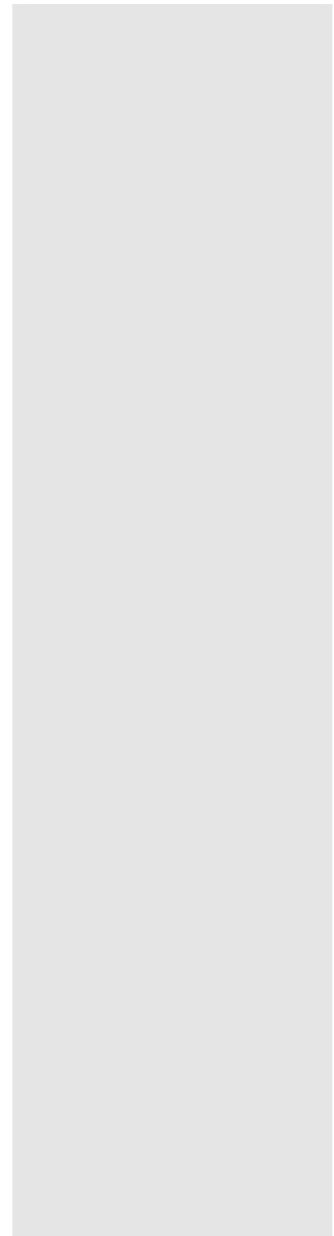


**ASSESSING THE
EFFECTIVENESS OF
VARIABLE MESSAGING
SIGNS TO INFORM BEACH
USERS ABOUT BATHING
WATER QUALITY**

**RESEARCH REPORT
NOVEMBER 2004**

SA10838



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mruk research

**Scottish Executive Social Research
2004**

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EXECUTIVE SUMMARY

BACKGROUND & OBJECTIVES

1. **mrk** research was commissioned by the Scottish Executive Office of Chief Researcher (OCR) on behalf of the Water Environment Division to carry out research to assess the effectiveness of variable beach messaging signs. The signs have been used to provide information on the quality of bathing water at beaches in Scotland.

2. The overall aim of the research was to assess the effectiveness of using electronic signs as a means of informing beach users about bathing water quality. The study also sought to assess public attitudes to the signs, the messages displayed and bathing water quality issues in general.

METHOD

3. A quantitative study was undertaken with 1,000 visitors across three beaches (Ayr, Troon and Saltcoats). A short pilot study was undertaken to test the questionnaire. Each interview lasted about 10 minutes.

4. The weather was a key factor in managing this research although it is not considered that the weather changes the views of people interviewed. August 2004 saw some very poor weather and high rainfall.

KEY FINDINGS

Profile of The Sample

5. Most respondents were visiting the beach with their family (67%) or friends (17%) in a group of between 2 and 4 people (69%).

6. The age profile of these beach users is younger than that for all Scotland and has a higher proportion of children. From the total sample 56% were female and 44% male. In terms of socio-economic group the profile of these beach users had more DE and fewer C2 respondents than the Scottish population.

Journey to the Beach

7. Over a third (35%) were tourists or visitors. Most had travelled that day for about an hour or less.

Frequency of Visiting the Beach in the last year

8. Most respondents visited “this” beach once every two to three months during the summer months of the last year. Visiting during the winter months of October to May was a lot less frequent with 53% never visiting at this time of year.

Use of the Water at this Beach

9. Before coming to the beach 35% had intended to bathe or use the water. Of the total sample 40% can actually be classified as bathers i.e. people who planned to or had already used the water that day for swimming, paddling or any other recreational activity. There were 44% who never usually used the water for recreational purposes.

10. Usage of the water at the beach was higher among families (40% compared with 19% who visited alone and 26% who visited with friends).

11. Swimming (33%) and paddling (87%) were the most common recreational activities undertaken in the water.

12. Those who did not use the water primarily related this to a lack of interest (47%) or water temperature (27%). Almost a third (31%) mentioned cleanliness or pollution of the water.

Awareness and Impact of the Electronic Sign

13. From the total sample a third had noticed the sign on the day of the interview and 18% had seen it before.

14. Of those who had seen the sign there was a smaller proportion of bathers – 31% compared with 50% of those who not seen the sign. Furthermore, 21% of those who had seen the sign thought it had influenced their decision on using the water.

15. The vast majority (89%) thought the sign was very or quite easy to understand. Most of those who had seen the sign thought it was very or quite easy to see and read (97%). Most of the respondents who had seen the sign also thought it had increased their awareness of water quality issues at this beach (80%).

Impact of the Sign on Likelihood of Visiting the Beach

16. Almost half (47%) expected they would be more likely to visit a beach because it had a sign giving water quality information. A poor water quality prediction was slightly more likely to have an impact on visiting a beach than a good prediction.

Provision of Other Information on Signs

17. There was only low level interest in the types of information (that could also be placed on the signs) prompted in the research (e.g. number of days of good water quality so far this season). However, 11% thought they would definitely use the SEPA telephone line and a further 30% thought they would possibly use it. There was low awareness of the SEPA website detailing bathing conditions at Scottish beaches (6%) – 12% would definitely use it in the future.

KEY FINDINGS

18. The key conclusions from this research area:

- 51% had noticed the sign – encouraging as multiple access points were found at most beaches
- 89% thought the signs were very or quite easy to understand
- Most who had seen the sign found it easy to see and read (97%)
- Only 21% who had seen the sign thought it influenced their behaviour
- The majority (80%) who had seen the sign had increased awareness of water quality issues at that beach
- Before coming to the beach only 35% had planned to use the water – yet 40% can be classified as bathers
- No strong interest in prompted types of other information being provided on the signs
- Limited interest in SEPA website and phonenumber to find out about bathing conditions
- Presence of a sign giving water quality information was well received – 47% more likely to visit and no difference to 52%.

CHAPTER ONE INTRODUCTION & BACKGROUND

1.1 The Scottish Executive Water Environment Division commissioned a face-to-face survey with beach users to assess the effectiveness of variable messaging signs giving information on the quality of bathing water at three beaches in Scotland. The overall aim of the research was to survey a sample of beach users sufficient to:

- Assess the effectiveness of using electronic signs as a means of informing beach users about bathing water quality; and
- Assess public attitudes to the signs, the messages displayed and bathing water quality issues in general.

1.2 Table 1 details the locations where signs were situated in the 2004 bathing season.

Table 1: Locations of bathing water signs and peak beach usage in 2003

Name of bathing water	Peak daily beach usage observed in 2003
Ayr (South)	1,400
Aberdeen Ballroom	187
Brighouse Bay (Dumfries & Galloway)	124
Ettrick Bay (Isle of Bute)	240
Irvine	273
Sandyhills (Dumfries & Galloway)	833
Portobello Central	1,064
Prestwick	155
Saltcoats	320
Troon (South)	529

1.3 Scotland has 60 identified bathing waters, of which a number may fail European mandatory standards for quality in any year. The main cause of failure has traditionally been acknowledged to be sewage discharges. However, even with continued investment in sewerage, the Scottish Executive (SE) believes that certain bathing waters will continue to be at risk of failing, due to the impact of diffuse sources of pollution. This problem is particularly acute in south west Scotland.

1.4 During 2003 and again in 2004 the SE, working with the Scottish Environment Protection Agency (SEPA), installed electronic signs (listed in Table 1) around the Scottish coast as part of a pilot project to inform the public of the predicted bathing water quality that day. The purpose of these signs being to advise the public about periods when the bathing water is at risk of experiencing poor water quality. The daily message is intended to help inform the public whether to bathe, without the need to wait for the results of bacteriological testing. Messages on the signs indicate either “Good water quality is predicted today” or “Bathing not advised – risk of poor water quality today”.

1.5 The technology of the signs and the capacity of SEPA to predict bathing water quality are now well proven. However, it was also important to demonstrate whether signs at beaches were an effective method for informing the public.

CHAPTER TWO AIMS & OBJECTIVES

2.1 The overall aim of the research was to assess the effectiveness of variable messaging signs to provide information to beach users about bathing water quality.

2.2 Specifically the research considered:

- Awareness of the variable messaging signs amongst beach users
- The impact of the messages carried on the signs on bathing behaviour
- Frequency of visits to the beach
- Other methods of information provision beach users might find useful
- Party size and make up; and
- The users' perception of whether the signs heightened their awareness of water quality issues at that particular site

2.3 Initially the research sought to ensure effective participation from the full range of beach users including families, bathers, windsurfers etc. However it was found during the pilot study that almost no-one was participating in any kind of water sport whilst using the beach and therefore this quota was removed from the research.

2.4 This research follows up a survey undertaken in 2003 by TNS Travel and Tourism. "Bathing Water Use in Scotland" research findings no.3/2004 is available on the Scottish Executive website at <http://www.scotland.gov.uk/cru/resfinds/grf3-00.asp>. The 2003 study aimed to provide information for the development of a designation framework for beaches and recreational waters based on the uses and values placed upon them by the local population and visitors. In addition, it gained some information on attitudes towards the use of public information sign systems at bathing water sites. References are made to the 2003 study, where appropriate, in this report.

CHAPTER THREE RESEARCH APPROACH

SAMPLING

3.1 The research was a quantitative study focusing on the behaviour and attitudes of beach users. Beach users were interviewed at 3 locations where there was an operational sign and good flow of visitors.

- Ayr
- Troon
- Saltcoats

3.2 The research required comparison of the effectiveness of the signs at each location so it was important that sufficient interviews were carried out at each site to enable this and to allow some comparison between different sub-groups such as bathers and non-bathers. A total of 1,000 interviews were carried out across the three beaches between 7th and 30th August. A quota was set to ensure at least half of the total sample was bathers and to ensure good representation of those with and without families. (Use of this quota sampling method means it is not possible to provide data regarding margin for error). It is important to note that the poor weather meant that on many days it was not possible to achieve the desired daily number of interviews due to lack of people on the beaches although the desired number of interviews for each beach was eventually achieved.

QUESTIONNAIRE DESIGN AND PILOTING

3.3 Following an initial briefing meeting with OCR and Water Environment Division and on consideration of the questionnaire used in 2003 in a separate study, **mrnk** drafted a questionnaire for consideration and approval. The questionnaire lasted 10 minutes and consisted largely of closed questions. A copy can be found in Appendix 1.

3.4 It was important to pilot the questionnaire in advance of the main body of fieldwork in order to:

- Test the questionnaire length
- Test any routings were working correctly
- Ensure interviewer and respondent understanding of the questionnaire wording and structure; and
- Test the appropriateness of the interview for the environment

3.5 A 2 day pilot, with an interviewer working a full shift at 2 pre-agreed sites, was carried out and found the questionnaire structure to be sound.

INTERVIEWING

3.6 All interviewing was carried out by trained and experienced IQCS (Interviewer Quality Control Scheme) interviewers.

3.7 Respondents were not interviewed until they had been at the beach for a sufficient length of time to allow them to assess whether or not they might be bathing that day without being prompted to decide by the interviewer. A combination of interviewing on the beach and at exit points / in car parks was used.

3.8 Interviewing was carried out on a mix of weekdays and weekends, with a focus on carrying out the fieldwork for the research during the school holidays to maximise the potential number of respondents.

3.9 The weather was a key factor affecting the number of people at a given beach on a given day. Interviewing in very poor weather conditions such as persistent rain is pointless and several interviewing days were cancelled for this reason. It would have been unrealistic and not representative to try and interview only on days where weather conditions were perfect. It is worth noting that August was a particularly wet month and this could have a negative effect on water quality during the period when interviewing was carried out.

DATA PROCESSING AND ANALYSIS

3.10 All questionnaires were edited and coded on return to **mrnk** offices. All of the analysis process was done in-house. In this way a dedicated team of coders worked on this project who all had good background understanding of the research.

3.11 The questionnaire data was input into the Statistical Package for Social Sciences programme and analysed.

CHAPTER FOUR PROFILE OF SAMPLE

4.1 This section of the report describes the respondents who participated in the research.

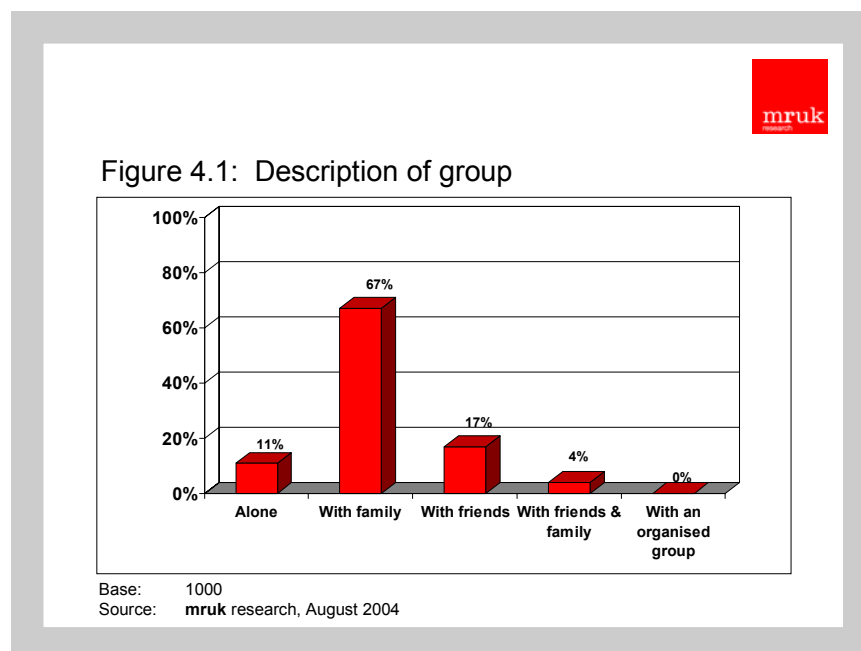
BEACHES SURVEYED

4.2 The sample was split almost evenly between the three beaches at Ayr (32%), Troon (36%) and Saltcoats (33%). There were few differences between the behaviour and attitudes of respondents at the three beaches. Some minor differences in the behaviour of respondents at Saltcoats are noted where relevant in the report.

4.3 At the time of the interview, the interviewer was required to record the message on the sign. In most instances (76%) the sign read “Good quality water is predicted today”. In the remaining 24% of cases the sign read “Bathing not advised today, risk of poor water quality”. There were some differences between the three beaches with the sign at Troon significantly more likely to read “Good water quality is predicted today” (99% compared with 61% in Ayr and 64% in Saltcoats).

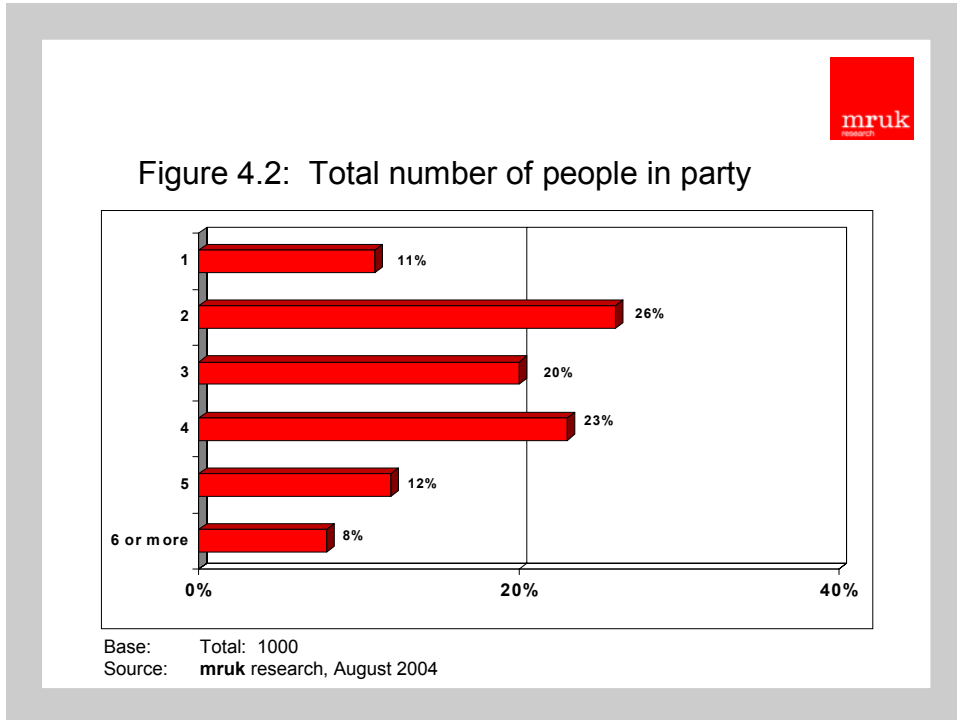
DESCRIPTION OF THE GROUP

4.4 Figure 4.1 shows that over two thirds of the respondents were visiting the beach on the day of interview with their family (67%), almost a fifth were with friends (17%) and 11% were alone. Only a tiny proportion were with an organised group. There were few differences between the three beaches, although there were a higher proportion at Saltcoats who were visiting the beach alone (23%).



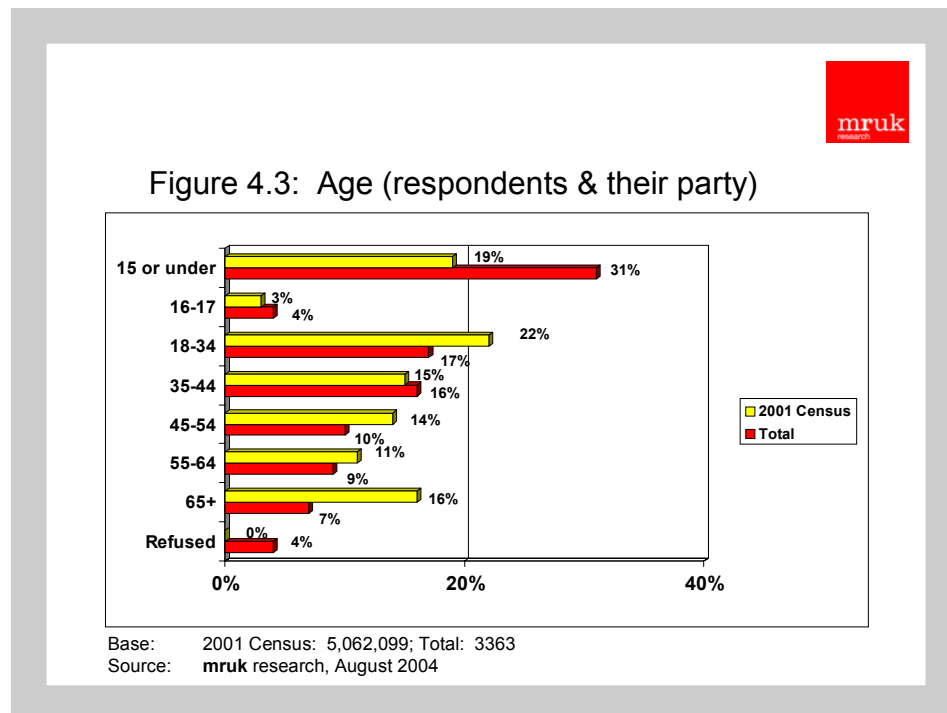
4.5 Within this sample 47% had children under 12 with them, 18% had older children aged 12 – 16 years with them and 43% had no children with them that day.

4.6 Each respondent was asked how many people were with them on the trip that day (including themselves) and the results are shown in Figure 4.2. As we would have expected, most of the respondents were in a group of between 2 and 4 people on their trip (69%). From the total sample only 11% were visiting the beach by themselves although this figure was much higher for Saltcoats where 23% were on their own. Few respondents were part of a large group.



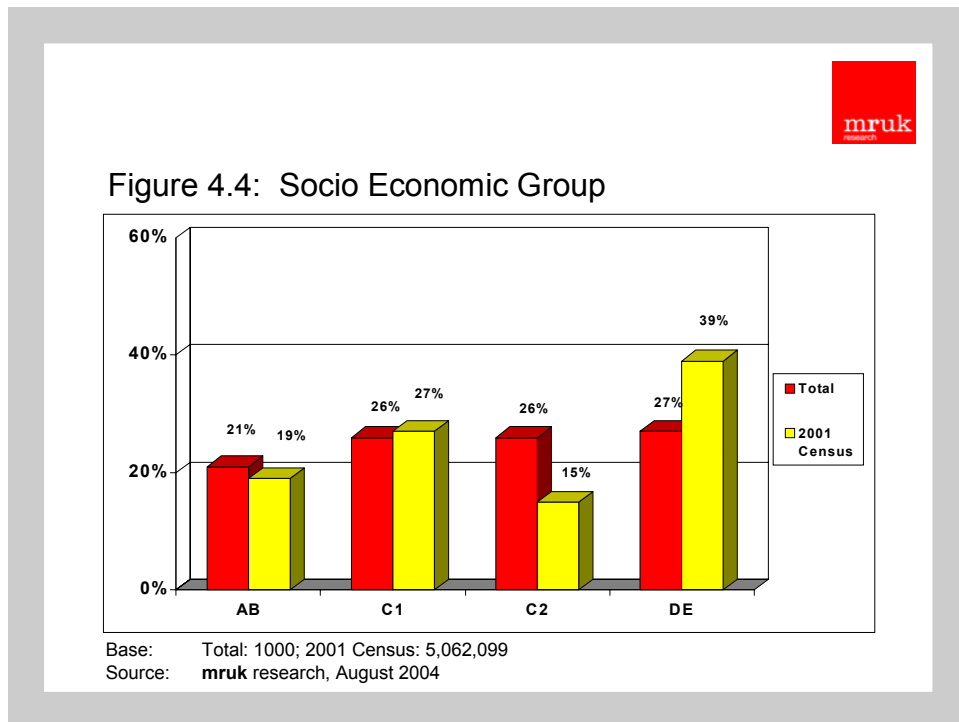
DEMOGRAPHICS

4.7 Figure 4.3 details the age of the respondents and other members of their party. The base number for this chart is 3,363 and this therefore includes the respondents and other members of their party. In other words, the respondents gave age information for the rest of their party by proxy. About a third were children under the age of 16. Comparison with the age profile of Scotland suggests that the age profile of beach users is somewhat younger with a higher proportion of children. This is consistent with the TNS Bathing Water Use in Scotland study.



4.8 In terms of gender a higher proportion of female respondents were interviewed, 56% compared with 44% male. Little difference can be noted between the three beaches in relation to gender. This sample of beach users is slightly different from the Census 2001 where 48% were male and 52% female. The higher proportion of females may be accounted for in two ways. It is possible there were more females at the beach or females may have been more willing to participate in the research.

4.9 Figure 4.4 details the socio economic group of the respondents, differences between the three beaches were negligible. These groups can be defined as follows:



- AB - Higher and intermediate managerial / administrative / professional
- C1 - Supervisory, clerical, junior / managerial / administrative / professional
- C2 - Skilled manual workers
- DE - Semi-skilled and unskilled manual workers, unemployed, in receipt of state benefit

4.10 The demographic profile of the ABC1 beach users is comparable with Scotland's population. However, there are fewer DE respondents and more C2 respondents in this sample.

CHAPTER FIVE RESEARCH FINDINGS

5.1 This section of the report will detail the key findings from the research and draw comparisons where appropriate from previous research and sub groups from this survey. Difference between sub-group e.g. the different beaches or demographics are discussed only where noteworthy. Also note that as in all quantitative surveys, rounding of data may result in the percentages from some charts adding up to between 99% and 101%.

JOURNEY TO THE BEACH

5.2 The respondents were asked where they had travelled from on the day they were interviewed. It is apparent from the findings that most had travelled distances within about one hour's drive time. At Ayr beach 26% of respondents were from Ayr itself, 25% from Glasgow and 10% from Kilmarnock. At Troon beach 30% were from Glasgow, 19% from Troon and 11% from Kilmarnock. At Saltcoats beach 22% were from Ardrossan, 18% from Glasgow and 14% from Saltcoats.

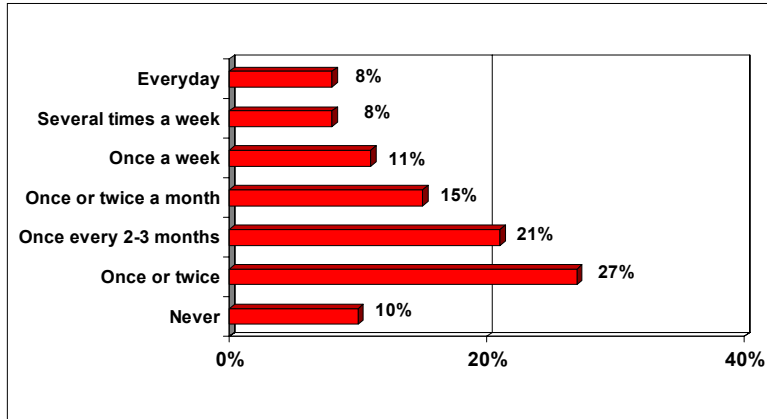
5.3 A map detailing the locations where people had travelled from can be found in Appendix 2. Clearly people had travelled from a wide range of places throughout Scotland and the rest of the UK.

5.4 The respondents were then asked where they had travelled from. They were also asked whether they were visiting or local residents. From the total sample there were 35% who were tourists or visitors. This figure was slightly higher at Troon (47%) and slightly lower in Ayr (23%).

FREQUENCY OF VISITING THIS BEACH IN THE LAST YEAR

5.5 Figure 5.1 details how often on average the respondents had visited "this" beach in the last 12 months during the summer months of June to September. A small proportion can be described as very frequent visitors visiting every day (8%) or several times a week (8%). However, the largest proportion of respondents had visited once every two to three months during the summer or less often during the summer months in the last year (48%).

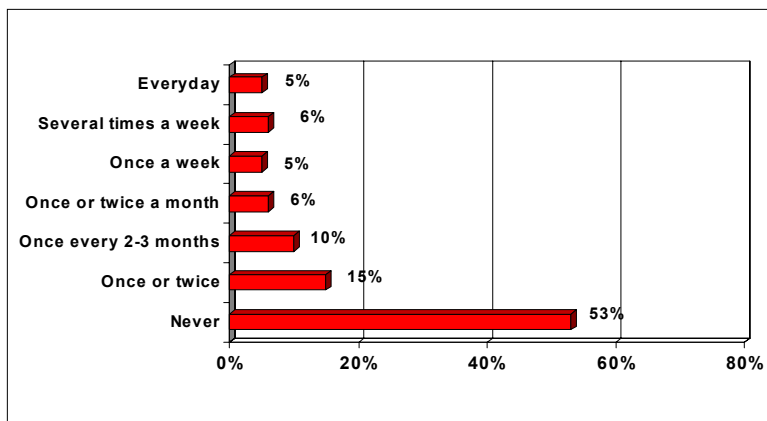
Figure 5.1: Visits to this beach - Summer months in last year



Base: Total: 1000
Source: mruk research, August 2004

5.6 Figure 5.2 provides comparable data for the winter months of October to May. Frequency of visiting “this” beach during those months is obviously much less frequent with 53% never visiting that beach during the winter months in the last year. There was a slight variation in Saltcoats where 22% of respondents still visited every day or several times a week.

Figure 5.2: Visits to this beach - Winter months in last year



Base: Total: 1000
Source: mruk research, August 2004

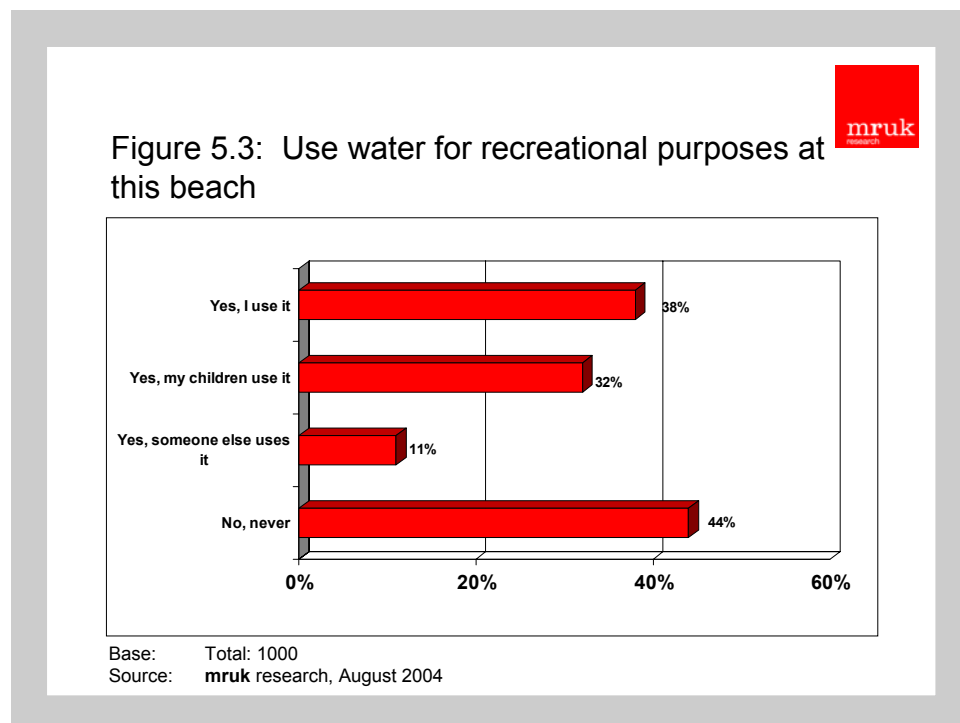
USE OF THE WATER AT THIS BEACH

5.7 The respondents were all asked whether they planned to or already had used the water that day for swimming, paddling or any other recreational activity prior to participating in the research. Those who responded affirmatively were classified as “bathers” and those who responded no were classified as “non bathers”. Of the total sample 40% said they had used or planned to use, the water today and can therefore be described as “bathers”. Initially a quota had been set to achieve 50% of the interviews with “bathers” but the poor weather conditions made this unfeasible.

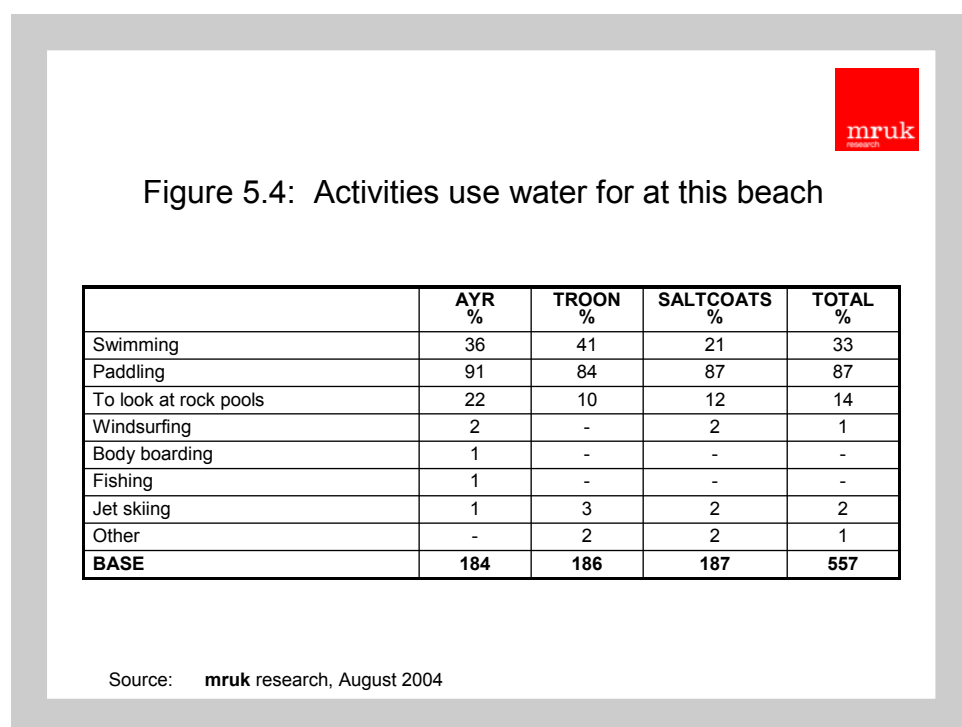
5.8 Those with families were more likely to have intended to use the water before they came, (40% compared with 19% who visited alone and 26% who visited with friends).

5.9 Furthermore, those who described themselves as visitors were more likely than residents to use or plan to use the water on the day of interview (47% and 37% respectively).

5.10 All respondents were subsequently asked whether they or anyone else who was with them usually used the water for recreational purposes when visiting “this” beach. Figure 5.3 shows that 38% of the respondents indicated that they personally used the water and 32% who said that their children used it. A further 11% of the total sample said that somebody else used it. There were 44% of the total sample who said that neither themselves or anybody else in their party ever used the water for recreational purposes.



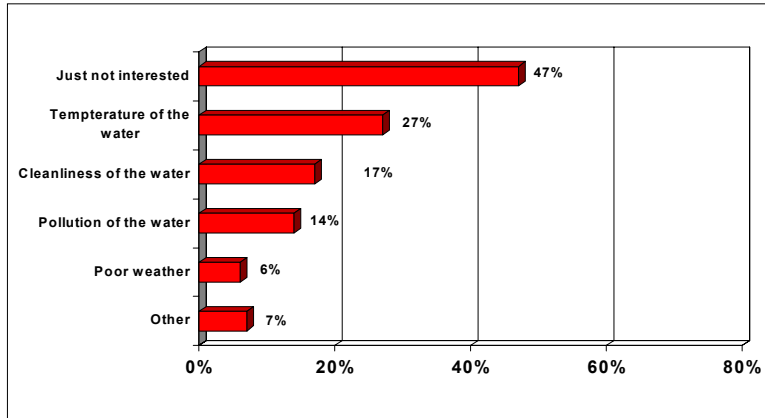
5.11 The respondents who used the water for recreational purposes were then asked specifically what activities they used the water for at this beach. The most popular activity at all three beaches (see Figure 5.4) was paddling with 87% overall having paddled at “this” beach. Swimming was also quite popular with 33% overall having swum at “this” beach (41% at Troon where more tourists and visitors were found). These findings are consistent with the TNS research. A small proportion of the sample (particularly in Ayr) looked at rock pools (14% overall). Very few respondents participated in other activities such as windsurfing, body boarding, fishing or jet skiing.



5.12 Indeed, even with prompting very few respondents said that they were participating in water sports on the day of the interview. This was true of 5% of the total sample of 1,000 respondents (only 45 people had participated in water sports).

5.13 Those respondents who had not used the water at this beach were asked why not. This question was completely unprompted and the respondents’ answers (see Figure 5.5) have been grouped together using a coding frame based on exactly what they said. Therefore, if someone said they didn’t use the water due to pollution it was coded “pollution”. For the largest proportion of the sample there was simply a lack of interest in using the water (47%). The temperature of the water was also a common reason for not using the water (27%). The cleanliness or pollution of the water was also seen as a problem with 17% citing the cleanliness and 14% citing pollution as a reason for not using the water. Few differences can be noted between the three beaches except that more respondents at Ayr did not use the water because of the temperature of the water and fewer because they were not interested.

Figure 5.5: Reasons for not using water at this beach



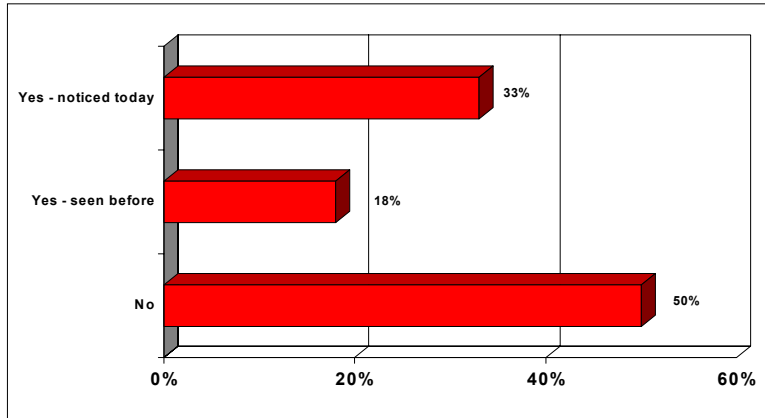
Base: Total: 1000
Source: mruk research, August 2004

5.14 The respondents were also asked whether they had intended to bathe or use the water at the beach today before they came. A total of 35% overall had intended to bathe or use the water on the day they were interviewed. There were some slight differences between the three beaches with only 30% having this intention at Ayr in comparison with 38% at the other two beaches. Visitors also had a stronger intention to use the water before coming, 40% compared with 33% of residents. In fact more respondents actually used the water than had planned to before they came to the beach with 40% having bathed or used the water.

AWARENESS AND IMPACT OF THE ELECTRONIC SIGN

5.15 All of the respondents were asked whether they had noticed the electronic sign providing information on bathing water quality on the day of the survey or whether they had actually seen it before. From the total sample (see Figure 5.6) there were a third who had noticed it on the day of interview and a further 18% who had seen it before. In line with the number of regular visitors to Saltcoats, this beach was slightly different with more respondents who had seen the sign before and fewer who had noticed it on the day of interview. From the total sample, half of the respondents had not noticed the electronic sign. It is worth noting that the respondents did not have to pass the signs to access any of the beaches.

Figure 5.6: Respondents observation of electronic sign

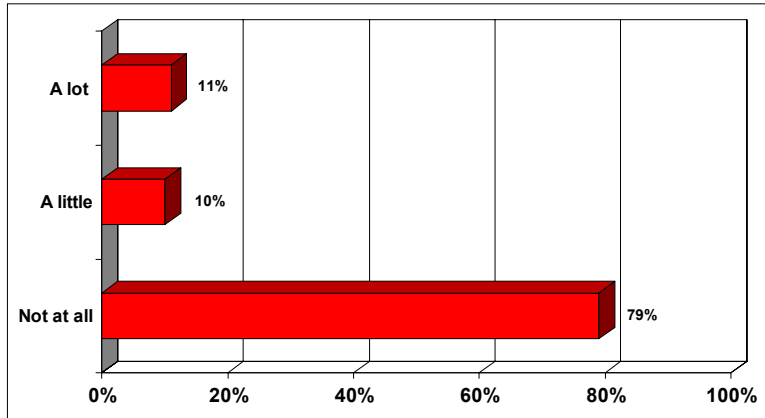


Base: Total: 1000
Source: **mruk** research, August 2004

5.16 Of the 501 respondents who had seen the sign there was a smaller proportion who planned to use or had used the water – 31% compared with 50% who had not seen the sign. This could be interpreted to suggest that seeing the sign made people less likely to use the water. However, there are a whole range of other factors that might affect whether or not the water was used and therefore it would be difficult to draw such a conclusion.

5.17 The respondents were then asked to what extent they thought the sign had influenced their decision about whether to bath, paddle or use the water that day (see Figure 5.7). Most respondents (79%) felt that the sign had not influenced their decision. A fifth of the total sample (21%) said the sign had influenced their decision about whether to use the water and this was true regardless of whether they had seen a message predicting good or poor water quality. Similarly residents and visitors appeared to have been influenced to the same extent.

Figure 5.7: Extent of sign influence on decision whether to use water

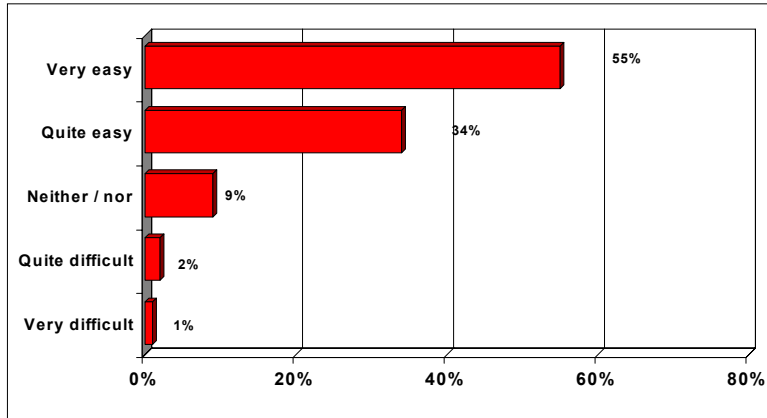


Base: 501 (Those who had seen the sign)
Source: mruk research, August 2004

5.18 All of the respondents were shown a card with the message displayed on the day of interview and asked how easy or difficult it was to understand (see Figure 5.8). The vast majority (89%) thought that the message was very or quite easy to understand. There was no variation in the ability to understand the message if there was a poor or good water quality prediction.

5.19 Those who had actually seen the sign were slightly more likely to perceive the message as very easy to understand, 62% compared with 47% who had not seen the actual sign.

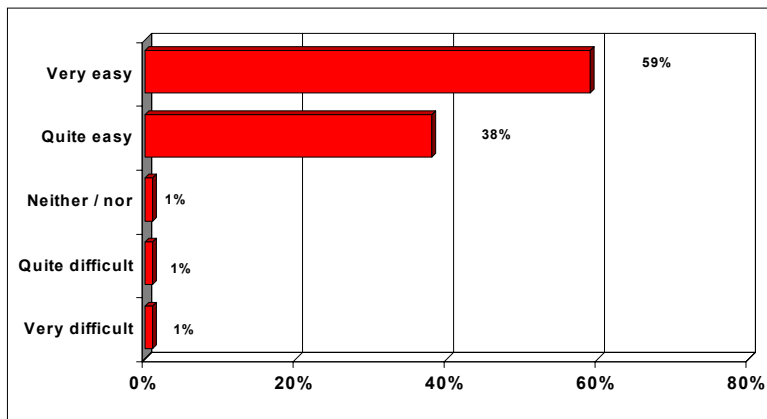
Figure 5.8: Difficulty understanding the message



Base: 1000
Source: mruk research, August 2004

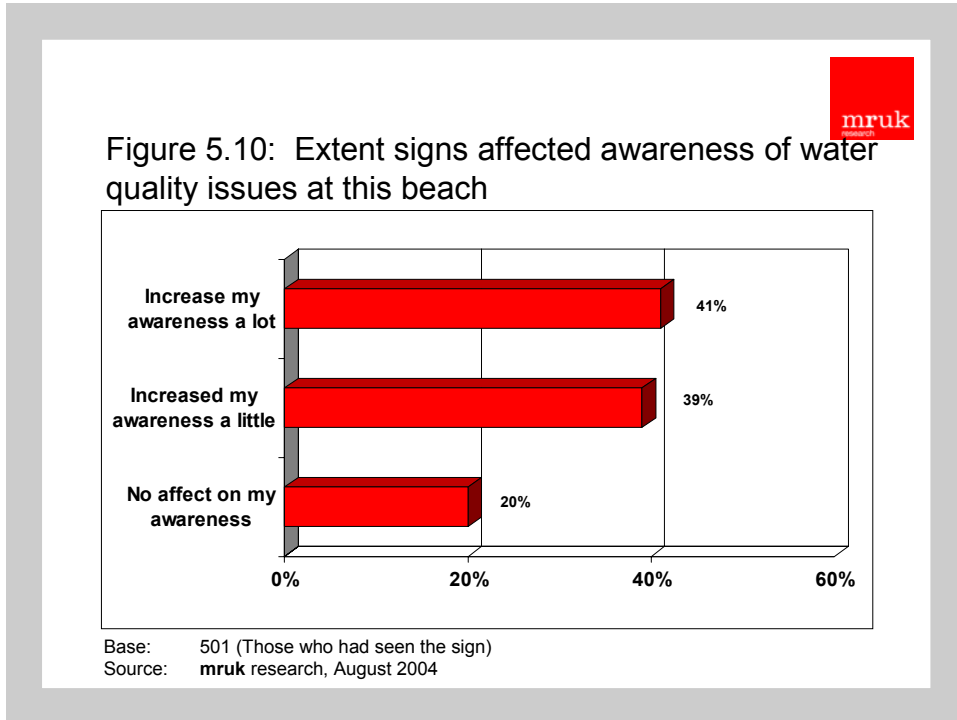
5.20 Figure 5.9 shows how easy or difficult today's message was to see and read amongst those who had seen the sign. There were 97% who found it very or quite easy to see and read.

Figure 5.9: Difficulty in seeing / reading message



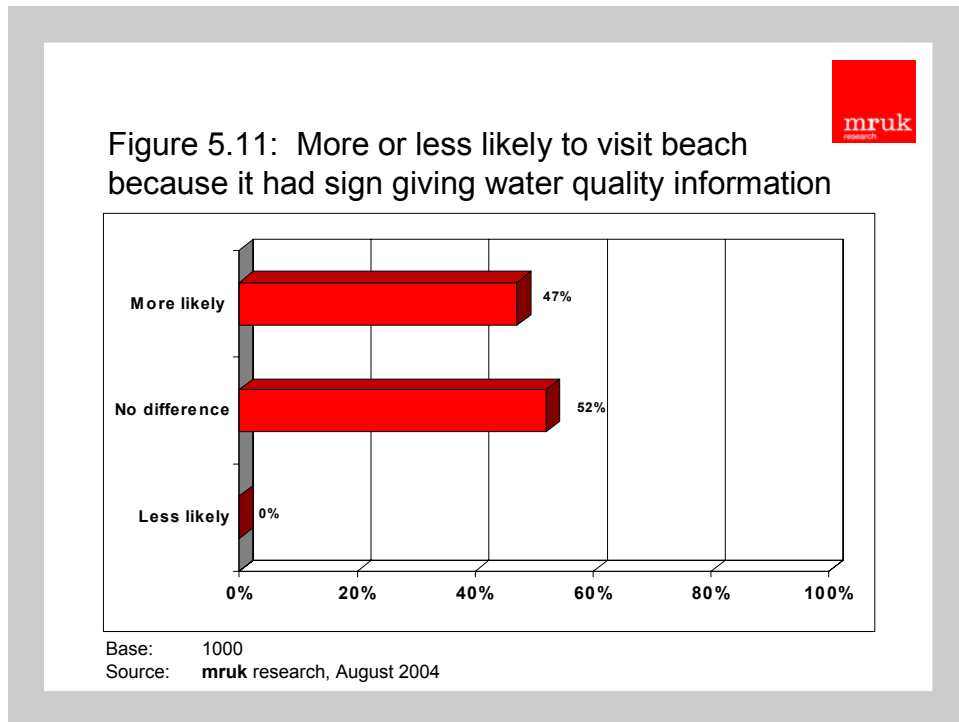
Base: 501 (Those who had seen the sign)
Source: mruk research, September 2004

5.21 It was also of interest to consider the extent to which the signs had affected the respondents awareness of water quality issues at “this” site. Figure 5.10 shows there were 20% of those who had seen the sign who said that the sign had no effect on their awareness (suggesting they already knew about the water quality issues). There were a further four in ten who said their awareness had increased a lot and four in ten whose awareness had increased a little.



IMPACT OF THE SIGN GIVING WATER QUALITY INFORMATION ON LIKELIHOOD OF VISITING THE BEACH

5.22 The respondents were asked whether they would be more or less likely to visit a beach because it had a sign giving water quality information (see Figure 5.11). Almost half thought that they would be more likely (47%), although many expected it to make no difference to them (52%).

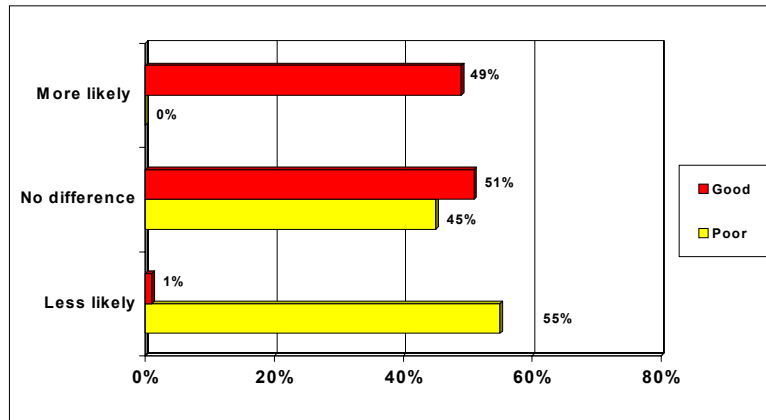


5.23 Indeed this is consistent with the TNS Bathing Water Use Study that found over half thought the signs would help in their decision to visit a beach or not.

5.24 The respondents were also asked whether they would be more or less likely to visit if they knew in advance that the water quality prediction was going to be good (see Figure 5.12). In this instance a similar proportion said that they would be more likely to visit (49%) with again most respondents feeling that it would make no difference to them (51%).

5.25 However, when asked whether they would be more or less likely to visit if they knew in advance that the water quality prediction was poor there was a higher proportion who thought that they would be less likely (55%) and a lower proportion who thought it would make no difference to them (45%).

Figure 5.12: More or less likely to visit if knew in advance water quality prediction good or poor



Base: 1000
Source: mruk research, August 2004

5.26 From this we can conclude that a poor water quality prediction is slightly more likely to have an impact on whether respondents would visit a particular beach than a good water quality prediction.

PROVISION OF OTHER INFORMATION ON SIGNS

5.27 It is possible that these signs could be used for other messages and the research also determined the level of interest from the respondents in types of information (see Figure 5.13). The data in the following chart is shown as mean scores where 1 = very interested and 5 = not at all interested. All respondents were asked this question and therefore the Base is 1000. We can see that there is low level interest in information about the number of good or poor water quality days so far this season and the average water temperature. However, there is less interest in information about the number of days since the last poor water quality event or the internet address for SEPA's bathing waters page.



Figure 5.13: Interest in different types of information (mean scores)

	TOTAL
Number good water quality days so far this season	2.4
Number poor water quality days so far this season	2.4
Average water temperature	2.4
Days since last poor water quality event	2.7
Internet address for SEPA bathing waters page	3.1
BASE	1000

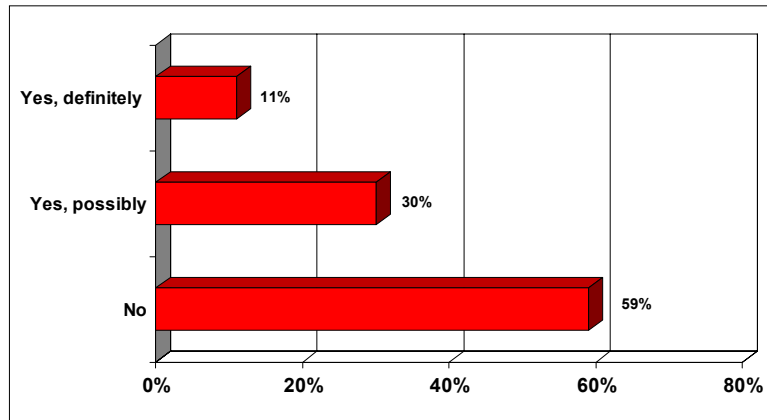
Source: mruk research, August 2004

5.28 There was slightly more interest in the suggested types of information among those who had seen the sign.

5.29 Respondents were asked whether, if there was a SEPA telephone line listing water quality at other Scottish beaches, they would use it to find out water quality in advance. Figure 5.14 shows that about one in ten respondents thought that they would definitely use such a service and a further 30% thought that it would possibly be of interest to them.

5.30 Visitors were more likely to express an interest in such a service than residents (51% and 35% respectively).

Figure 5.14: Expectation of using SEPA telephone line to check beach water quality

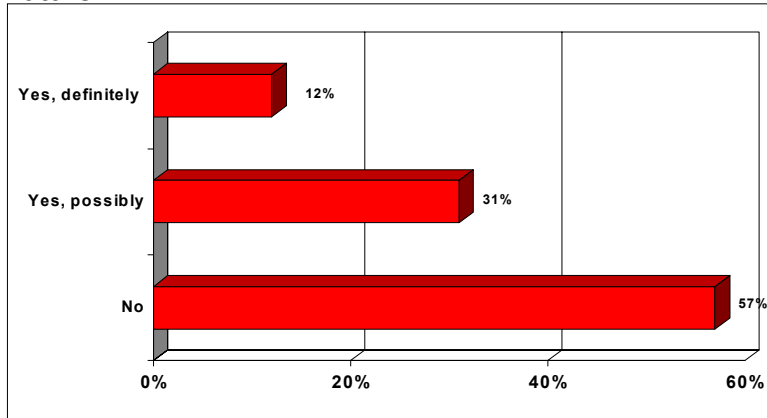


Base: 1000
Source: mruk research, August 2004

5.31 There was relatively low level awareness that the SEPA website detailed bathing conditions at Scottish beaches (6% of the total sample) due to the fact that the SEPA website had not been heavily advertised. Of these 60 people, 40 had seen the electronic sign. The 60 respondents who were aware that the SEPA website detailed information about bathing conditions were asked whether they had used the website before coming to the beach on the day of interview. Of these 60 respondents only 6 (10%) had used the website (please note caution should be taken when referring to this data as it is derived from a Base of only 60 people).

5.32 All of the respondents were asked whether they would use the SEPA website in the future to establish bathing conditions at a particular beach (see Figure 5.15). A very similar reaction was found to the expectation of using the SEPA telephone line. 12% said they were definitely interested with a further 31% saying they would possibly use it.

Figure 5.15: Expectation of using SEPA website in the future



Base: 1000
Source: mruk research, August 2004

CHAPTER SIX CONCLUSIONS

6.1 Over half of the respondents had seen the electronic sign at the beach they visited. Given that visitors to these beaches could access the beach without passing the signs (some beaches have multiple access points) this can be viewed as a positive result. Amongst those who had seen the signs, the vast majority thought they were easy to see and read (82%) or understand (89%). These are positive indicators for the effectiveness of electronic signs as a means of informing beach users about bathing water quality.

6.2 Of those who had seen the sign only 20% thought that it had influenced their behaviour. Despite this, 80% thought it had increased their awareness of water quality issues at the beach where they were interviewed. Yet these respondent perceptions are not hard and fast indicators of the true impact of the messages on beach users behaviour – they are purely subjective.

6.3 In the total sample, 40% had bathed on the day of interview – higher than the 35% who had intended to use the water. Amongst those who had seen the electronic sign, 28% intended to use the water and 31% actually had.

6.4 There was low level interest in the signs being used to provide further information related to water quality e.g. number of good/poor water quality days this season. Similarly there was limited interest in finding out about bathing conditions from the SEPA website (12% definitely interested).

6.5 The presence of an electronic sign giving water quality information at a beach was generally well received; 47% thought they would be more likely to visit and 52% thought it would make no difference. Advance knowledge of poor water quality led to 55% being less likely to visit and 52% thought it would make no difference. Advance knowledge of good water quality made 49% more likely to visit although for 51% it would make no difference.

APPENDIX ONE

QUESTIONNAIRE

MARKET RESEARCH UK LTD

City Wall House
 32 Eastwood Avenue
 GLASGOW G41 3NS



<p><u>BEACH USERS</u> <u>(SA10838)</u></p>

<p>OFFICE USE Serial Number</p>

NAME _____

ADDRESS _____

POSTCODE _____

TELEPHONE _____

INTERVIEWER ID NUMBER

--	--	--	--

QUESTIONNAIRE NUMBER

--	--	--	--

AGE

--	--

Social class AB 1 Occupation of Chief Wage Earner: _____

 C1 2 _____

 C2 3 _____

 DE 4 _____

Good morning/afternoon/evening. My name is _____ from Market Research UK Limited. We have been commissioned by the Scottish Executive to carry out a survey, about your visit here today. You have been selected at random for this survey, and I wonder if I could ask you some questions? It should take approximately 10 minutes, and all the answers you give will be kept completely confidential.

This interview has been conducted within the Code of Conduct of the Market Research Society.

INTERVIEWER SIGN _____

INTERVIEWER PRINT _____

DATE OF INTERVIEW _____

SQ1	Do you plan to / have you used the water today for swimming, paddling or any other recreational activity?			ROUTE
	Yes (Bather)		(26) 1	CHECK
	No (Non-bather)		2	QUOTA
SQ2	Do you have any children with you today?			ROUTE
	Yes – under 12	1	(27)	CHECK
	Yes – 12-16 yrs	1	(28)	QUOTA
	No children	1	(29)	
SQ3	Do you plan to / have you participated in any water sports whilst at the beach today? (Surfing, body boarding, wind surfing)			ROUTE
	Yes		(30) 1	CHECK
	No		2	QUOTA

Q1.	Where have you travelled from today?			ROUTE
		(31)	(32)	
	Ardrossan	0	1	Q2
	Ayr	0	2	
	Castle Douglas	0	3	
	Dalkeith	0	4	
	Dumfries	0	5	
	Edinburgh	0	6	
	Glasgow	0	7	
	Irvine	0	8	
	Kilmarnock	0	9	
	Musselburgh	1	0	
	Paisley	1	1	
	Saltcoats	1	2	
	Stevenston	1	3	
	Troon	1	4	
	Other (specify)			
<hr/>				
Q2.	Are you resident there or visiting?			ROUTE
			(33)	Q3 AND Q3A
	Resident		1	
	Visitor		2	
Q3.	SHOWCARD 1. How often, on average, have you visited this beach in the last 12 months in the summer months of June– September? (RECORD IN COL A)			ROUTE
Q3a	SHOWCARD 1. How often, on average, have you visited this beach in the last 12 months in the winter months of October – May? (RECORD IN COL B)			
		COL A	COL B	
		SUMMER	WINTER	
		(34)	(35)	
	Everyday	1	1	Q4
	Several times a week	2	2	
	Once a week	3	3	
	Once or twice a month	4	4	
	Once every 2-3 months	5	5	
	Once or twice	6	6	
	Never	7	7	
Q4.	Do you or anyone else with you usually use the water for recreational purposes when you visit this beach?			ROUTE
	Yes, I use it	1	(36)	
	Yes, my children use it	1	(37)	GO TO Q5
	Yes, someone else uses it	1	(38)	
	No, never	1	(39)	GO TO Q6

Q5.	What type of activities do you (or others with you) use the water for?			ROUTE
	Swimming	1	(40)	
	Paddling	1	(41)	
	To look at rock pools	1	(42)	
	Windsurfing	1	(43)	
	Body boarding	1	(44)	
	Fishing	1	(45)	
	Jet skiing	1	(46)	Q7
	Other (specify)			
	<hr/>	(47)	(48)	
		(49)	(50)	
	<hr/>			
Q6.	Why don't you use the water here? DO NOT PROMPT			ROUTE
	Just not interested	1	(51)	
	Temperature of the water	1	(52)	
	Cleanliness of the water	1	(53)	
	Pollution of the water	1	(54)	Q7
	Poor weather	1	(55)	
	Other (specify)			
	<hr/>	(56)	(57)	
		(58)	(59)	
	<hr/>			
Q7.	Did you notice the electronic sign providing information on bathing water quality? Had you seen it before?			ROUTE
			(60)	
	Yes – noticed today	1		Q8
	Yes – seen before	2		
	No	3		
Q8.	Before you came to the beach today were you intending to bathe, paddle or use the water at all?			ROUTE
			(61)	
	Yes	1		Q9
	No	2		
	IF CODED 1 OR 2 AT Q7 ASK Q9, OTHERS GO TO Q10			
Q9.	SHOWCARD 2. To what extent did the sign influence your decision about whether to bathe, paddle or use the water?			ROUTE
			(62)	
	A lot	1		Q10
	A little	2		
	Not at all	3		

ASK ALL

Q10. **SHOWCARD 3.** How easy or difficult to understand is today's message? **(Read out if necessary)** **ROUTE**

	(63)		
Very easy	1		
Quite easy	2		Q11
Neither nor	3		
Quite difficult	4		
Very difficult	5		

Q11. **SHOWCARD 3.** How easy or difficult is today's message to see and read? **ROUTE**

	(64)		
Very easy	1		
Quite easy	2		Q12
Neither nor	3		
Quite difficult	4		
Very difficult	5		

Q12. **SHOWCARD 4.** To what extent have the signs affected your awareness of water quality issues at this site? **ROUTE**

	(65)		
Increased my awareness a lot	1		Q13
Increased my awareness a little	2		
No affect on my awareness	3		

Q13. **SHOWCARD 5.** These signs could be used for other messages. How interested would you be in the following types of information? **ROUTE**

	Very Interested	Quite Interested	Neither / Nor	Not Very Interested	Not at all Interested	
Number good water quality days so far this season	1	2	3	4	5	(66)
Number poor water quality days so far this season	1	2	3	4	5	(67) Q14
Average water temperature	1	2	3	4	5	(68)
Days since last poor water quality event	1	2	3	4	5	(69)
Internet address for SEPA bathing waters page	1	2	3	4	5	(70)

Q14. If there was a SEPA (Scottish Environment Protection Agency) telephone line listing other water quality at Scottish beaches would you use it to find out water quality in advance? **ROUTE**

	(71)		
Yes, definitely	1		Q15
Yes, possibly	2		
No	3		

Q15. Are you aware that the SEPA (Scottish Environment Protection Agency) website details bathing conditions at Scottish beaches? **ROUTE**

	(72)		
Yes	1		GO TO Q16
No	2		GO TO Q17

Q16. Did you use it before coming here today? **ROUTE**

	(73)		
Yes	1		Q17
No	2		

Q17. Would you use it in the future? **ROUTE**

(74)

Yes, definitely 1 Q18

Yes, possibly 2

No 3

Q18. If you knew that a particular beach had a sign giving information on water quality would you be any more or less likely to visit that particular beach? **ROUTE**

(75)

More likely 1 Q19

No difference 2

Less likely 3

Q19. If you knew in advance that the water quality prediction was good would you be any more or less likely to visit the beach? **ROUTE**

(76)

More likely 1 Q20

No difference 2

Less likely 3

Q20. If you knew in advance that the water quality prediction was poor would you be any more or less likely to visit the beach? **ROUTE**

(77)

More likely 1 Q21

No difference 2

Less likely 3

Q21. On this visit today are you.... **READ OUT** **ROUTE**

(78) (79)

Alone 0 1 Q22

With family 0 2

With friends 0 3

With friends & family 0 4

With an organised group 0 5

Other (specify)

Q22. Including yourself, how many people are with you? **ROUTE**

WRITE IN NUMBER: (80) (81)

--	--

Q23

Q23. What are their ages and how many in each category? **INCLUDE RESPONDENT** **ROUTE**

	One	Two	Three	Four	Five	More than Five	None	Not sure	
Under 5	1	2	3	4	5	6	7	8	(82)
5-9	1	2	3	4	5	6	7	8	(83)
10-15	1	2	3	4	5	6	7	8	(84)
16-17	1	2	3	4	5	6	7	8	(85)
18-34	1	2	3	4	5	6	7	8	(86)
35-44	1	2	3	4	5	6	7	8	(87)
45-54	1	2	3	4	5	6	7	8	(88)
55- 64	1	2	3	4	5	6	7	8	(89)
65+	1	2	3	4	5	6	7	8	(90)

Q24

Q24. Gender **ROUTE**

(91)

Male 1 Q25

Female 2

Q25. SEG

OCCUPATION OF CHIEF INCOME EARNER

Q26

(Probe for further details only when necessary to determine SEG)

POSITION/RANK/GRADE

QUALIFICATIONS

NO. OF STAFF RESP. FOR

AB	(92) 1
C1	2
C2	3
DE	4

THANK & CLOSE, INTERVIEWER RECORD

Q26. Beach

ROUTE

Ayr (South)
Troon (South)
Saltcoats

(93)
1
2
3

Q27

Q27. Day

ROUTE

Monday
Tuesday
Wednesday
Thursday
Friday
Saturday
Sunday

(94)
1
2
3
4
5
6
7

Q28

Q28. Weather – record

ROUTE

Raining
Not raining

(95)
1
2

Q29

Q29. Time

ROUTE

Morning – up to 1pm
Afternoon – 1pm – 5pm

(96)
1
2

Q30

Q30. Message on sign at time of interview

ROUTE

Good water quality is predicted today
Bathing not advised today risk of poor water quality
Welcome to...(name of beach)

(97)
1
2
3

APPENDIX TWO

**MAP OF WHERE VISITORS TRAVELLED
FROM**

