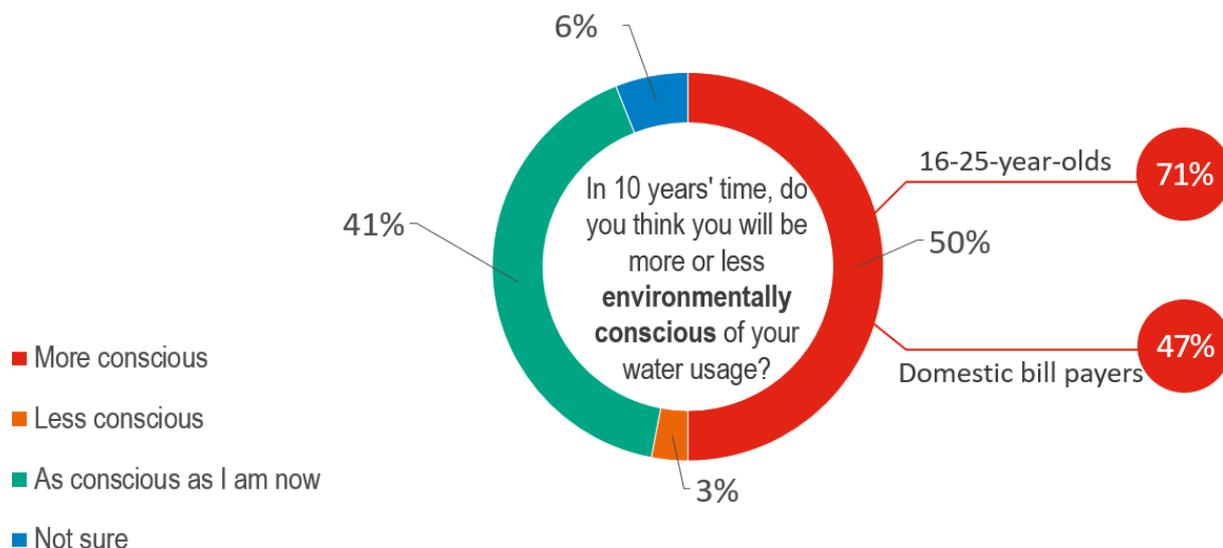
There was also a general belief that water should be used carefully, not because of scarcity but in order not to be wasteful.

The survey findings went on to show only 9% of customers thought that in 10 years’ time the water usage in their home or workplace would be greater than it is now, whereas approximately 2 in 5 (39%) thought it would be lower

¹² See appendix 10.4.1 ECP and Triad Stimuli

and the remainder (53%) believing it will be about the same as it is now. Customers aged 65+ perceive their usage to be slightly different as only 33% believe it will reduce and 64% thinking it will remain the same (see Figure 18).

FIGURE 18: EXPECTATIONS OF WATER USAGE IN 10 YEARS' TIME



Q11 In 10 years' time, do you think you will be more or less environmentally conscious of your water usage? Unweighted base: All respondents (1053)

A similar pattern is seen with customers' attitude to water usage in the future, as 50% expect themselves to become more environmentally conscious of their water usage in 10 years' time. Again, customers who are aged 65+ tend to behave slightly different to other age groups, as only 40% believe they will become more conscious, compared to 71% and 58% for customers aged 16-25 and 26-35 respectively.

71% of customers expected to see more products helping with water efficiency on the market in 20 years' time, which peaked at 85% for 26-35-year olds. Customers aged 65 and over once again scored differently to other age groups, as only 58% thought more products will be available.

There was a strong correlation between the responses for consciousness of water usage and attitudinal statements asked earlier in the questionnaire. Typically, those who thought they will become more conscious of their water usage in the future, were more likely to agree with the more 'positive' statements regarding the environment. Two examples of this are for 'reducing carbon footprint' and wanting to 'make a positive impact on air quality', where a higher percentage of customers who think they will become more conscious of their water usage, agree with these statements.

Table 14 shows the breakdown of responses, comparing those that will become more, less or as conscious of their water usage compared with currently. The green figures show a higher percentage than the average, and red show a lower percentage.

TABLE 14: ENVIRONMENTAL ATTITUDES BY FUTURE WATER USAGE EXPECTATIONS

Statement	Total	I will be more conscious	I will be less conscious	I will be as conscious as I am now
Reducing my carbon footprint is important to me/ my business	61%	73%	38%	53%
I want to make a positive impact on air quality	72%	85%	60%	62%
Over and above any regulatory requirements, companies need to be committed to driving down our environmental impact and paving the way for new sustainable forms of energy	77%	83%	50%	77%
There is too much concern with the environment	14%	11%	50%	15%
I am prepared to pay more for environmentally friendly products	42%	56%	42%	29%
I/ my business take positive steps to reduce the energy I use	77%	81%	74%	77%
I would make lifestyle/ my business would make strategy compromises to benefit the environment	63%	74%	35%	55%
I am worried about/ my business is concerned about pollution and congestion caused by cars	62%	71%	40%	55%
It is everyone's responsibility to use the resources we have responsibly	92%	93%	85%	93%
I make a conscious effort to recycle	90%	91%	85%	92%
Preventing climate change is important to me/ my business	69%	80%	52%	59%

8.1.9 Responsibility for the environment

Whilst customers believe they have a part to play, the environment is considered a shared responsibility and one where government should take the lead, co-ordinating a partnership with other bodies and businesses. Customers were shown a diagram of the water industry in Scotland¹³ and many felt the Scottish Environment Protection Agency (SEPA) is the obvious body to be involved, but also that other less familiar organisations are likely to have legitimate interests and roles to play.

“Well, probably everybody’s responsibility. Government’s responsibility, Scottish Water’s; internationally everybody’s responsibility” (SME Glasgow)

“You could probably start from government and government should roll out to each business” (25-55 Inverness)

“SEPA is the only one that could actually crack the whip and say you’ve not come up to scratch, they could impose a fine” (35-55 Glasgow)

“It’s not just down to one organisation or one person; I think it’s got to be a combined effort... Obviously, you’ve got all these other agencies like SEPA, government, Water Commission and the Citizens Advice, it really has to be a combined effort where people are networking and effectively communicating with each other” (mobility issues)

“I think our government should be the main source of knowledge of these sorts of things. I mean that’s where you should start, at the top, but then we all have a part to play” (SME Edinburgh)

“I think it has to be politicians, because unless you make it law then – Scottish Water may have the most honourable, personal approach in the world right now, but that could change tomorrow. So, I think it has to come from the politicians” (SME Glasgow)

“Scottish Water has primarily got to do their own thing, but they can put in things to help. I think we’ve all got a part to play” (mobility issues)

Even if the customer impact is modest, customer support and engagement is likely to be needed to maintain the issue as a political priority.

¹³ See appendix 10.4.1 ECP and Triad Stimuli



8.2 Scottish Water's investment

8.2.1 Supporting economic growth

Customers believe Scottish Water infrastructure should support economic growth, although not at the expense of the environment. Most participants were keen on protecting the environment, even improving it, especially in view of climate change and growing environmental concern. Some, though, worried about the likely bureaucratic costs associated with increasing environmental obligations, cynically suggesting they were creating 'jobs for the boys'.

"Jobs for the boys!... They've got to employ lots of people to do the calculations and check it all. You're looking at all this compliance, you're spending all your money complying with things and not actually building anything. It all comes at a cost" (55+ Inverness)

Some of the SMEs saw a need for a pragmatic balance in environmental measures because an increased cost burden on businesses might impact employment and tax receipts. Yet they also saw a benefit to retail and service businesses in promoting green credentials, which are becoming compelling for customers.

New housing and other buildings were considered signs of economic development, which require fresh and waste water services, so in this sense Scottish Water does have an important role in economic growth. However, this development also engendered some apprehension about disruption during construction, the increased burden on existing infrastructure, and the perceived risks to the natural environment. Development can put a strain on existing infrastructure and so mitigations such as Sustainable Draining Systems (SuDS) are important.

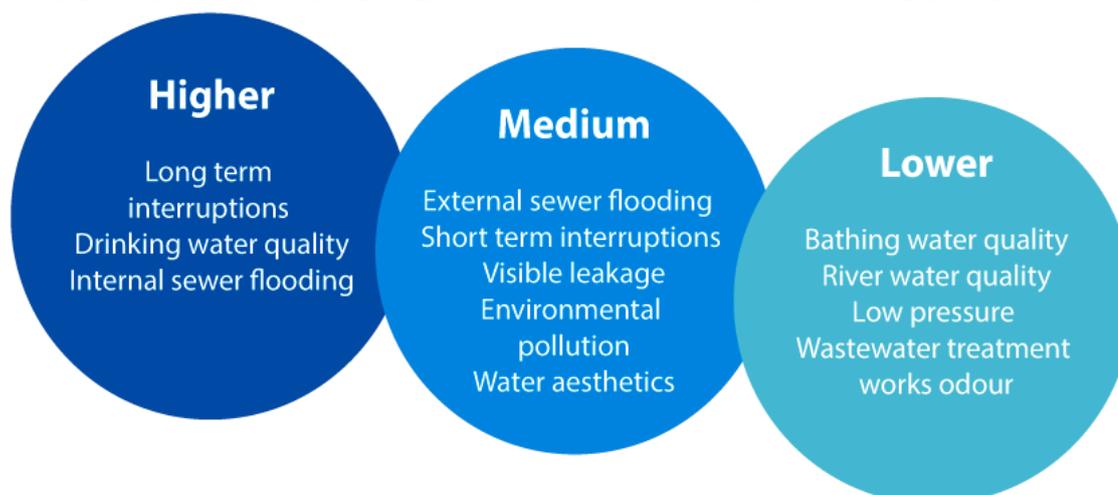
"They have to work out the flooding risk and where the water goes. They have to build things... to take away the water. When they built Asda, it was incredible the underbuilding that went on there, absolutely incredible" (55+ Inverness)

In Inverness, there has been opposition to the new sewage treatment works to the north east at Ardersier. There were also examples cited of drainage pipes not coping with new housing; and a few complaints about the blight of wind turbines. There can be resistance to change in beautiful rural areas.

8.2.2 Investment priorities

As part of the Strategic Review of Charges for period 2021-27 (SRC21), Scottish Water is undertaking an extensive Customer Engagement Programme (CEP). Phase One of this programme was focused on understanding overall priorities, carried out through developing an understanding of issues that had the greatest impact on customers with a focus on the delivery of water and waste water services. The output from Phase One, showing the issues which had a higher, medium and lower impact on customers is shown below. This is based on customers' views, but also weighted to reflect how often these occur.

FIGURE 19: INVESTMENT PRIORITIES IDENTIFIED BY SCOTTISH WATER THROUGH PREVIOUS CUSTOMER ENGAGEMENT



The investment priorities for Scottish Water previously identified were shown to respondents in these groupings (high to low priority) to see whether they agreed with this prioritisation; they were broadly endorsed by the participants in this research.

“Ultimately their role is to serve the customer and they need to have a lack of interruptions, and quality, which is obviously required, and the sewer flooding goes hand in hand with that. So, I don’t think I would disagree with any of those” (rural)

“Well, I suppose, they are all priorities... I think drinking water quality does need to be kept high... Surely if we have less leakage then the long-term interruptions would not happen?” (SME Glasgow)

“I actually find it quite hard to prioritise them, I think they are all important... I think if I would answer that accurately, I think I’d probably want to see data or percentages beside each issue” (SME Glasgow)

The priorities tended to be considered in terms of their immediate personal impact. However, on fuller reflection, there were some nuanced qualifications.

“It’s one of the hot topics right now with plastic in the ocean and all that kind of stuff. So, I think you are a brave man to say actually that is a low priority for Scottish Water. I’d be on the phone going mental at you saying did you not see Blue Planet?” (SME Glasgow)

Several of the issues seem to be linked: water quality and pollution; interruptions and leakage; river/bathing water quality (an environmental indicator) and water quality. Some participants called for environment/rivers, recycling and education to be included alongside the medium or higher priorities because these issues serve as benevolent cues that connect with the provision of clean water.

“My question would be more do they tie into each other? So, your low water pressure, is that tied in any way, shape or form to the leakage? I don’t know” (SME Glasgow)

“I don’t agree with the rivers and the oceans being low priority, simply because we live on an island, a lot of fish go into our diets and people eat a lot of fish. If the water is polluted, the seas and the rivers are polluted, then you’re going to be polluted because it’s going to be in the food chain. I think that should be higher up” (mobility issues)

“River water quality I think is really important for wildlife and to me that is something that indicates the health of the whole country in terms of the environment. Bathing water quality is the same thing” (SME Edinburgh)

“There was a big water leak along a main road... They had to turn off the water. It affected the children going to the toilet and washing their hands, so they had to close the school. You don’t think of these things until something like that happens” (35-55 Glasgow)

Some (especially the SMEs) even suggested reframing the hierarchy: instead of higher to lower – where ‘lower’ suggests it is not a priority at all – the range could be shorter-term to longer-term issues, or ongoing versus new initiatives, maintaining versus creating.

“To me, it seems weird to say higher, medium and lower. I would have thought you would have had short, medium and long” (SME Glasgow)

Nevertheless, the prioritisation was generally towards personal impact, and in favour of protection before enhancement.

“I think they should be prioritising their services provision over the duty to the environment, but as long as the service provision doesn’t adversely impact, they’re fine” (35-55 Glasgow)

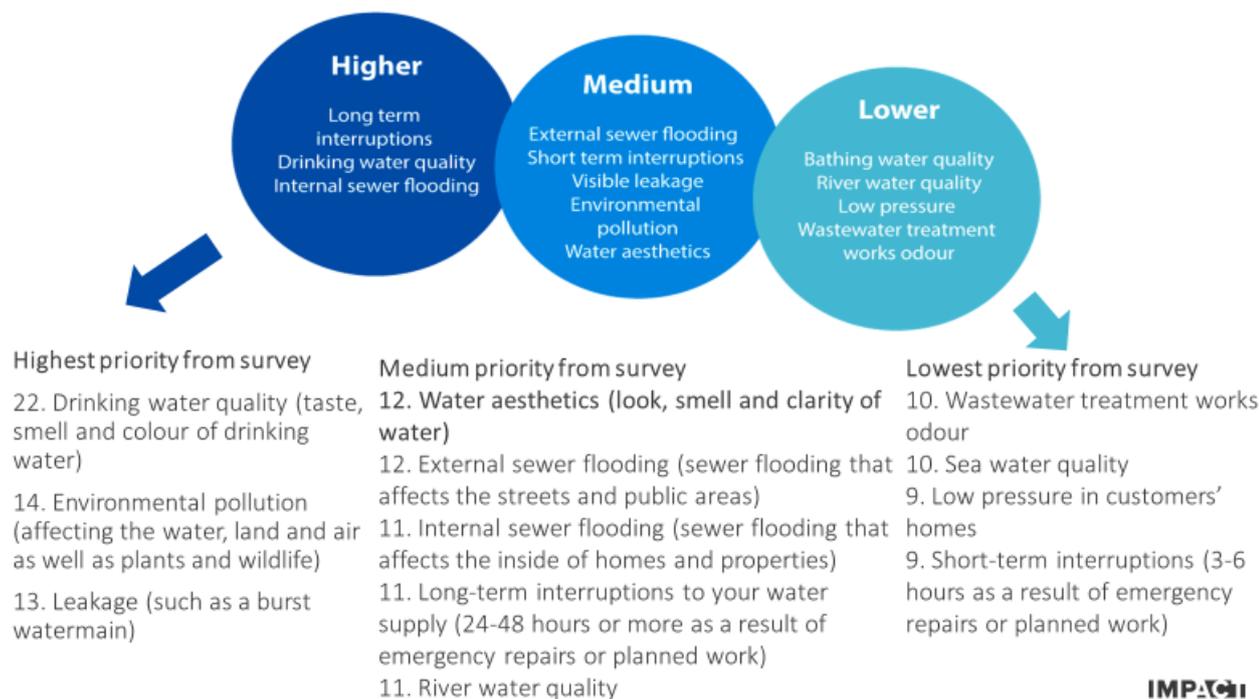
“If you were asking someone who lived next to a water treatment works you would probably get different answers” (35-55 Glasgow)

“In my experience in business, any sort of flooding internally has always been the fault of either the business or the adjacent businesses and it is from putting stuff down the drains that shouldn’t go down. Like fat and so on. So, I don’t know if that is Scottish Water’s problem to deal with so much? Unless the problem is further back” (SME Edinburgh)

When this list of priorities was tested quantitatively, the areas were listed separately, without the high to low categories, and customers were asked to allocate a portion of 100 coins to each, to represent the investment they felt should be given to each. Customers were not shown any detail about each area, simply the headings presented.

Therefore, the results are not directly comparable with either the original prioritisation from previous engagement, or the results from the ECP. The comparison is made here for indicative purposes only. Survey responses were ordered by the average points allocated to each area. The order of priorities was a little different, with drinking water quality by far the most important.

FIGURE 20: INVESTMENT PRIORITIES FROM SURVEY RESULTS



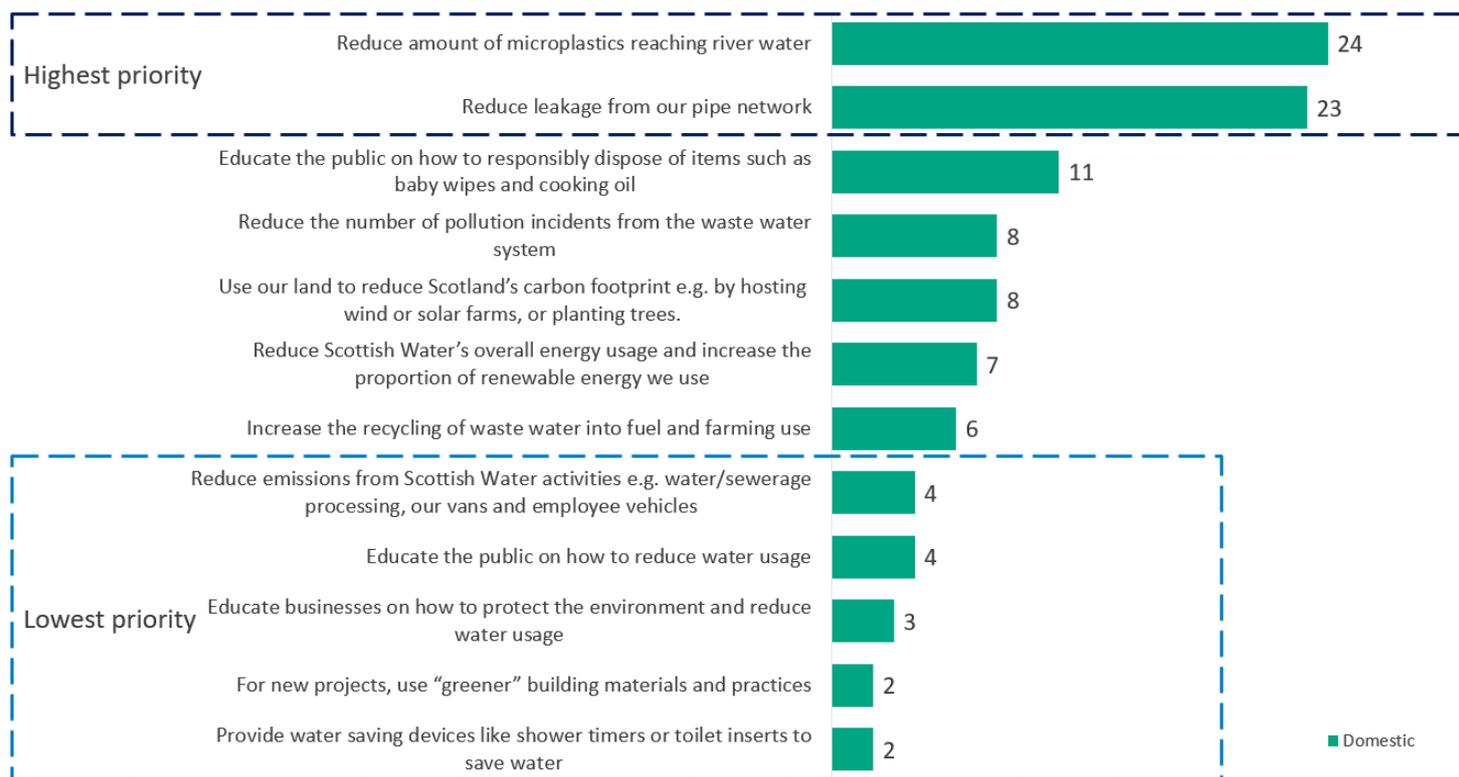
P1. Scottish Water have a number of areas in which they could choose to invest their money in the next few years, but they want to make sure that customers like you have a say in how that money is spent. Imagine that you have 100 coins to allocate to each of the areas listed below. You must spend all the money, but you do not need to spend money on all the categories if you do not wish to. Please look carefully at the areas below and based only on your opinion or perceptions, allocate some/all of your coins to the categories where more coins means you would want more investment in this area, and fewer coins would mean little/no investment in this area. Unweighted base all (1053).

8.2.3 Environmental investment priorities (Max Diff exercise)

Figure 21 below shows the entire list of priorities presented during the Max Diff exercise, and the results are represented as indices totalling 100. They are ranked in order of importance at an overall level, and not just the overall indices, but the relative differences are important to understand customer priorities. The priority area wording was shown to customers as they are presented in the graphs below, with no further supporting or education materials. Therefore, they are not directly comparable with rankings that emerged from the qualitative research where they saw showcards on most of the areas and had opportunities to discuss them and ask questions.

When asked specifically about the environment, customers had two main priorities. These were 'reducing the amount of microplastics reaching river water' and 'reducing leakage from Scottish Water's pipe network'.

FIGURE 21: ENVIRONMENTAL PRIORITIES TOTAL LEVEL



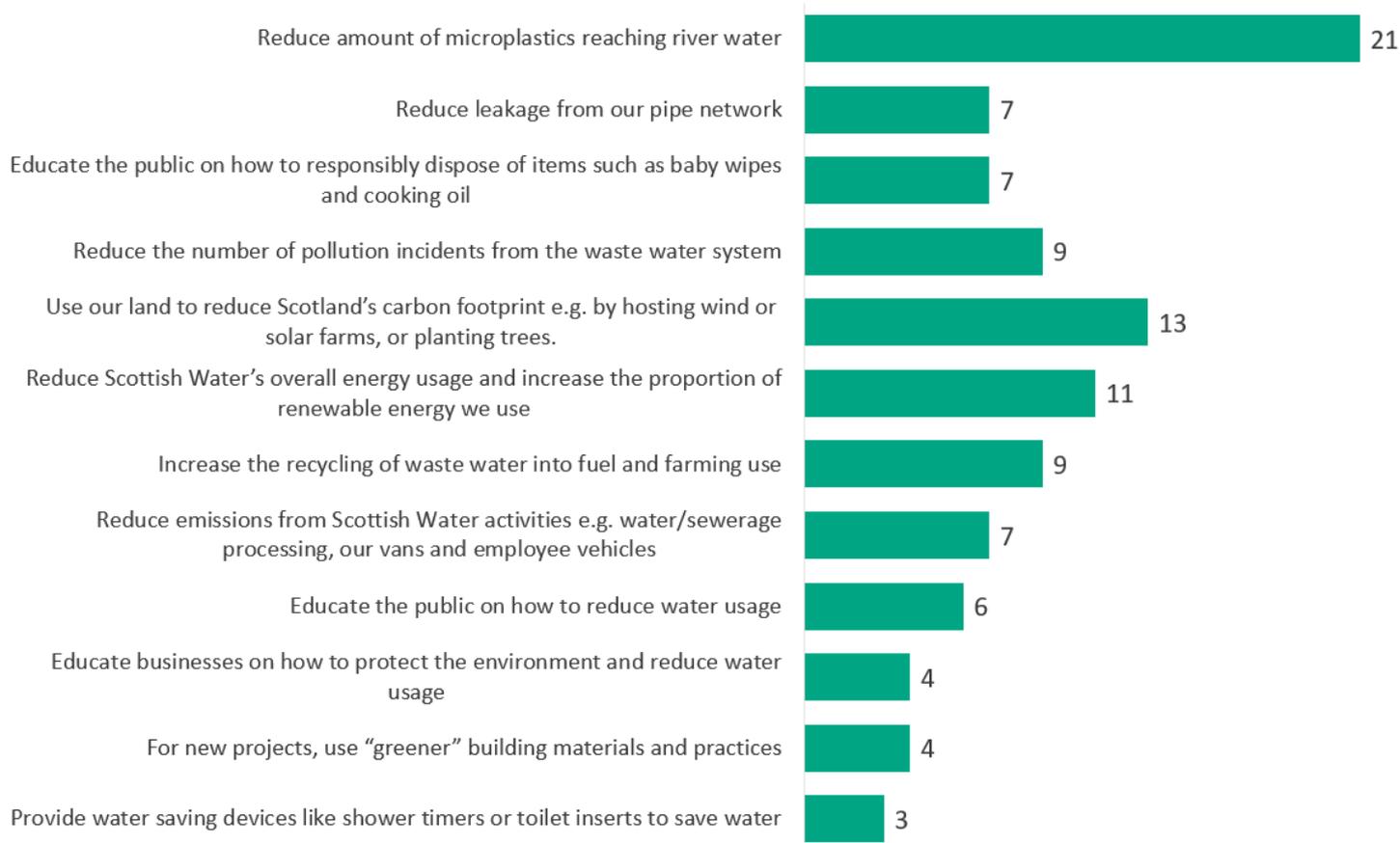
Max Diff exercise. Which of the following is most and least important for Scottish Water to invest in...? Unweighted base all domestic (856).

Given the recent media attention internationally, it is understandable that reducing the amount of plastics that reach the river has emerged as a priority. Reducing leakage is equally important, and given customers are generally unaware of the current levels of leakage, the rating may have been even higher if customers had received information on leakage before making their choices as this became an emotive topic during the focus groups.

Educating customers on how to responsibly dispose of items such as baby wipes and cooking oil was third on the list of priorities, which also backs up the sentiment of customers during the focus groups, of not knowing how to properly do this.

Once again, there were some differences in how different age groups prioritised these investment areas, the most pronounced being in those aged under 25. These figures should be interpreted as indicative as the base of respondents is slightly low (48), but the rank order shows how the priorities differ. The full breakdown is shown below in Figure 22.

FIGURE 22: ENVIRONMENTAL PRIORITIES AMONGST 16-25 YEAR OLDS

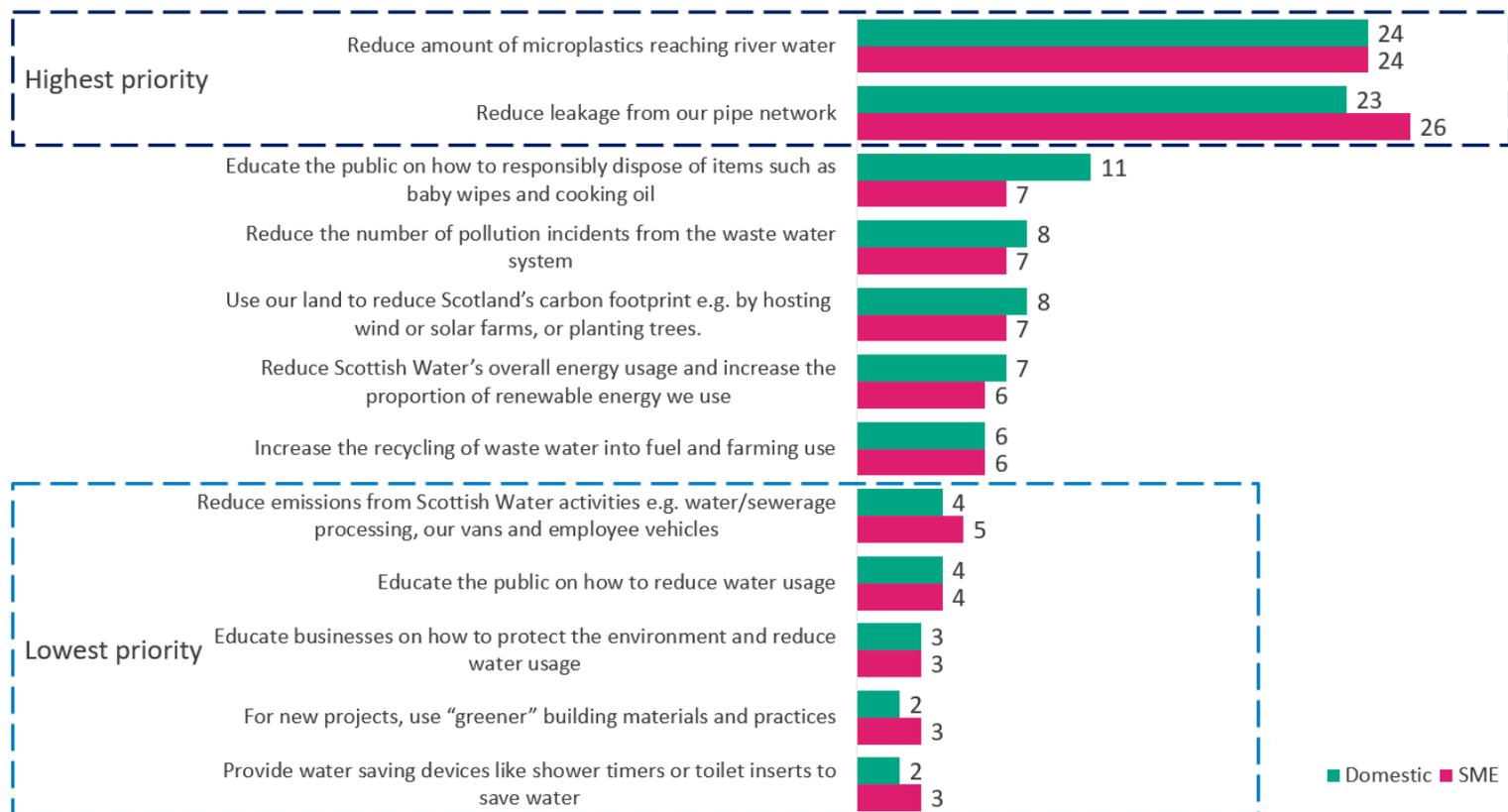


Max Diff exercise. Which of the following is most and least important for Scottish Water to invest in...? Unweighted base all domestic under 25 (48).

Reducing microplastics was still the highest priority, but far less importance was put on reducing leakage. Instead, younger customers chose to prioritise using land to reduce Scottish Water's carbon footprint along with reducing the overall energy of Scottish Water increasing the proportion of renewable energy use.

SMEs did not prioritise investment too differently to domestic customers, however, they placed slightly more importance on reducing leakage from the pipe network than other customers. The breakdown is given in Figure 23 below, with a comparison to the domestic responses.

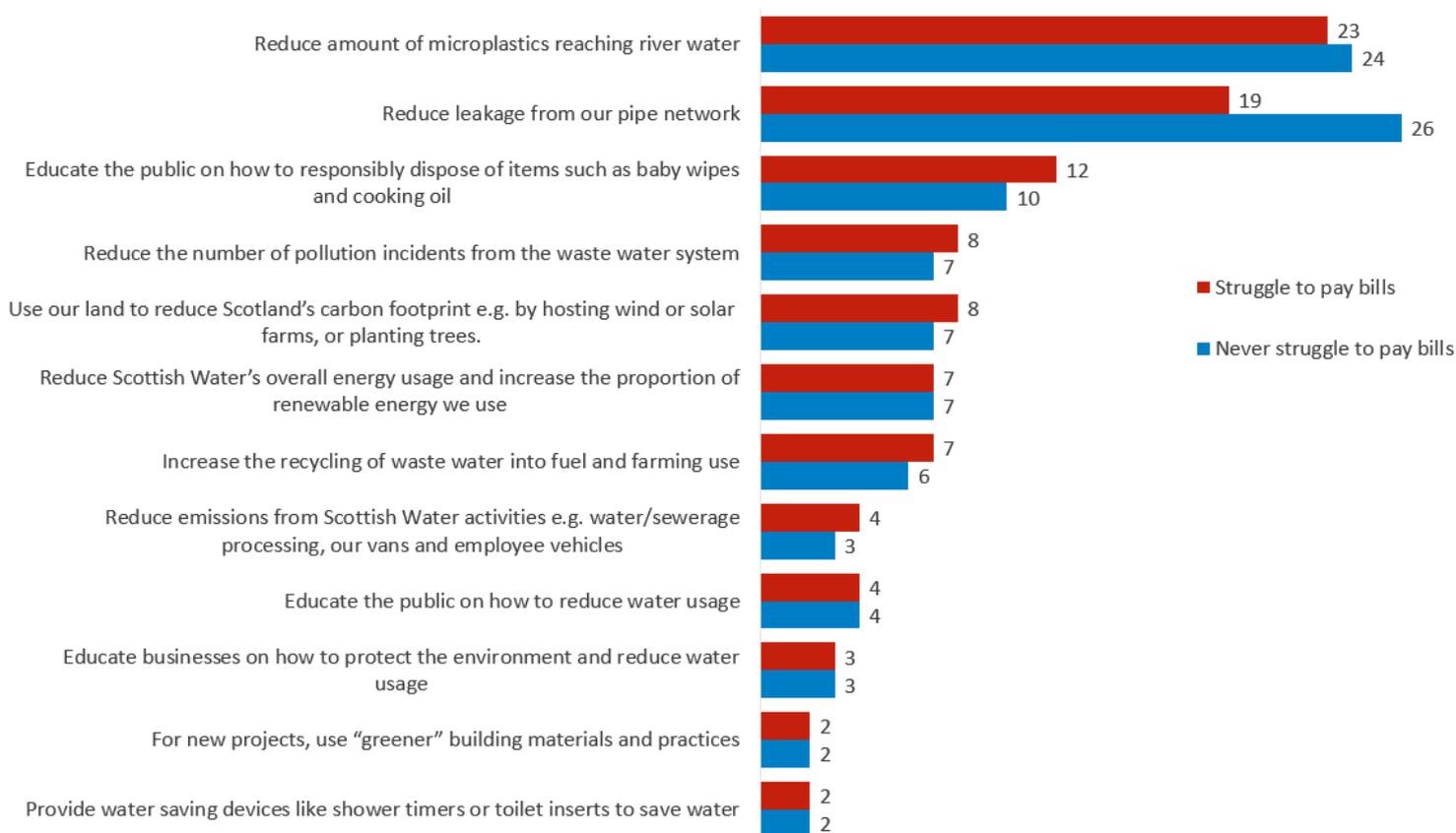
FIGURE 23: ENVIRONMENTAL PRIORITIES BY DOMESTIC AND SME CUSTOMERS



Max Diff exercise. Which of the following is most and least important for Scottish Water to invest in...? Unweighted base all domestic (856), all SME (197).

There were some differences among domestic customers according to whether they struggled to pay bills. Those who struggled to pay bills placed considerably less importance on reducing leakage from the network, than those who never struggled to pay bills. Beyond this, the order of priorities stayed the same. The breakdown is given in Figure 24 below.

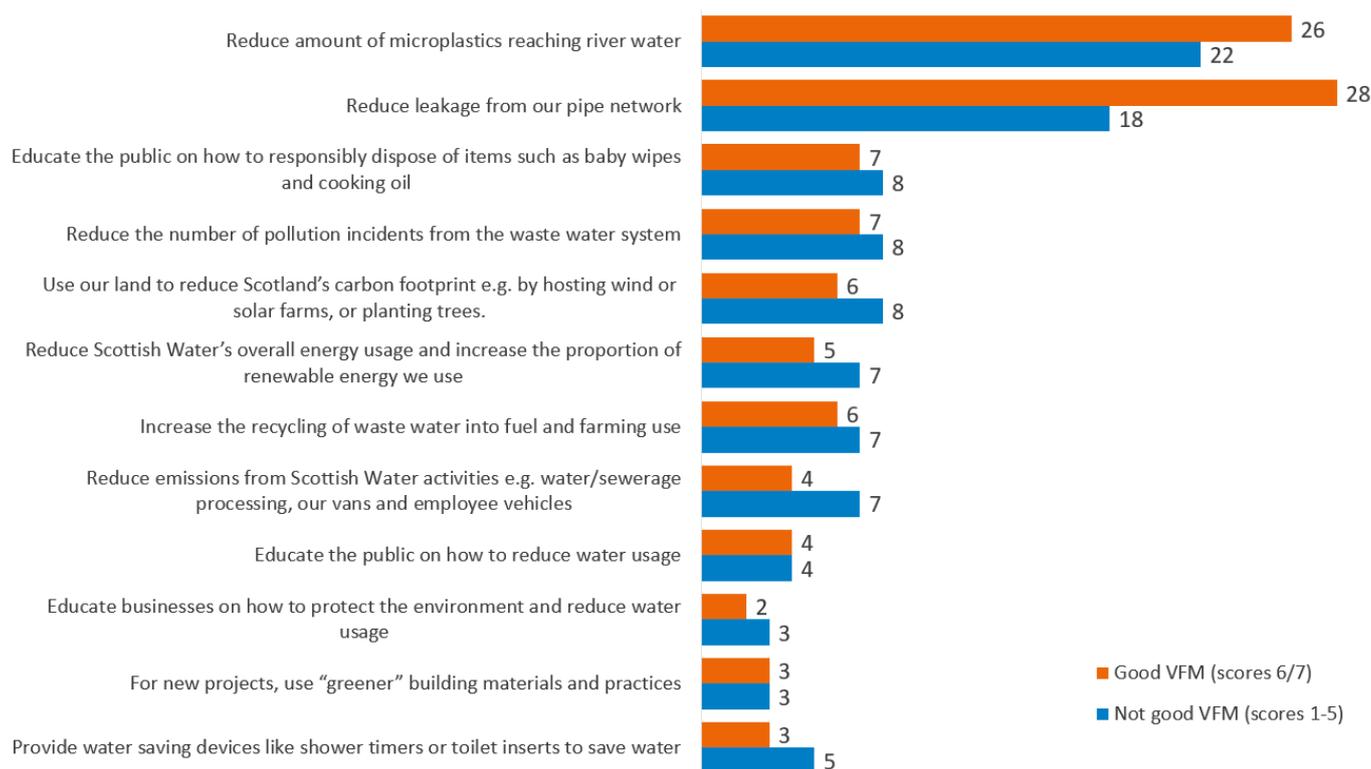
FIGURE 24: ENVIRONMENTAL PRIORITIES BY ABILITY TO PAY WATER BILLS



Max Diff exercise. Which of the following is most and least important for Scottish Water to invest in...? Unweighted base Domestic struggle to pay bills (309), domestic never struggle to pay bills (521).

Substantial differences were found when looking at domestic customers according to their value for money (VFM) rating. Differences were found between the two groups (good/not good VFM) and according to the ranking of priorities. Those who rated Scottish Water as good value for money placed higher importance for reducing microplastics and reducing leakage, than those who thought Scottish Water was not good value for money. Furthermore, those who thought Scottish Water was poor value for money rated the importance of providing water saving devices as marginally more important than using green building materials, educating businesses and educating the public on reducing usage. Also, those rating Scottish Water as good value for money saw educating business as the least important priority, as is shown in the full breakdown below.

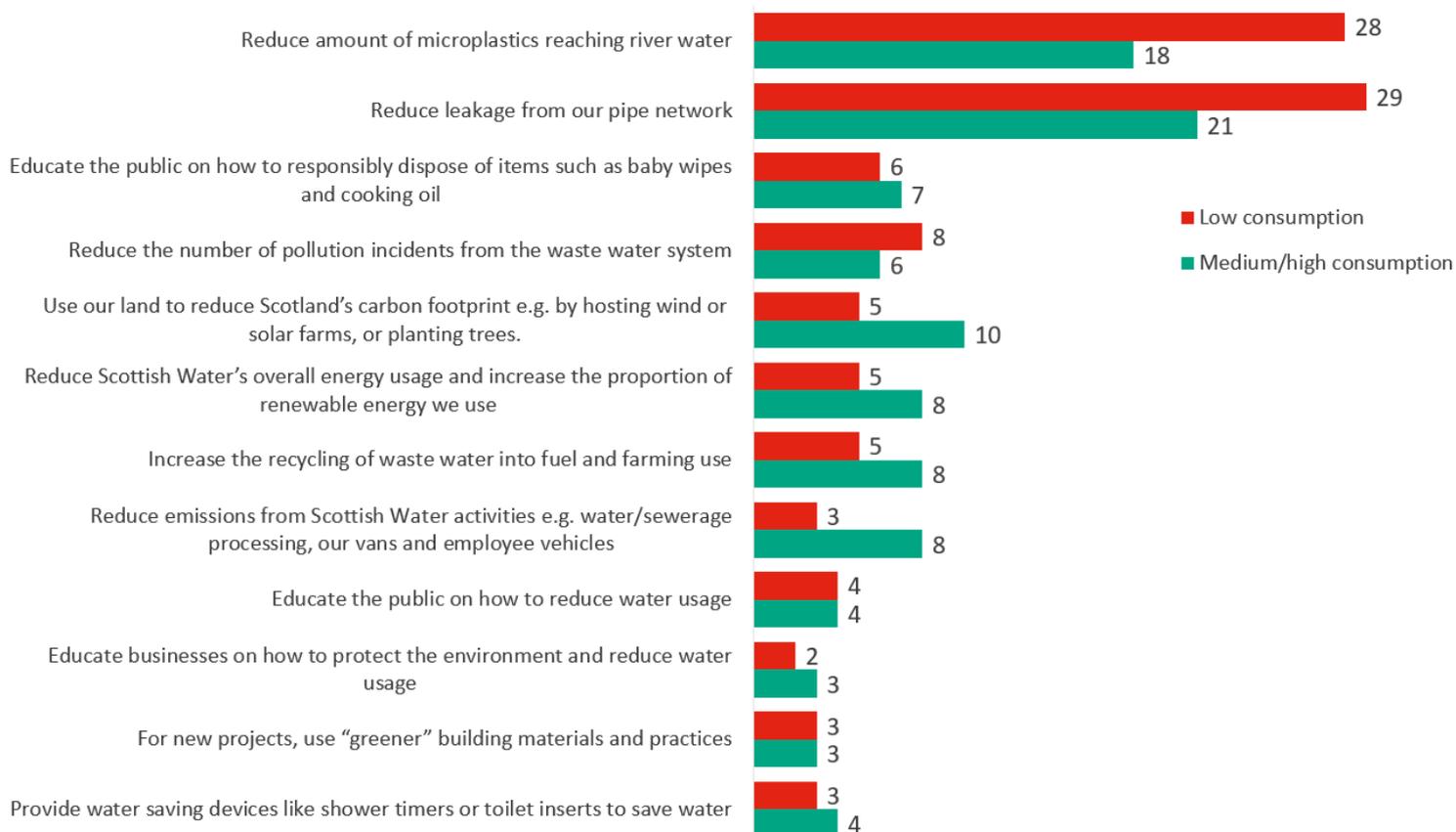
FIGURE 25: ENVIRONMENTAL PRIORITIES BY DOMESTIC AND SME CUSTOMERS



Max Diff exercise. Which of the following is most and least important for Scottish Water to invest in...? Unweighted base SMES good value for money (125), SMEs not good value for money 1-5 (51).

There was more of a pronounced difference, however, when categorising the SMEs by water consumption. Those SMEs that used low amounts of water placed a very high importance on both reducing the amount of microplastics and reducing leakage. While those investment areas were still the most important to SMEs with medium or high consumption levels, they were relatively less important than for those with low water consumption levels, as their priorities were spread across more areas, including using Scottish Water land to reduce carbon footprint. The full breakdown and comparison between consumption levels is shown below.

FIGURE 26: ENVIRONMENTAL PRIORITIES BY SME CONSUMPTION LEVELS



Max Diff exercise. Which of the following is most and least important for Scottish Water to invest in...? Unweighted base SMES low water usage (120), SMEs medium/high water consumption (63).

8.2.4 Paying for environmental measures

Having been immersed in the issues, there was some customer acceptance of paying more to help the environment, but only of small sums. The figures proffered were an extra £1 per week, or up to £10 per month or £100 per year – amounts qualified as being modest indicators of paying just a little bit extra. These participants would like the premium to be attached to a specific environmental project with tangible outcomes, and perhaps apply for a limited period of just a few years.

“I said 10%, but on the condition that this is purely put across to improve and, in the future, will reduce because it will have improved the system... more efficient, and then that cost comes down” (18-25 Glasgow)

“If extra money is needed, they could tell us what for” (25-35 Inverness)

“I think if you were guaranteed that their service would improve overall, and that you were given some signpost as to what they were going to spend it on, if they were going to spend it on something that wouldn't impact on you directly, I would be less inclined to pay. But if we're talking about the pressure of the water to my house would improve greatly, yes I would probably pay” (55+ Inverness)

One SME (a café owner) suggested having a 'green tariff' for his water, which he would use as a marketing point to his customers to help make the increased financial burden more manageable.

“Everyone wants to keep their costs down, but I think as long as they’re not too massive profits... I think charging businesses a little bit to help would seem okay, and maybe some businesses need more than others” (SME Glasgow)

“With the money that they are getting from us already, they’re doing a lot more behind the scenes than I knew about, or we seemed to know about, so how much more would they require? That’s not a question that we could really answer but just, in general, people will always try and resist an increase in bills, naturally” (rural)

However, other customers, including several SMEs, remained resistant to the prospect of increased bills. They felt reluctant to pay for measures they believed should be undertaken anyway and which ought to be funded through efficiencies elsewhere.

“This should be included in what we already pay for our water rates” (55+ Inverness)

“If there was no way that they could implement any of that stuff... then yes. But also, people in really low-income households... no, we can’t expect them to pay anything else” (18-25 Glasgow)

Customers felt that the Scottish Government could fund or at least subsidise the environmental initiatives, or perhaps the burden should be placed on big business, especially those who are polluters.

The larger SMEs pointed out that they pay hefty sums already, but also suggested an environmental premium would be more acceptable in the years when business is good. Another SME felt it would be preferable to have the discretion to budget to make a direct difference himself in his business – spending on water bills would curtail his own environmental measures.

“It’s difficult because you have, sometimes, good years and bad years. A couple of years ago we had a bad year where we lost money... I suppose at that point I would have said no to paying more money and helping the environment. Now, yes... I probably would be prepared to pay a bit more. I think it’s definitely dependent on if the business is profitable or not” (SME Edinburgh)

For many, the discussion of environmental funding highlighted the disconnect between water consumption and bills. Although most were aware that customers pay for their water service alongside their council tax, a few described it as free of charge. Several customers commented that the disconnect does not help attach a sense of value to water and waste services, and some cited stories of people leaving taps running. Some suggested it would be easier to change behaviour if people were more aware of their current usage. However, there was resistance to the spontaneous suggestion of water metering, especially among older and less affluent participants.

“I think if we were made more aware of what we actually pay for it every year then people would make more effort to use less or waste less and be a bit more careful with what we’re doing” (25-35 Inverness)

“People don’t like the idea of water meters but unless people can see what they’re paying and paying for what they use, it’s hard to quantify a figure for them” (35-55 Glasgow)

“You’re more likely to be careful with water if you knew how much you were using... There’s a cost to treatment of water, the energy cost, the chemical cost... That needs to be explained” (35-55 Glasgow)

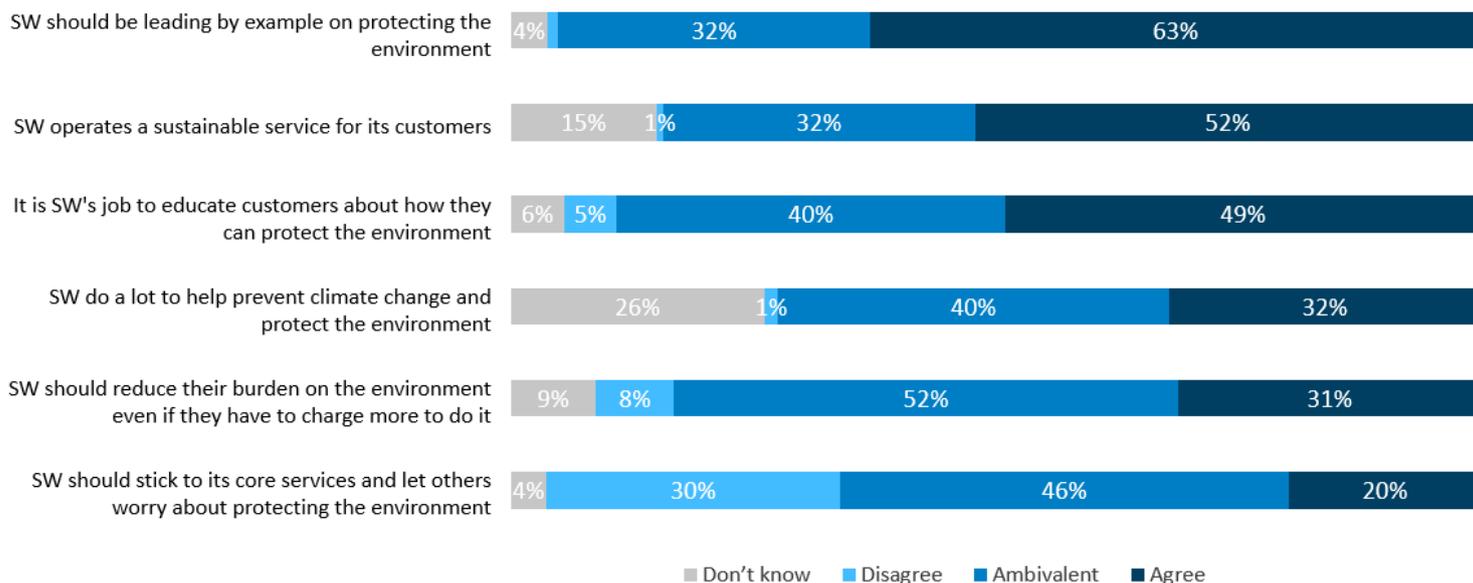
“Well, we’ve already had the 5p bag charge. Stuff like that I think is good. That’s enforcing us to do certain things... There are little changes and little incentives, and almost mini-punishment things” (18-25 Glasgow)

When asked whether they believe Scottish Water should be leading by example on protecting the environment, almost 2/3 customers said they should. This sentiment was echoed during the focus groups, where the customers were looking for all big businesses to take the first step and then for themselves to follow suit. Customers were also positive about Scottish Water’s sustainability, over half (52%) believed they offer a sustainable service and just under half (49%) believed it to be the role of Scottish Water to educate customers on how they protect the environment.

This marries up with the results of the prioritisation exercise, where educating customers on suitable disposal of items came out as the third highest investment priority.

Only 32% of customers agree that Scottish Water do a lot to help climate change and protect the environment, but interestingly, 26% of customers answered that they ‘Don’t know’. There was a general feeling during the focus groups that Scottish Water need to ‘shout about’ the work they do in this area a little more, and these results support this. 31% of customers agreed that Scottish Water should reduce their burden on the environment, even if they have to charge more to do it, leaving the impression that customers would be less willing to pay any extra in their bills. Only 20% of customers believed Scottish Water should let others worry about the environment, with 30% disagreeing, showing that customers do believe Scottish Water have a role to play. The full breakdowns of the agreement statements are given in Figure 27.

FIGURE 27: CUSTOMER PERCEPTIONS OF SCOTTISH WATER RESPONSIBILITIES



Q7_X- To what extent do you agree or disagree with the following statements? Unweighted base: All respondents (1053)



8.3 Scottish Water's role

8.3.1 Enhancing the environment

In a preparatory task, research participants were asked to consider what Scottish Water could do to enhance the environment instead of just protecting it. They responded with several suggestions, which reflect both local concerns and the themes reviewed in the course of the research. Their suggestions clustered under fresh water, waste water and the environment.

Improvement suggestions related to fresh water:

- Maintain pipes to prevent leaks
- Encourage recycling of water
- Wider use of cistern package to reduce water use

Improvement suggestions related to waste water:

- Education about waste
- Improve drainage to avoid flooding
- Larger sewers to cope with increasing rainfall
- Engage with farmers to prevent water contamination
- Better septic tanks, alarmed when full to reduce discharge
- Encourage businesses to remove harmful chemicals, and investigate impact of household cleaning products

Improvement suggestions related to the environment:

- Instigate a strategic environmental assessment
- Education about the environment, especially for children
- Collaborate with planning on new projects
- Minimise environmental impact of operations
- Use electric vehicles
- Plant more trees to enhance the environment – they give oxygen, store carbon, stabilise soil, and are beneficial for wildlife
- Provide safe areas for nature
- Build major hydro scheme and create jobs (Inverness)

8.3.2 The policy context

Policies such as SEPA's One Planet Prosperity regulatory strategy and Scotland's Climate Change Plan, as well as Scottish Water's obligations, are largely unknown. Nevertheless, customers found it unsurprising that these policies exist because they are in tune with widely held environmental concerns.

Some welcomed attention being paid to encouraging business to play its part¹⁴ but emphasised that the measures must be feasible.

"It's quite difficult, in some rural areas, to achieve some of the environmental measures the Scottish Government hope" (55+ Inverness)

"Government need to set the policies that can particularly support businesses who potentially don't want to invest in that, then that's clearly the right thing to do" (rural)

"Having worked for a Government agency before, they put all these strategies in and then you've got to work out how to make them work. So, you have to get people to sign up to do it, and then check on it" (55+ Inverness)

In Inverness, for example, there was some scepticism about electric vehicles – they were described as expensive, their batteries were criticised for not being environmentally friendly, and there was some concern about a lack of charging points.

"I can't see electric vehicles working up this end of the world... you'd run out of charge twenty miles from home or whatever" (25-55 Inverness)

"My partner, he's a mechanic and he thinks that the battery's lifespan will only last five, ten years and then it makes so much pollution to make another battery, and then you have to pay that extra money for that new battery for the car" (25-55 Inverness)

"I don't like electric vehicles because I believe they're actually creating more emissions to create the batteries" (35-55 Glasgow)

Younger people, in particular, pointed out that their generation was more attuned to environmental issues and the impact that customer choices can have on businesses.

"I think that right now, businesses, especially the ones that want to appeal to our demographic... they're really aware that they need to make changes in order to still be competitive in their industry. Because if they're not, we'll just be like, I'm not going to buy this stuff" (18-25 Glasgow)

"If they made things that they could actually pass on and sell and make money for the company. But also make money for the government to put back in as a recycling effect" (mobility issues)

8.3.3 Customer views of environmental initiatives

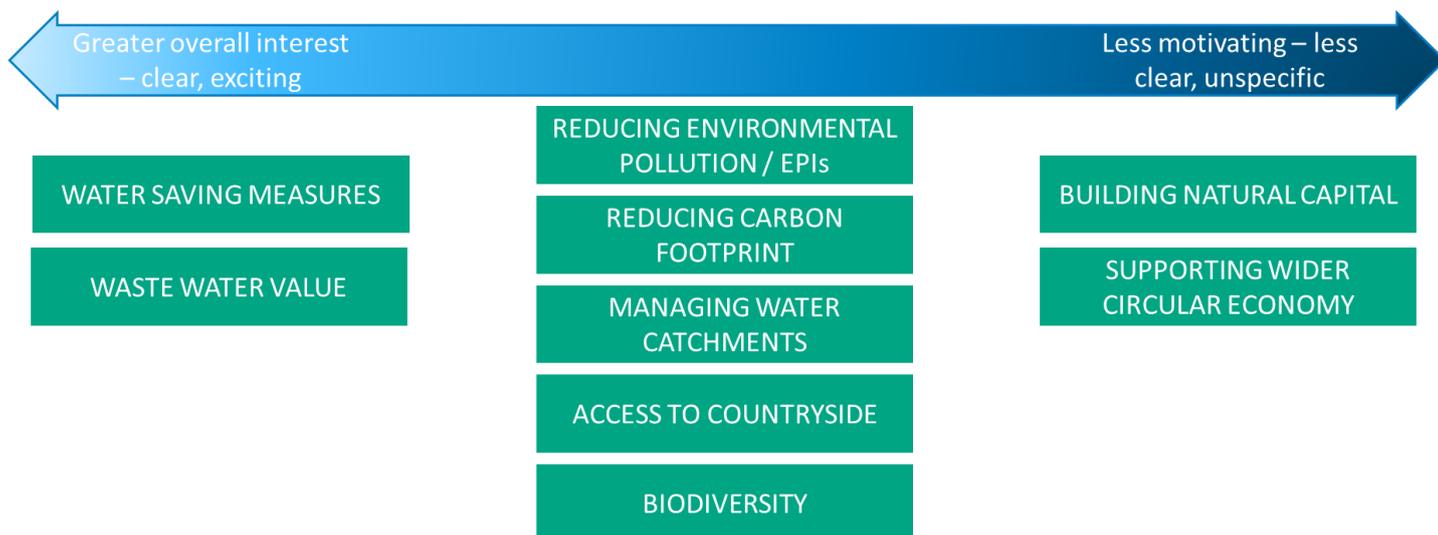
Several environment-related initiatives were presented to customers for consideration.

Most attracted interest and were perceived as worthwhile because they add value to the environment in various ways. A couple stood out because they captured the imagination. The initiatives about Water Saving Measures and Waste Water Value relate directly to fresh and waste water and were considered clear and compelling. On the other

¹⁴ SEPA's One Planet Prosperity regulatory strategy includes ways to achieve sustainable economic growth, improving businesses' profitability and long-term viability

hand, Building Natural Capital and Supporting Wider Circular Economy failed to resonate because they contain concepts that are not yet familiar.

FIGURE 28: INTEREST IN ENVIRONMENTAL INITIATIVES PRESENTED.



The initiatives as presented are contained in the appendix¹⁵.

Water Saving Measures

The simplicity of the water saving pack resonated because it fits with the maxim not to waste water. Several people expressed interest in getting a device, although no-one was aware that the campaign had been running.

“The water saving pack, did you have to apply for that, or do they send them out?” (35-55 Glasgow)

“It’s a great idea, but I can honestly assure you... I’ve never seen that. I’ve never had any information about it... It would probably go down well if it was explained to people that this would save water and it’s going to save the water rates and all the rest of it” (mobility issues)

It was considered a simple idea that provides an easy way for almost anyone to make a difference to the environment. More knowledgeable customers compared it with newer dual flush toilets, and a few compared it with using a simple brick.

“It’s such a simple thing. And the simplest things usually work best. Because that’s something that you don’t need to think about really” (18-25 Glasgow)

“If you’ve got ten thousand people and they all started to save even twenty litres a day each, its lot of water to be saved in a week” (mobility issues)

“Every little thing helps, doesn’t it?” (18-25 Glasgow)

Waste Water Value

This was one of the more complex initiatives presented, but the powerful visual evidence of the before-and-after images of the restored Broken Cross landscape impressed participants – it is tangible and understandable. This, and

¹⁵ See appendix 10.4.1 ECP and Triad Stimuli

the ideas about fertiliser and fuel, captured participants' imaginations, introducing benefits from waste water that were surprising and visceral.

"It's a great thing. Any wastage at all that can be reused will help the environment. You don't want to use all your natural resources up and just discard them because you've got to think of the future. You've got to be thinking renewable all the time" (mobility issues)

"If they're the main company and they're responsible for taking our waste water away then absolutely, what else would you be doing with it?" (35-55 Glasgow)

"Considering when I was a child and I used to bathe in some of the seas around here, the sewage went into the Moray Firth. So, this is a huge improvement on what it was years ago" (55+ Inverness)

"The regeneration of land is a great one, people love that... It's basically tidying up after somebody else. It's a feel-good factor isn't it, you know?" (SME Edinburgh)

"They should be talking more about this shouldn't they?" (18-25 Glasgow)

Some participants also picked out the impressively small figure of a mere 0.3% of waste going to landfill. All these ideas exemplify the virtuous cycle of sustainability.

"It's quite impressive that it's only zero point three percent that goes into landfill. So, that's quite good really" (25-55 Inverness)

Some participants (notably the SMEs) wondered whether this presented an opportunity to generate income that could offset the costs of other natural or social initiatives.

"If it's not costing too much for them to do and they're making money from the fertiliser and the fuel pellets then that seems like a good thing for them to do, socially" (SME Glasgow)

"As a business, maybe they should be selling it... There's a profit to be made from that, that could be put back into the company" (SME Glasgow)

Reducing Environmental Pollution / EPIs

Like the Water Saving Measures, this too seemed a simple and effective way of making a difference to the environment, although in this case by Scottish Water rather than directly by customers.

"It's a pretty basic measure, but it's effective" (18-25 Glasgow)

A few participants had seen similar barriers in place rather like the illustration and most felt it was good to know that such things are in place, even if they seemed a little remote and unexciting. On further consideration, participants pointed out that this was an example of Scottish Water abiding by the same standards expected of customers in terms of preventing blockages in waterways; it is consistent with information about what people should not put down sinks and toilets. Furthermore, it is about preventing harm in the first place, rather than trying to fix problems after they have happened – and this led to some discussions about education and penalties for bad behaviour.

"Penalties... It causes hassle to everybody else, other business owners around them, plus Scottish Water or people that have to come out and unplug and clean the pipes" (SME Glasgow)

"The only way of really persuading people is knowledge, you know, finding a way of explaining to people the consequences of them flushing sanitary towels or for pouring fat down the sink" (SME Edinburgh)

There was a positive reaction to the fact that Environmental Pollution Incident (EPI) numbers are improving, and this appeared to be evidence that public campaigns do work.

“I’ve never really thought about blocks or spillages or leakages or anything as an environmental pollution. I feel like that’s quite a powerful term to say that the things that we might be putting down the loo that aren’t good for it are like polluting – that it’s environmental pollution” (18-25 Glasgow)

Reducing Carbon Footprint

The concept of a carbon footprint is familiar to most. The idea of clean energy and carbon accounting was supported as part of ongoing long-term business planning by Scottish Water and, indeed, all organisations. It is worthwhile in itself, and it also sets a good example to others, especially the energy sector, but also to customers.

The solar panels idea, with its illustration of a Scottish Water site, was more easily digested than the Capital Carbon Accounting Tool (CCAT), although some SMEs said they found hard data, as in the CCAT example, more persuasive.

“Very forward-thinking. They seem to be obviously taking it seriously and doing something to minimise their carbon footprint which if all the companies could do that it would be much better” (SME Glasgow)

“The second point, about the solar panel – immediately when I saw that image, that’s a great image and that just looks like that is what they should be doing” (SME Edinburgh)

“It’s a really positive thing that they’re involved with this... If it’s legislation then obviously they don’t really have an option, but that doesn’t mean that you get less effect ... I think Scottish government have got the right idea” (18-25 Glasgow)

“It’s a good way forward – help to reduce their water use and carbon-based energy – it must be good” (55+ Inverness)

“I think these things are fantastic, they’re a necessity now. I think the discussion needs to change – that these aren’t optional. Without being overly dramatic, we’re running out of time to do these types of things” (rural)

“The carbon footprint one for me is the bigger priority... The others are a lower level for me, and although still important, clearly, they’re probably going to make less of an impact in the longer term” (rural)

“Scotland tends to punch above her weight on these types of matters, and I’m not massively surprised that we have that plan” (rural)

A few questioned the relative cost effectiveness in Scotland of solar panels versus wind turbines, and a few bemoaned the visual impact of turbines.

“They’re spoiling our outside areas... with wind turbines everywhere. There’s actually becoming too many” (55+ Inverness)

Managing Water Catchments

This is expected of Scottish Water, although it reinforces the connection between the environment and the provision of quality drinking water.

“Well, we need to look after our lochs and things like that, where we get to keep this water” (55+ Inverness)

Access to Countryside

This was considered a more peripheral point, albeit welcome because it is good to enhance quality of life with enjoyable activities. Some wondered whether this might represent another opportunity to generate revenue to support other initiatives, such as the social and environmental good of landscape regeneration.

“It could be another revenue stream for them, as well, which they could then use to repair some of the pipes that are leaking” (35-55 Glasgow)

“Yeah, I think in the Queen’s Park where we have miles and miles of the sewage pipes, I think they actually created a new basketball court because I don’t think that was there before so I think they have added things to the park while the park was closed. I think that was Scottish Water who did that” (35-55 Glasgow)

Biodiversity

Although only lightly explored, this connected well with Scottish Water and the environment. Water is a fundamental part of the environment and needs collaboration and stewardship. Biodiversity should not be a pollution trade-off but rather a mutual benefit. There was some interest expressed in wildlife and green spaces.

“It’s good but I’m assuming this would be something they’re moving forward with anyway, especially when a lot of their assets are heavily aligned with the environment and ecosystems” (18-25 Glasgow)

“Well, it’s good, water is part of our economy, from fishing and shooting and tourism” (55+ Inverness)

Some felt access to the countryside and Scottish Water’s assets could be monetised, with revenues put back into caring for the environment.

“They also must be making some money from doing fishing permits and things like that. So, though they’re letting people use it, they’re still gathering some funding back” (55+ Inverness)

Building Natural Capital

Although presumed to be beneficial, this concept was less clear. ‘Natural capital’ is not a familiar term and the wording seemed to be a generic description of managing water provision – a hygienic point rather than a motivating benefit. Nevertheless, it was considered to be good that Scottish Water responds to demand, and it was expected that this would be in harmony with the water cycle (as suggested by most of the concepts) and not at the long-term expense of the environment.

“I think that’s just an assumption that that’s what they do” (18-25 Glasgow)

“I didn’t even think about it, but I drive past a water treatment plant most days and they actually did it out a few years ago, and now that I think about it, all the land around it, they’ve planted trees” (25-55 Inverness)

Supporting Wider Circular Economy

The ‘circular economy’ was also an unfamiliar concept, which hindered reactions. The term would need to gain currency before it could be tapped by Scottish Water. However, the implicit contrast with a throw-away culture was understood by some participants, who recognised it in the behavioural shift to reusable bottles replenished with tap water.

The written points seemed worthy, if somewhat opaque, abstract and distant. They contain the foundations for propositions that could be meaningful to customers. Lurking here is a wider issue that needs educational support to gain currency, which could then be tapped by Scottish Water.

“I don’t get how a circular economy is different from a recycling one, it sounds like the same thing” (35-55 Glasgow)

“I think with these things is that it obviously sounds great in theory, but again, it needs to be promoted on a level of what that actually means for Joe Blogs on the street or a family or a business” (rural)

“This is a very good idea but implementing it will take time because it’s not only our generation” (18-25 Glasgow)

8.3.4 Environmental harm

Alongside this array of environmental ideas and initiatives, a couple of other points were explored. What were participants' expectations and assumptions around water loss, and what about extreme extraction causing dry rivers? On the whole, participants found them difficult to accept, even if dictated by commercial necessity and offset by virtuous initiatives.

Water loss¹⁶

When told of the scale of water loss, almost all participants were shocked, although they were pleased to learn that the percentage of loss has been decreasing over recent years.

"I would have thought it would be below five percent... I didn't realise it was so high" (35-55 Glasgow)

Wasting water was widely considered to be a moral issue, and not merely an economic one. Even if the cost of repair is greater than the value of the treated water lost, almost everyone felt leakage should be reduced, by both Scottish Water and property owners.

"Scottish Water's responsibility is to keep their assets up-to-date" (35-55 Glasgow)

"Not just about cost... Just because we've got something that is in abundance, we shouldn't be wasting it, should we?" (SME Glasgow)

"Well, they've gone to the effort to treat it and collect it and whatever else then it's just wasted" (25-35 Inverness)

"I know it goes back into the soil and it'll come out somewhere else, but the fact that you're not getting use of it and it's probably gone through a water treatment plant and then leaking out somewhere, it's a waste of money" (55+ Inverness)

Some challenged the economic argument that repairs are not cost effective, saying that over time there would be a break-even point. Others suggested that water is likely to become more valuable in future, due to population increase and the disruption of climate change. Moreover, such vast loss by Scottish Water could undermine efforts to improve customer behaviour, and to charge more for measures to help the environment.

"That must be the profits running out the door. Surely, they have to recoup this twenty-seven percent. That would be losing profits if you're a company like Scottish Water" (35-55 Glasgow)

"In the long run it must be more cost effective to fix it, surely?" (35-55 Glasgow)

"I'd imagine over 20 years they'd claw that back, so it's what time period... I can't imagine that they do all the processing and the machinery and the equipment and... the manpower they do to clean the water to then lose that water" (SME Edinburgh)

There were, however, one or two pragmatic voices that accepted that economically leaks might have to be tolerated where there is no environmental damage.

"I suppose if leaks aren't causing an issue in some way – they're not leaks that are flooding a street or something that's really negative impacting – then from a business perspective, which ultimately they are at the end of the day, that's the right business decision" (rural)

Dry rivers¹⁷

¹⁶ 459 million litres of water a day is lost in Scotland because of leaks – equivalent to 27% of the daily supply

The general perception is that water is plentiful in Scotland. The prospect of water shortages, and needing to extract from rivers, therefore seemed remote; this might be a problem in England but not in Scotland. Furthermore, the beautiful landscape is cherished and most felt uneasy about the idea of damaging the environment. Participants' response was therefore that customers should use less when water reserves are under strain, and that Scottish Water should plan for dry events, including by addressing leakage.

"I think the public have a duty of care to maintain our water levels as well... I don't see a problem with a hose pipe ban, I don't see a problem with... reducing the amount... people can use when water is low" (SME Edinburgh)

"I think it works both ways. So, if Scottish Water is going to try and do something about it, do you not think that us who use it could be more environmentally friendly about, if it's going to be a hot summer, trying to save more water as well?" (55+ Inverness)

However, some SMEs felt businesses that rely on water might not be able to go without and that any water restrictions imposed should differentiate the types of usage.

"A lot of water sports go on the river, you know... and every year the river level gets so low that the white-water rafting company struggled to maintain their business and that's because the water is being relieved from the river" (SME Edinburgh)

8.3.5 Education and communication

There is some customer interest in knowing more about water and in encouraging improved customer behaviour and attitudes. This was considered important in the context of climate change. It would help create a sense of value in water, and the fresh and waste water service. It might also win around the few who are a little more cynical.

"I think it's lack of education, because a lot of people don't understand the impact. And if you don't understand, then you're not going to do anything about it" (18-25 Glasgow)

"In the wider picture, Joe Public is only interested in getting clean water, making sure the sewage is away and is treated properly, but again, everybody has got to play their part" (mobility issues)

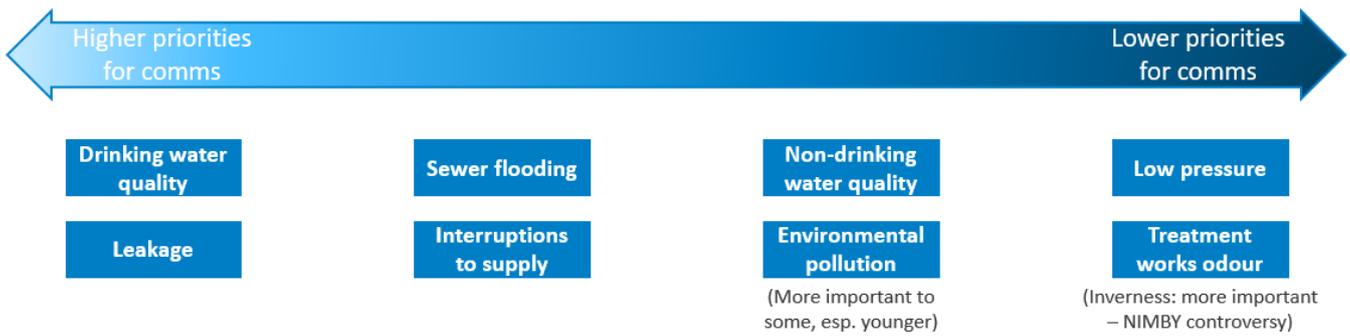
Throughout the discussions there were several spontaneous suggestions that Scottish Water should tell customers about the initiatives presented in the research. Some are inherently interesting and impressive. The way the information is communicated, though, would need careful consideration.

"We're not going to sit and read that [Sustainability Report] but surely Scottish Water can pick out points from that and have one wee campaign and then on social media" (35-55 Glasgow)

Participants felt some issues would be higher communication priorities than others to customers.

FIGURE 29: PRIORITIES FOR CUSTOMER COMMUNICATION

¹⁷ What should be the balance between restoring water supply and taking water from a river, even if it resulted in drying the river and causing ecological damage?



- Drinking water quality and leakage were considered higher priorities. They are core issues for customers, likely always to be relevant and requiring ongoing focus. Drinking water quality is the most salient.
- Sewer flooding and interruptions to supply can also hold high priority, but only on an ad hoc and reactive basis when an emergency demands a quick fix and accompanying information. They hold high personal impact, but the issue is likely to subside and generally it was felt that communications should not dwell on negatives.
- Non-drinking water quality and environmental pollution were generally considered lower priorities because they are more distant, background issues. However, environmental pollution was considered more important by some (especially younger participants). The environmental theme held promise as a supportive cue to reinforce the message of drinking water quality. This could be enhanced by the innovation credentials implicit in some of the initiatives and ideas explored.
- Low pressure and treatment works odour were relegated to the lowest priorities, because overall they represent little risk, have low impact, and therefore are less relevant.
“Like we said last week, the low pressure, as long as there’s still water coming out the tap, it’s probably not the biggest concern. And we’re surrounded by farms, so I don’t think that odour makes much of a difference!”
 (25-35 Inverness)

There are connections between the communications themes that could be mutually reinforcing. Drinking water quality credentials, for example, would be supported by positive messages about non-drinking water quality and fixing or preventing environmental pollution. Reducing environmental pollution incidents could reinforce messaging about what not to dispose of down a sink or toilet. Planned supply interruptions would feel more tolerable if related to upgrading infrastructure for future benefit.

“It almost goes hand-in-hand with the drinking water quality. This is what we do for the environment to give you this quality water” (25-35 Inverness)

“They’ve just done a big project putting pipes down on Southside at Queens Park, so there’s a big sewage system. I know that’s going to be for the good of the future, but it was quite disruptive to the community at the time and a lot of roads had to be closed” (35-55 Glasgow)

Communications would be expected to take a multi-layered approach, revolving around the key theme of drinking water quality (as in the current campaign) and potentially expanding into supportive areas such as environmental protection. For example, clean waterways could support the clean drinking water message; environmental protection, such as carbon reduction and green energy, could introduce innovation and positive future facing ideas.

Participants envisaged succinct headlines, simple diagrams (like the Source to Sea diagram¹⁸) and use of social media as well as traditional formats. The communications would need to capture their attention. They recognised that in their day-to-day lives people are not willing to exert much effort to learn about worthy topics, however important they may be, but surprising facts and unexpected data might capture people's interest.

"Not too much detail because people will switch off, so just a line or two about each" (SME Glasgow)

"I got something off them from the council tax this year... that tells you what Scottish Water has been doing. I must admit I thought, oh that's nice, and recycled it of course, but I didn't really sit and read it all" (35-55 Glasgow)

"I think that when there is better explanation to things people tend to take it in more than if you just say, well, this is how it's going to go, then it's like dictatorship. But then when they explain what's happening, people will buy into it" (25-35 Inverness)

As a final question in the quantitative questionnaire, customers were asked if there was anything else, they believe Scottish Water should be focussing on with regards to the environment. Again, there was a theme around education and advertising, with customers wanting to be made more aware of the work Scottish Water are currently doing and suggesting they make themselves more outward facing by e.g. presenting at local schools. Customers also had some suggestion relating to the continuation of supply, both by implementing pre-emptive methods such as maintaining pipes more regularly rather than waiting for them to block and reducing the disruption through repairing pipes in collaboration with other utility questions. Other comments from customers included doing some charity work, i.e. helping those less fortunate in Africa have access to clean water and also simply looking to reduce the bills for customers.

¹⁸ See appendix 10.4.1 ECP and Triad Stimuli

9 Conclusions and next steps

9.1 Scottish Water Perceptions

Customers had a very positive view of Scottish Water in terms of satisfaction; however, knowledge of the process water goes through in its cycle is low, and therefore impact value for money perceptions as clean water and wastewater cleansing is often taken for granted. Once customers are educated about the effort required to treat wastewater and provide clean water, as well as other work Scottish Water do for the local and national environment, it is likely perceptions would further improve.

On the whole, climate change is accepted as being an important issue globally (with a few notable exceptions such as the US president). However, solutions need to be realistic to implement (i.e. at no significant extra cost to customers and with little additional effort or limited inconvenience). It is not something an individual can change alone, but every individual needs to play their part (customers, businesses and Scottish Water) which in itself can be overwhelming and leave some customers feeling defeatist at the scale of the task. There are some areas where customers feel more could be done to highlight the problems and potential solutions however, such as further education on not just what cannot be flushed down the drains, but how to alternatively dispose of cooking oil, soup, milk etc.

There is some action amongst customers, but fewer than half of customers are currently trying to reduce their water consumption, or expect to have reduced consumption in the next 10 years. Future customers (16-25 year olds) were much more likely to be more environmentally conscious in 10 years' time and in some cases were frustrated with other generations who they felt were not making as much effort to protect future generations.

There is still some scepticism around the environment amongst some (often older and more rural customers). Increasingly customers can see the long-term issues with not protecting the environment, but most often amongst those who are older and may not see the impact themselves, there is some suspicion over whether the damage will be as severe as predicted and, in some cases, whether there will be any negative impacts at all.

9.2 Scottish Water's investment

The relative importance of the environment amongst Scottish Water's other priorities was confirmed during this research – i.e. Not at the expense of key services. Environmental investment priorities for domestic and commercial customers are clear:

- Reduce microplastics reaching river water and;
- Reduce leakage from the network

Microplastics in particular are currently top of the agenda, but this is likely to be part of a wider concern over vast quantities of single use plastic being put into the environment not just in rivers and oceans, but also landfill. Scottish Water should publicise the work already being done in this area, and how customers can help.

The investment discussed means extra costs are top of mind for many, and even those willing to pay more would not want to pay a lot to protect the environment. Once again, the balance of effort/cost to customer are being weighed against individual benefit in the first instance, before national/global benefit, so the benefits to customers need to be clear to gain support for investment.

9.3 Scottish Water's Role

Scottish Water no doubt has a role in protecting the environment, in particular the rivers, reservoirs and bathing water of Scotland, a space in which so much is already being done. However, the primary role for Scottish Water is to *educate* the public about:

- Initiatives already taking place such as circular economy of waste water

- The importance of water efficiency (for domestic and business customers)
- Reducing pollution reaching rivers
- Reducing Scottish Water's carbon footprint (and enabling renewables)
- Explaining the full impact of water efficiency, why it is important and the benefits to customers and the wider environment

Whilst the content of the education is vital, the way in which it is communicated is even more important, to ensure customers read it and can easily digest and take on board these messages. Most customers are unlikely to seek this information out and therefore it needs to be delivered across a range of media (print, advertising, social media, website and community outreach events) in digestible chunks that make customers want to tell their friends what they have seen and discuss how they might help by doing their part.

9.4 Next steps

Leakage is no longer acceptable to customers when they are being asked to reduce their own water consumption – customers believe this should be tackled for the greater good of the environment. Communicate to customers what is being done now, what is planned and what the benefits will be to Scotland of tackling this (over what time period).

Microplastics are a current big issue: Some work has already been done to tackle these at source (EU recommendations to restrict microplastics being intentionally added to products such as cosmetics and toiletries) however customers feel Scottish Water have a clear role to play here in investing to help prevent these reaching the environment. In fact, the issue of plastic generally is a hot topic and of concern – this should be monitored over time to see whether it remains so over the next 5-10 years.

The way in which we **communicate** is crucial. Customers (especially future customers) are concerned about these issues, but not particularly well informed. Scottish Water is already doing a lot more than most customers realise and customers are keen to hear this. It needs to be clear it's a collaborative solution (with everyone playing their part) and that this will not be quick fix, but some areas are already being worked on, others need long term investment.

10 Appendices

10.1 Recruitment Screeners



ECP and Triad
Recruitment Screener



SME Recruitment
Screener

10.2 Discussion Guides



ECP and Triad
Discussion Guide Pt1



ECP and Triad
Discussion Guide Pt2



SME Discussion
Guide

10.3 Questionnaire



Questionnaire

10.4 Stimuli

10.4.1 *ECP and Triad Stimuli*



Session 1 Showcards



Session 1 'About
Scottish Water'



Session 2 Showcards



Participant diary

10.4.2 *SME Stimuli*



Showcards