

## Environment

## Consumer Perceptions & Experiences of Drinking Water Quality in Scotland

Kirsty McKissock, Richard Morgan, Sinead Assenti  
mruk research

Despite significant investment to improve drinking water quality standards and the resulting high levels of compliance in Scotland, consumer complaint data from Scottish Water suggests a number of consumers perceive a problem with their tap water quality. This project investigated public experiences and views of drinking water quality, and specific factors which influence consumer perceptions in order to inform any future work in this area by DWQR and others. The findings are based on a desk-based literature review of existing research and data relating to consumer perceptions of water quality; mapping of data related to Scottish water quality and previous complaints; a quantitative survey of consumers across Scotland (1,300 telephone interviews) to explore experiences, perceptions and behaviour; and a qualitative phase of research (8 focus groups) to explore key factors emerging from the quantitative survey in more depth. **mruk** research were commissioned to undertake the project by Rural and Environment Analytical Services on behalf of the Environmental Quality Directorate within the Scottish Executive to inform the Drinking Water Quality Regulator (DWQR).

### Main Findings

- Most respondents mainly drank tap water (72%) and tended to rate the quality of their tap water positively (90%). However, variations in perceived water quality were dependent upon past experiences.
- Around two thirds of the general population sample (67%) had experienced no problems with their tap water. People who had complained in the past about drinking water quality were concerned about safety, and as result more likely to drink bottled water more often.
- Of those customers who experienced a problem, only 18% went on to report it. The primary motivations to report a problem were concerns over safety (and possible health implications) and concern that the problem was worsening over time.
- Confusion over the roles and responsibilities of Scottish Water and the DWQR were apparent across all phases of the research. Confusion was also apparent when seeking to make a complaint about water quality, with almost a fifth not knowing where to go to make a complaint and over a quarter likely contact their local authority
- Despite only 1% of respondents being aware of the DWQR there was strong support for the existence of an independent regulator. Desire for information about DWQR to be in the public domain was strongest amongst those who had experienced a problem and those who had previously complained to Scottish Water.

## Introduction

Recent years have seen significant investment to improve drinking water quality standards, resulting in high levels of compliance with respect to quality standards (in 2005 99.56% of all tests on samples on consumer taps met required standards).<sup>1</sup> Despite this investment, customer complaint data from Scottish Water suggests a number of consumers perceive that they have had a problem with their tap water quality. In 2005 22,553 complaints were recorded, rising to 25,299 in 2006. The complaints data indicated that the most common prompt for concern was the appearance of the water, followed by dissatisfaction with the taste. Even when there is no danger to health a discoloured supply, or unusual odour or taste can result in consumers being concerned about the impact on their health and a loss of trust in their supply. Research was therefore necessary in order to explore the following main themes:

- Opinions of tap water and drinking behaviour
- Importance and priorities of tap water quality and service provision
- Experience of water quality issues
- Experience, outcome and key drivers of reporting concerns
- Awareness of Scottish Water, DWQR and associated roles
- Views on water processing and treatment

## Research Methods

The project comprised 3 key stages:

1. A literature search was undertaken to establish what information already existed on the subject of consumer perceptions of drinking water quality and the effect of this on propensity to complain. At this stage a mapping exercise of complaints from 2005 and additional data about water quality, supply zones etc was also undertaken.
2. A telephone survey of 1,300 consumers across Scotland comprising 1,000 interviews with the general population. To allow more detailed analysis a further 200 interviews with those living in rural areas and 100 interviews with complainants were also carried out.

<sup>1</sup> Standards are set out in the Water Supply (Water Quality) (Scotland) Regulations 2001

3. A qualitative stage of 8 focus groups undertaken across Scotland to gain a better understanding of consumer perceptions and factors which affect a person's readiness to complain. The group structure was segmented to take account of those who had or had not experienced a water quality issue and had or had not reported an issue previously.

## Literature Research Findings

The literature search confirmed that there continues to be a dichotomy between consumer perceptions of quality and the scientific measures derived from testing.

Evaluation of the existing body of research carried out by Scottish Water suggests that consumers believe on the whole that their water is safe to drink. However, in many instances they chose not to drink it because it had a taste, colour or an odour. The consumers who chose to drink bottled water in preference felt it was more pure and enjoyable to drink because it had no taste / odour and was perfectly clear.

Qualitative consumer research in those geographic areas that had experienced a genuine problem had shown that there were ongoing issues with trusting Scottish Water.

The literature search highlighted many gaps in our knowledge and understanding of what drives consumer perceptions of water quality, underlining the need for the next stage of primary research.

## Mapping

A number of factors were mapped as part of the desk research in order to inform the methodology and analysis of the main survey. These included:

- Supply zones
- Treatment works
- Failures
- Water Quality Incidents
- Mean chlorine levels
- All complaints

and additional maps for the most common types of complaint.

# Key Findings From Quantitative and Qualitative Research

## Water Consumption

Daily consumption of water varied, with around one in ten not drinking any water. Overall, 16% of the general population sample was drinking the recommended amount of 6 – 8 glasses a day. The majority of respondents were mainly drinking tap water (72% general population, 77% rural, 74% complainants), predominately due to ease of access. A higher proportion of complainants were drinking bottled water when compared to other samples surveyed (21% compared to 15% of general population). In the group discussions complainants attributed their increased consumption of bottled water to a lack of trust regarding tap water quality.

## Perceptions of tap water quality

Perceptions of tap water quality were in the main good, with 90% of the general population and rural samples rating the quality positively. However, variations did exist dependent on past experiences of drinking water quality problems.

Those with no past experience of water quality problems expressed clear, positive views and were more likely to view bottled water negatively.

Past complainants held more negative views, with 50% rating tap water quality positively. Negative perceptions amongst this group were predominately driven by concerns about safety (Figure 1), resulting in increased bottled water consumption.

## Priorities for tap water quality

Past experiences of water quality issues also influenced the strength of importance complainants placed on service elements and delivery. Qualitative findings suggest that negative experiences of contact with Scottish Water heightened the importance of service provision and water quality as a whole.

The desire for information on the quality of local tap water was notably higher amongst complainants. Not only were such respondents more likely to be drinking bottled water, they were also more likely to complain in the future about any service or quality issues due to a continued lack of trust.

## Experience of water quality problems

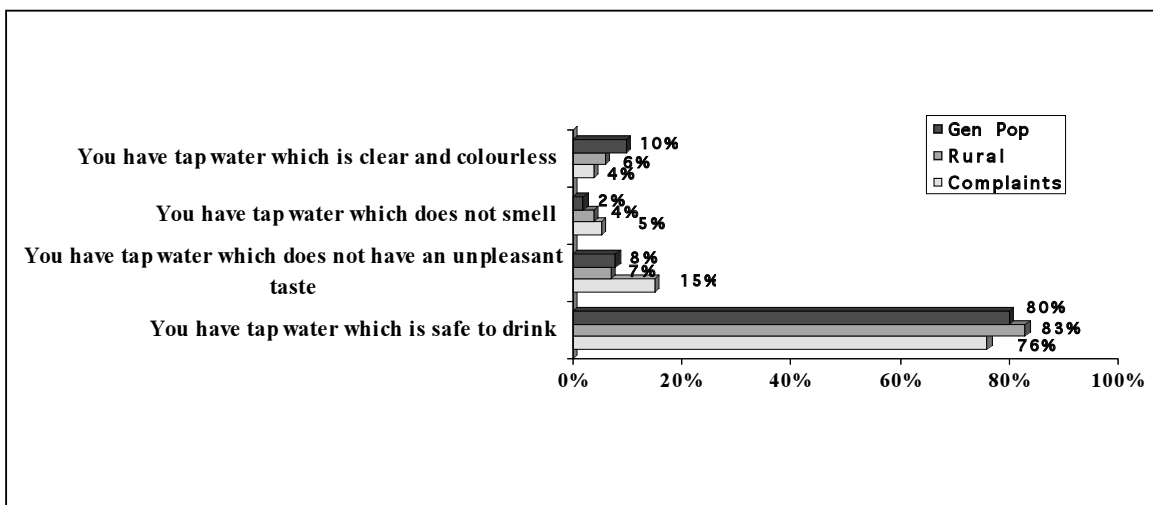
Around two thirds of the general population sample (67%) and rural sample (64%) claim to have experienced no problems. Among those who did, the most common problems related to appearance, taste and odour.

## Reporting behaviour

Almost one fifth (18%) of the general population who experienced a problem went on to report it. Of those reporting the problem, only 45% contacted Scottish Water initially, with a significant minority reporting the matter to the local authority.

Levels of satisfaction with the outcome of the contact were mixed. Continued frustration amongst complainants was evident, with perceived poor experiences of contact culminating in some of these consumers feeling alienated over time.

**Figure 1: Most important water quality issue**



Base: 1200: General Population; 362: Rural; 100: Complainants (All respondents)  
Source: **mrk** research, April 2007

When presented with a number of hypothetical case studies relating to discolouration, unusual taste and odour, most respondents described a similar approach to how would they deal with these problems. This included leaving the tap running, checking with neighbours and waiting for the problem to clear before contacting Scottish Water. The two primary motivations for reporting were concerns over safety/effect on health and concern that the problem was getting worse over time.

*"If it's been a certain way before that I'm used to, and it suddenly changed for whatever reason I would be suspicious of using it" (Male, 25-40, Inverness)*

*"I'd give it a chance, but if it doesn't clean then I'd get concerned" (Female, 60-75, Peterhead)*

#### *Awareness of organisations and roles*

Throughout the research there was confusion about the roles of Scottish Water and the DWQR. Just over half of the general population were spontaneously aware of Scottish Water as their supplier. Almost a fifth (17%) would not know where to go to make a complaint about water quality. Over a quarter (27%) would be likely to contact their Local Authority.

No more than 1% of respondents from the quantitative phase spontaneously identified DWQR as the drinking water regulator in Scotland.

Despite lack of awareness of DWQR and associated roles, there was strong support for the existence of an independent regulator.

The desire for information about DWQR to be in the public domain was highest amongst those who had experienced a problem. Complainants as well as those with ongoing issues, were keen to know more about how to contact DWQR.

#### *Need for education regarding water treatment*

Three quarters of all sample groups were unsure how their water supply was treated. Nonetheless, it was considered important that water is treated before it reaches the tap. Although the desire to know more about what is in tap water was strong across all research samples, strength of opinion was notably higher amongst complainants and lower amongst younger audiences.

## Key Themes Emerging

Concern over health was the main factor influencing a person's readiness to complain. However, any ongoing variation to normal quality could prompt a complaint.

Having made contact with Scottish Water there was an expectation that they would be told about why the problem had occurred and that the problem would ultimately be fully resolved.

It was apparent from qualitative research that complainants were often dissatisfied with the contact with Scottish Water due to a number of factors:

- No feeling of a satisfactory explanation for the problem
- No resolution of the problem
- A perceived lack of interest in the problem

Complainants were then observed to feel frustrated, isolated and mistrusting of Scottish Water. This made them more likely to complain again about the same problem or to be quicker to complain about any future issues.

## Future Considerations

Overall, the quality of drinking water in Scotland was rated positively by 90% of those surveyed. However, the research findings identified a number of factors that could be addressed through operational change and better public awareness.

It is apparent that consumers who contacted Scottish Water about a water quality complaint do not always feel that their concerns have been fully resolved and that they have been kept informed. It is imperative that consumers who make contact with Scottish Water feel that the customer service team is knowledgeable, understanding and are engaging with the individual as well as empowered to initiate any required action. As part of this contact, consumers need prompt, relevant information to be provided with ongoing dialogue if desired in order to ensure they feel reassured and not alienated.

Consideration must also be given to improving public awareness of Scottish Water and its role. Similarly, a need exists to improve awareness levels of DWQR, particularly in helping to improve public confidence in water quality, and as

a further source of assistance with a water quality problem should the consumer feel their issue is not being progressed by Scottish Water. Consideration also needs to be given to improving knowledge of actions that DWQR can take if and when required. It is, however, apparent that consumers are not interested in detailed information on the operation of the Regulator itself, and rather require that the necessary contact details are readily accessible should they be needed.

There is therefore clear evidence of the need to establish clear 'signposting' advice for consumers, for both emergency and less pressing information and response

requirements. Scottish Local Authorities currently appear to be dealing with mis-directed water quality enquiries, so a co-ordinated multi-agency effort will be required in order to address this situation (and may involve other consumer environmental issues).

However, consideration must be also given to the possibility that increased awareness of the DWQR could lead to the bypassing of Scottish Water customer service teams and indeed the opportunity for Scottish Water to address any perceived problem prior to being passed to DWQR.

If you have any enquiries about social research, please contact us at:

Scottish Government Social Research  
4<sup>th</sup> Floor West Rear  
St Andrew's House  
Regent Road  
EDINBURGH  
EH1 3DG  
Tel: 0131 244-2256  
Fax: 0131 244-5393  
Email: [socialresearch@scotland.gsi.gov.uk](mailto:socialresearch@scotland.gsi.gov.uk)  
Website: [www.scotland.gov.uk/socialresearch](http://www.scotland.gov.uk/socialresearch)

The reports "Customer perceptions and experiences of drinking water quality in Scotland. Secondary research report", and "Customer perceptions and experiences of drinking water quality in Scotland. Full Report", which is summarised in this research findings is a web only document and is available on the publications pages of the Scottish Government website at

<http://www.scotland.gov.uk/Publications/Recent>

This document (and other Research Findings and Reports) and information about social research in the Scottish Government may be viewed on the Internet at: <http://www.scotland.gov.uk/socialresearch>

The site carries up-to-date information about social and policy research commissioned and published on behalf of the Scottish Government. Subjects covered include transport, housing, social inclusion, rural affairs, children and young people, education, social work, community care, local government, civil justice, crime and criminal justice, regeneration, planning and equalities issues. The site also allows access to information about the Scottish Household Survey.



ISBN 978-0-7559-6760-5

