THE RIVER RESTORATION PROJECT

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the River Restoration Project

RIVER SKERNE PUBLIC PERCEPTION SURVEY: STAGE TWO

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SUMMARY

- The report presents the results of a study commissioned by the River Restoration Project on the public perception of the benefits of restorating a section of the River Skerne in Darlington. A quantitative survey of 252 local residents was undertaken which achieved a response rate of 58%.

- The survey aimed to describe the existing use and perceptions of the river and surrounding parkland and to assess the public perception of the proposed river restoration scheme. It further aimed to provide information on the monetary values placed both on visits to the current river and to the site after restoration. An additional objective was to contribute to the public consultation exercise on site design.

- Findings from the survey indicate that the river is frequently used by local residents for a number of informal recreational activities and also as a means of access to elsewhere.

- The main attractions of the site were said to be the green open space and natural environment of the river, trees and other vegetation. The area was valued as a quiet place to visit and to enjoy the wildlife. The negative aspects of the site included the problem of dog fouling, the perceived poor quality of the river water, rubbish and litter, and a continuing problem of vandalism.

- Various factors were seen to influence respondents' perception of the site, these being: sex, age, income, level of education, proximity to the river, and whether they visited the river.

- Views on specific aspects of the river area were mixed. Overall, features such as the grass areas, the river as a habitat for wildlife and as an open space for recreation was seen as good, while other features such as the water quality, the cleanliness of the area generally, maintenance of the footpaths, and the amount and type of plants and trees were seen less favourably. Opinions on aspects such as flooding, the concrete river banks and the shape of the river channel tended to be mixed.

- Proposals for the river restoration scheme were well received by the majority of respondents and were perceived as a chance to improve the area generally. Many approved the provision of additional planting and landscaping, the meanders in the river and the new wetland and pond areas.

- The restoration was seen as offering increased opportunities for recreation and for wildlife and wildlife habitats. Moreover, it was felt that the site would offer educational opportunities for local school children as well as adults.

- The majority of respondents were in favour of an additional footbridge being provided across the river, along with additional footpaths. This was seen as opening up access to parts of the river and offering the chance of a circular walk around the river.

- The issue of safety was of concern to local residents, both personal safety from attack when visiting the river and safety from falling into the river and from flooding. In addition, some respondents felt that an additional footbridge and increased planting of trees and bushes would encourage crime in the area, offering an escape route and places to hide for burglars.

- Although the small sample size of the survey population is considered unreliable for a CVM study, findings from both enjoyment valuation and willingness-to-pay methods used in the survey suggest that there is a significant monetary benefit to be obtained from restoring the river. This would be both in terms of benefits from increased visits by respondents, and also by new visitors to the area. The scheme would increase respondents' enjoyment value of visiting the river and park area, and respondents would be willing to pay significant sums in national and local taxes each year for the River Skerne scheme.

- Local residents placed a high importance on being consulted over schemes such as the one proposed. Moreover, one third of respondents expressed an interest in taking an active part in decision making and in management of the site, and the establishment of a local community group or forum for this purpose could be considered.

1. INTRODUCTION

This report presents the results of a study commissioned by the River Restoration Project on the public perception of the benefits of river restoration. The River Skerne in Darlington was selected as one of two initial demonstration projects which aim to put into practice state-of-the-art restoration techniques on severely damaged rivers in the UK.

Funding for the project has come partly from the European Commission LIFE programme and from other organisations in partnership with the River Restoration Project, such as the National Rivers Authority, the Countryside Commission, English Nature, Northumbrian Water and the Department of Agriculture for Northern Ireland. One of the key partners in t he project is Darlington Borough Council (DBC) and many of the project proposals coincide with the Council's own, as identified in its most recent Local Plan. The Plan acknowledges the importance of incorporating the environmental dimension into planning including "due regard to" Local Agenda 21 (DBC 1994). It also emphasises a commitment to the protection and enhancement of the environment, a focus on the rehabilitation of despoiled land, development and enhancement of the urban green space network, and an overarching concern for sustainable use and management. All of these aspects fall within the objectives of the River Restoration Project.

An important part of the Skerne project is the assessment of a longstanding proposal by Darlington Borough Council of the possibility of constructing an additional footbridge across the river downstream of the existing bridge at Hutton Avenue. Related to this proposal is another to extend the footpath and cyclepaths in the study area. The public perception studies also therefore include these issues as well as the public's attitudes to the various elements of the River Restoration Project.

1.1 Aims and objectives of the research

Work on the project falls into two stages. Stage 1 involved a qualitative scoping study which explored the issues of concern to key informants in the study area (Fordham 1994). Stage 2 consists of 'before and after' surveys of the public perception of the site. Thus the objectives of the public perception component of the project are:

- To describe and assess the public perception of the River Skerne restoration site both before works are initiated and once they have been completed;
- To contribute to the public consultation exercise on site design. The consultation exercise deals with both the river restoration scheme and the associated proposals of Darlington Borough Council to provide an additional footbridge and foot and cycle paths;
- To investigate the value of the river to local people in economic terms.

This report presents the findings of the first part of Stage 2, before restoration. The aims of this survey were:

(i) To describe existing perceptions of the river and the landscape around the river in the restoration site area.

(ii) To provide information about monetary values (using contingent valuation techniques) placed on the current park and river landscapes.

(iii) To assess the public perception of the proposed river restoration scheme and the monetary values placed on the river and park after restoration.

The survey techniques should enable changes before and after restoration to be assessed.

One of the perceived limitations of the Stage 1 study was the limited contact with the wider community; this second survey will go some way to redress the balance. It is hoped that results from the Project will help influence the design and development of similar future projects, locally, nationally and internationally, as well as contributing to Britain's national policy in this area.

1.2 Description of the area

The River Skerne is a tributary of the River Tees. The river runs through Darlington town centre and has in the past been responsible for considerable flooding in the town. Over the years a number of flood defence works have been carried out. Although parts of the study site are still vulnerable to flooding, the existing flood defences protect Darlington from floods of up to 1 in 100 years frequency. There is, however, a low probability of flooding to property in the site area.

The River Restoration Project covers a section of the River Skerne in Darlington between Skerne Bridge and Haughton Bridge, some 2.08 km in length (Figure 1.1). The character of the river has been radically altered over time due to the influence of industrial and residential development, amenity planting and river improvement works (SGS Environment 1994). The channel of the Skerne is now almost entirely human-made throughout its length. The project site itself includes both old and existing industrial areas and a trading estate. The residential areas comprise older nineteenth century terraced housing, post-war social housing and 1980/90's mixed housing developments.

The river was once a main industrial artery of the area and the project site demonstrates a rich past industrial heritage. Most notable is the evolution of the railways with the site of the first railway company (the Stockton and Darlington Railway Company of 1825) and Robert Stephenson's railway works. The Skerne Bridge is famous for its appearance on the current five pound note, hence its local name of the Five Pound Note Bridge. The river also at one time boasted a number of mills for such activities as corn grinding, spinning linen yarn, woollens, and grinding optical glasses (Lee 1959).

On the north of the river there is the locally famous 'Rockwell' spring and on the southern bank the perhaps less well-known 'Dropwell'. Durham Wildlife Trust manages the Rockwell Nature Conservation Area which is also included in the project study area.

1.3 Research Methods - Population and sampling

A structured quantitative survey of local residents in Darlington was undertaken. The population sample for the survey was defined as those households living in roads, or parts of roads, within 400 metres from the section of the River Skerne between Skerne Bridge and Haughton Bridge (Figure 1.1). Large-scale maps were consulted to select which roads or parts thereof fell within the sample area. As there were few residential properties within 400 metres south of the river (being largely a trading estate), the boundary was extended to include those properties between the river and Haughton Road.

A systematic random sample was drawn from the electoral register for Darlington in order to ensure that the sample was representative of the population as a whole and that the probability of selection was proportionate to the number of electors at each address. The total population within the study area was 4,706. As 600 addresses were felt to be necessary to achieve a target of 250 interviews, a sampling interval of eight was arrived at (4,706 divided by 600) and every eighth address was selected for inclusion in the survey.

Interviewers were instructed to approach members of the household aged 18 years or over only and to try to obtain a balance between male and female respondents as far as possible. Interviewers were instructed to call at different times of the day and week in order to target respondents who were not home in the daytime or only available at weekends.

1.4 Questionnaire design

Response from the earlier scoping study (Fordham 1994) and from a public meeting in December 1994 helped to formulate the structured questionnaire. Initial site visits carried out in August and September 1994 and January 1995 to observe the river area and to gain background knowledge of the site were also valuable in questionnaire design. A number of people and organisations were also contacted by telephone, and meetings and interviews with key informants held (Fordham 1994). Further historical background research was carried out in Darlington Library Reference and Local Studies Sections.

An initial pilot survey was undertaken in January 1995 to test the effectiveness of the questionnaire. Seven interviews were obtained, some of which took up to two hours. It was subsequently decided to reduce or delete some questions, or parts of questions, and therefore substantially shorten the length of the questionnaire from 75 to 57 questions. A copy of the revised questionnaire is included as Appendix 1.

A number of questions were left 'open' to allow respondents to add additional comments regarding certain issues and aspects of the river and proposed scheme. Where possible these comments were recorded verbatim by the interviewers to allow respondents to express their opinions in their own words. Some of these comments have been quoted in the report to help illustrate the points under discussion.

One of the problems with designing the questionnaire was in the wording of some of the questions. As the term river 'restoration' implies that the river is degraded this was thought

to be problematic as it would possibly lead the respondents. Therefore the phrasing of questions referring to restoration was altered to 'changing the river', which implied neither negative or positive connotations.

1.5 Fieldwork

The fieldwork for the survey was carried out by eight local interviewers. Introductory letters were initially delivered to each address selected and follow-up calls were made to arrange an interview. Fieldwork began on 8th February 1995 and was terminated on 16 March. A total of 252 interviews was completed.

The average length of interviews was 47 minutes, although this varied depending upon such factors as respondents' age, level of interest and the time of day. Older respondents tended to take longer in completing the interviews as they needed more time to think about their answers. The shortest interview time was 25 minutes, while the longest was 95 minutes. The majority of interviews were carried out in the afternoons or evenings.

The target number of interviews per interviewer was 32. However, two interviewers only completed a few interviews before being forced to withdraw from the survey for personal reasons, while two interviewers carried out over 50 interviews each. The majority of the interviews (80%) were carried out during the week (most popular day being Wednesday), with the rest at weekends - the vast majority of these on Saturdays.

1.6 Response

A total of 615 addresses were finally targeted during the survey, although forty-one of these were not approached as the desired number of interviews were obtained. Five hundred and seventy-four addresses were therefore targeted. Eight addresses proved to be empty properties and no contact was made at 134 addresses, despite up to four follow-up calls. However, fifty-six addresses were only approached once and no follow-up calls made, due to the interview target being reached.

After subtracting the no contact and empty property addresses the response rate was calculated from the 432 valid addresses approached. The final response rate was 58%, although response varied from street to street, and improved with closer proximity to the river. The refusal rate was therefore 42% (Table 1.1).

2. CHARACTERISTICS OF RESPONDENTS

The respondents interviewed in the survey demonstrated a variety of characteristics and came from diverse backgrounds. They therefore offered a range of perceptions and opinions on the River Skerne and on the proposal for restoring the river. The characteristics of respondents are summarised in Table 2.1.

2.1 Sex, age, level of education and income

The sample population was virtually equally divided between male and female respondents, with males representing 51% and females 49% respectively. The majority of these (70%) were aged between 30 to 65 years while 12% were aged under 30 and 19% were aged over 65. Two percent of respondents were still in full-time education while the majority (94%) had completed their education at 18 years or earlier and 53% had completed their education at or by the age of 15. Only 6% had continued in full-time education after the age of 18.

Respondents displayed a wide range of incomes. A quarter of respondents said that they did not know the combined annual income of their households and almost the same proportion refused to give information on this. From the 189 valid cases who did indicate their household's income, the mean figure was between £15,001 and £20,000. For twelve percent of households the total annual income was below £5,000, while for nine percent it was over £25,000.

2.2 Tenure, length of resistance and proximity to the river

Around three quarters of those interviewed owned their own home. Fifteen percent rented their home from the local authority while 8% either rented from private landlords or lived with members of their families. Length of residence in the area varied from less than one year to 92 years, with the mean length of residence being 17 years.

The majority of respondents (66%) lived over 250 metres from the river with only 7% saying that they lived in riverside properties. This could, however, be questioned as none of the properties were directly on the river, although around a quarter were within 250 metres.

The population sample was further divided into four areas, see Figure 1.1. Around a quarter of respondents lived in the area bordered by Albert Road Bridge, the north bank of the River Skerne, North Road and Fitzwilliam Drive (Area 1). In addition, a few respondents lived in parts of streets on the west side of North Road. Twelve percent of respondents lived in the area to the northeast in the small collection of roads from Fitzwilliam Drive to the river, Area 2, while half of the total number of respondents lived in Area 3. This latter area comprised streets on the north bank of the river roughly from Wylam Avenue in the west to Haughton Bridge in the east and reaching back around 400 metres from the river. The final group (16%) lived in Area 4 to the south of the river between Haughton Bridge and Albert Road Bridge and stretching to around 400 metres from the river.

2.3 Composition of households

Respondents were asked how many people were living in their households. The majority of households (81%) comprised between two to four persons while 10% included more than four people and eight percent were people living alone. The mean number of people per household was 3.

A breakdown of the number of persons within the households was also calculated. This showed that almost half the households contained children aged up to 17 years, with 28% including children aged 10 years and under. Sixteen percent of households were made up of people aged 65 and over only. Respondents in the youngest age group (under 30) not surprisingly showed the highest proportions with children aged 10 and under in their households.

2.4 Membership of environmental or community groups

A way of ascertaining the level of interest in environmental and other local issues is by studying the level of support for various environmental and community groups. It has been hypothesized in previous studies by FHRC that attitudes to the local environment can influence respondents' perception of schemes, for example for flood defence, and others such as that proposed for the River Skerne (Tunstall & Fordham 1990).

Membership of, or support for, local community or environmental groups in Darlington was low compared with results from previous studies carried out by the FHRC (Tunstall et al 1994). The most popular environmental group was the National Trust, but only four percent of respondents were members of this group and other groups showed even smaller percentages of membership. The highest membership of a local group was that of a sports club, at 11%, while some respondents listed other groups that they belonged to including the Royal Society for the Prevention of Cruelty to Animals (RSPCA), the National Society for the Prevention of Cruelty to Children (NSPCC), the National Canine Defence League, motor caravan clubs and the Neighbourhood Watch.

All respondents, except one, who said that they support the various groups mentioned were visitors to the river, although two non-visitors did say that they supported 'other' groups.

3. USE OF THE RIVER AND SURROUNDING PARKLAND

Results from the survey demonstrated the importance of the River Skerne as a recreational resource for local residents in Darlington. This inevitably affects the value residents attach to the river and surrounding open space, and can therefore affect perception and acceptance of river management measures generally. Respondents were, therefore, questioned on the current use they made of the river and parkland area.

3.1 Frequency of visits

Of the 252 respondents interviewed, 85% said that they had visited the section of the River Skerne included in the study area in the last twelve months. Of the 15% who said they had not visited the river in the last year, 44% said that they had visited previously to this. The most common reasons given by respondents for not visiting the river were old age, disability, lack of interest, and the perception that the river was very dirty. Slightly more respondents with children aged 10 or under in their households visit the river than other groups. Moreover, all those respondents with an annual household income of £20,001 or over visit the river.

Frequency of visits to the river was quite high (Figure 3.1 and Table 3.1). Almost a quarter of those respondents who have visited the river in the last year visit every day in the summer months, although this falls to 19% in winter. Moreover, 63% of respondents visit at least weekly in summer (April to September) while 44% visit on a weekly basis in the winter (October to March). The mean visiting frequency was weekly for the summer months and fortnightly for the winter. No respondents aged over 65 visit the river on a daily basis, either in summer or winter. Those respondents who completed their full-time education at 19 or after visit the river less on a daily basis than those completing their education earlier.

The section of the river the most visited was section 6 (Figure 3.2) with 74% of respondents who visit the river saying that they visit this section (the map in Appendix 2 shows the sections of the river as identified for the study). The higher proportion of people visiting this section is probably due to the fact that the current footbridge at Hutton Avenue falls within this area. Sections three, four and five were also widely visited, while section one, between Skerne Bridge and Albert Road Bridge, was the least used. This is not surprising as access to the river is difficult in this section. On the whole, respondents tended to visit the sections of river nearer their homes (Table 3.2).

3.2 Purpose of visits to river

The river area is mainly used for informal recreation. Respondents displayed a variety of reasons for visiting the river and park area (Figure 3.3). The most popular reasons for visiting were walking (68%) and access to elsewhere (50%). Many said that they used the footbridge at Hutton Avenue to get into Darlington town for shopping or to visit friends. Walking the dog was cited by over a third of those visiting the river as a reason to visit. A

significantly higher proportion of dog walkers were shown to visit the river on a daily basis than non dog walkers.

Seventeen percent said that they visited the river for the wildlife. Interestingly, no respondents aged under 30 said that they visited the river for the wildlife. Much smaller numbers visited for other forms of recreation such as games or cycling. Several respondents did say that they visit the river with their grandchildren, often to spot the trains. Respondents living in Areas 2 and 3 showed proportionately higher numbers who visit the river for access to elsewhere than respondents in Areas 1 and 4. In addition those with a higher level of education showed proportionately higher numbers visiting the river for the wildlife.

3.3 Time spent when visiting the river

The mean length of time spent when visiting the river by respondents was between 16 and 30 minutes. Over one third of visits were between 16 and 30 minutes and a quarter visited for between 31 and 60 minutes (Figure 3.4). Only 8% said that they visited for five minutes or less while 1% visited for more than four hours.

4. CURRENT PERCEPTION OF THE RIVER AND SURROUNDING PARKLAND

The recreational value of a river corridor has been found to be dependent upon its perceived environmental quality (Green & Tunstall 1990). As the monitoring of the river and park area form an important part of the River Restoration Project, respondents were, asked, therefore, a series of questions on their perception of the river and surrounding area in its current condition.

4.1 Likes and dislikes about the river area

Their likes and dislikes about the river and its surrounding parkland were the first aspects that respondents were asked their views on. They were allowed to comment in their own words and interviewers recorded their comments verbatim. The main attractions of the area were the "peace and quiet", the open space, the wildlife, and the more natural habitat.

> *"I like it because it's quiet, because of the wildlife - ducks and birds ... fresh air ... companionship".*
>
> *"Just like being out in the country".*
>
> *"Open space. Variety of plants. Nature wildlife".*
>
> *"Natural habitat of greenery".*
>
> *"I like to see the river running - running clean - with fish. When I first came to Darlington there was fish in the river - believe it or not!".*

The main aspects of the river and park area that respondents said they did not like were the dog fouling, the dirty water and the smell from the river:

> *"The amount of dog dirt is scandalous, all the green areas are polluted by excrement".*
>
> *"It's not very picturesque. There is a lot of rubbish in it now".*
>
> *"Dirty mess, unpleasant smell".*
>
> *"Bit like a canal rather than a river".*
>
> *"It is a flat, dead, flowing piece of water".*
>
> *"The cleanliness is terrible - it's filthy - a lot of effluent - oils and petrol and motor cyclists -it makes it horrible and boggy".*
>
> *"Set within very deep banks, like a gully. No seats".*

4.2 Perception of various aspects of the river and surrounding area

Figures 4.1 to 4.16 show the results of questions regarding the rating of specific aspects of the river and surrounding parklands. Respondents were asked to use a scale of -5 to +5, with -5 representing very bad, zero representing no opinion, and +5 being very good. Besides giving numerical ratings, respondents were also able to comment freely on the various aspects of the river and park area concerned.

Several factors were seen to affect respondents' perception of various aspects and be significant on chi-squared tests, these being sex, age, education, income, and whether or not they visit the river. Not surprisingly, the majority of those not able to give ratings, saying that they did not know, were respondents who do not visit the river. Moreover, for most of the various aspects assessed, female respondents tended to give more 'Don't know' ratings than male respondents. In addition, when looking at mean ratings, those of respondents aged under 30 were more negative for the majority of aspects than respondents in older age groups. Respondents with a higher level of education showed significantly less giving 'Don't know' ratings and they also appeared less inclined to give more extreme ratings of -5 or +5. However, as this group is small (only 16 cases) it may not be generally representative.

Mown and unmown grass:

This aspect of the area evoked largely positive responses (Figure 4.1). Only 15% gave negative ratings for this aspect of the river area; the mean rating being 2.3. Additional comments by respondents reflected the general satisfaction with the grass areas although some were concerned that the grass became muddy when wet:

"Regularly cut - looks good apart from the dogs".

"Very neat and tidy".

"Like the grassy area".

"Boggy in winter".

"It's OK in certain spots - it's a bit boggy - is fairly well kept".

"Not good - not mown enough".

Amount and type of plants in river and on river banks:

Views on the amount and type of plants in the river and long the river banks were mixed and were almost equally divided between those who gave positive ratings, those who gave negative ratings and those who either had no opinion or said that they did not know (Figure 4.2). River channel vegetation in the study area is of moderate conservation value and no

nationally scarce or rare plant species have been recorded along the river (Biggs 1995). Some people commented that there were no plants, or at least there were very few:

"There isn't any is there?"

"Never noticed them".

It was generally indicated that people would like to see more plants and less weeds and an increased variety of plants:

"Poor variety, could be improved".

"Don't think there is enough".

"It's all gone it's been taken over by rapeseed".

"Looks like weeds. Grows too quick".

"Very overgrown".

A few respondents did have some positive comments to make ,however, regarding the plants:

"Natural habitat is very pleasing to the eye".

"A lot of oilseed rape - is quite attractive when it flowers".

"The oilseed rape is nice".

"Quite natural".

Amount and type of trees on or near the river:

The amount and type of trees on or near the river was seen more positively than the plants (Figure 4.3). The mean rating given was 1.2. Various comments were made indicating some mixed views on this aspect of the river, however most comments seemed to favour more trees:

"Too few".

"There could always be more trees".

"Could do with some more - depends on types".

Some areas were considered to be poor in the number of trees and the problem of vandalism was also a concern:

"None at all in the areas I visit".

"They are on the other side of the river to me".
"Quite a good variety when they're not vandalised".

"Often broken by vandals".

General quality of the water in the river:

There is a long history of pollution of the River Skerne with historical records going back over a hundred years. In the 1970s there was much concern about pollution in local newspapers. Views and perception of the water quality in the river were, therefore, generally negative (Figure 4.4). Seventy percent of respondents gave negative ratings for this aspect of the river. The mean rating was -1.6 while the mode was -5. Slightly more women than men gave -5 ratings and those who visit on a less frequent basis appeared slightly more negative regarding the quality of the water. Comments from respondents reflected these findings:

"Very bad - looks disgusting. Inlet near Hutton Avenue bridge very dirty".

"Pretty bad - what can you expect with all the rubbish in it".

"Depends on the amount of water in the river. Can be very dirty".

"Bad - lots of smells, some time things floating down".

"Very murky and unattractive".

Some respondents mentioned that water quality was worse after heavy rain or flooding when silt and debris was washed downstream.

Amount of flooding in the area:

Perception on the amount of flooding in the area was mixed (Figure 4.5). Many respondents commented that the flooding did not personally affect them and others said that they did not know very much about the flooding situation. Additional comments showed that some respondents felt that the flooding had decreased in recent years.

"It does flood occasionally but has improved since Northumbrian Water Board took over".

"We can't get through when it floods".

"Not so good. Quite a lot of flooding".

"Didn't know that it does flood, apart from the open area".

"The channel should be deeper to get over the flooding risks".

When asked to rate the amount of flooding, almost half of the respondents gave negative ratings, while 18% said that they had no opinion on the subject. The mean rating was -0.15. Proportionately more respondents living in Area 3 rated the amount of flooding as bad than respondents in the other areas. This is understandable as it is respondents in this area who have been flooded in the past. One respondent whose home had been flooded with between 12 to 18 inches of water stated that it was:

"... always in our mind that it might flood again".

while another felt that it was:

"devastating when it happens".

The river and surrounding area as a habitat for wildlife:

Views on the river (Figure 4.6) as a habitat for wildlife were rather more positive than for some other aspects of the river. Only 18% of respondents gave negative ratings, although 11% did not know about the wildlife. Wildlife habitat was generally felt to be quite good while at the same time it was felt that it could benefit from improvements. The mean rating given was 1.7. Some respondents, however, stated that they had never even seen any wildlife by the river.

"The fish have gone".

"There could be more".

"There is stuff there but could be better. Introduce more variety".

"No fish, some ducks".

Youths with air rifles were also said to target birds on the site, a fact which was verified by the researcher during one of the site visits. Comments by some respondents, however, suggested that they thought the wildlife habitat had been improved by the introduction of the Rockwell Nature Conservation Area. Other respondents felt that the river was a good habitat for wildlife.

"It is good. Will be better with more trees".

"It's getting better and better. More kingfishers flying about. More ducks. Trouble with magpies - killed baby ducks".

"Since the installing of the local wildlife area the habitat has improved".

The wetland and pond areas:

When specifically asked about the wetland and pond areas around a quarter of respondents said that they did not know about these areas as many of them did not visit those particular sections of the river (Figure 4.7). Similarly, 21% of those respondents who did give a rating for this aspect of the river, gave a zero, thus also indicating a lack of knowledge about these areas. The mean rating was 0.9. However, 12% of respondents did give a rating of +5 (very good) and some of the additional comments reflected this. Other comments highlighted the fact that many do not visit these areas.

"The Nature Area has made the habitat much more pleasant".

"Good, but the worry is that it could deteriorate as they have put high density housing very close".

"Saw a newt along there one day - like to see the rushes and birds".

"Some birds, getting better".

"It could be cleaned up".

"At Dropwell there is a stagnant pond in among the bushes - why can't they drain that?".

"People tip rubbish in St William's pond".

"At the bottom of the Rockwell Nature Reserve in the river is a concrete barrier that should be moved".

"Keep looking but haven't seen anything interesting".

"I've not been there for a long time".

Those respondents who completed their education after the age of 18 tended to give more positive ratings for this aspect of the river area.

Concrete river banks and retaining walls:

Mixed views were demonstrated regarding the concrete river banks and retaining walls (Figure 4.8). Fifty percent of the total number of respondents said that they either had no opinion on these or that they did not know about them. Some commented that there were no concrete banks or retaining walls, others felt them to be adequate, while others still picked up on the 'unnaturalness' of the concrete. The mean rating was 0.1, indicating fairly poor.

"Not really thought about it - a bit unnatural".

"Got to have that bit for drainage but could be blended in better".

"Prefer greenery but needed for flood prevention".

"Banks and retaining walls are adequate and do a good job".

"I like things to be natural, but they have to be there in places".

"I don't like them".

The shape of the river channel:

The shape of the river channel was something that many respondents did not feel that they could give a rating for, particularly the shape of the channel in sections 1 to 3 (Figure 4.9). One third of respondents did not know about the channel in these sections and another 22% gave zero ratings indicating no opinion. Around twice as many women than men said they did not know about this aspect of the river. Other ratings were slightly more positive than negative, with the mean being 0.8 for those who did offer proper ratings. No respondents aged under 30 gave very positive ratings for this aspect of the river, perhaps indicating that they are more critical than older respondents. Few additional comments were made about the shape of the river channel and those that were indicated that people felt that some improvements could be made.

"It's a canal now - it's more than two feet deep".

"It needs improvement. Causes a bottleneck for flood water".

"Could be deeper and wider - very steep and overgrown".

"Does meander a bit - doesn't need to be any wider".

"It used to be better".

One respondent who stated that "The channel has been brought about to be quite uniform" gave a rating of +5, thereby indicating that they liked the uniformity.

For sections 4 to 6 (Figure 4.10) of the river the ratings were more positive, the mean being 1.1. Large numbers of respondents were still not able to give a rating on the shape of the channel, and in fact few gave any additional comments. Those that were given were mixed and few mentioned the actual shape of the river:

"Quite attractive".

"Too clogged up - can't see the bottom".

"Broader and deeper preferred".

"The channel does deteriorate slightly at Five Arches Bridge - becomes shallower".

Access to the river:

Access to the river was generally seen as good (Figure 4.11). Of those who gave a rating for this aspect, 42% gave +5, while only 9% gave negative ratings. The mean rating was 3.2 and the median was 4. The majority of comments by respondents reflected these figures, although a few respondents felt that improvements could be made:

"The parts we visit are good".

"Easily available".

"Nothing to stop you getting to the river from here".

"For us good - don't have to walk far".

"Could be a lot better. Poor for disabled - should be a lot better".

"Can't get down in summer due to rushes. Difficult for other people. Easy for us - gate in garden fence".

Maintenance of the riverbed and banks:

Ratings on the maintenance of the riverbed and banks were generally more positive than negative (Figure 4.12). Thirteen percent of respondents did not know about the maintenance, but of those who did give a rating, over 60% were positive. The mean rating was 0.8, while both the median and mode were 2. Comments, however, were divided about this aspect of river management:

"Do it occasionally".

"Excellent".

"The trees are kept tidy and the grass".

"Quite satisfactory except that I don't like the way you can't see the river till you stand over it".

"Could be improved".

"Not much evidence of any".

Cleanliness of the open space and river banks:

This aspect of the river and park area was one of the most negative when rated by respondents (Figure 4.13). Around a third of respondents gave ratings of -5 and -4, indicating that they thought it to be very bad. The mean rating was -1.2, while the mode

was -5. Although many respondents commented on the litter around the river, the majority of comments focused on the dog fouling in the area:

"Dogs very bad. Litter not too bad".

"Should be a dog free area".

"Lots of litter - not enough bins. Kids with cans and litter dumped in the river".

"Half the bins have disappeared and not been replaced".

"Dog dirt is scandalous. Dog owners from surrounding streets come here - residents do not prevent their dogs fouling".

"I don't see the point of cleaning up anything and making it more attractive if you can't put a foot down because of the dog dirt".

"They come right past my windows to foul on the grass. I would shoot the dogs and the owners as well!".

For a discussion of the footpath and footbridge ratings and issues see Section 8 below.

Recreational areas and opportunities:

Opinion was divided over this aspect of the river area (Figure 4.14), a fact illustrated by the additional comments made by respondents:

"Plenty of open space".

"There are plenty".

"Bad. Not enough open area. River area too dangerous for children".

"Area doesn't seem to be used as extensively as it could be for recreational purposes".

"No recreation round here - would only be abused".

"Are there any?"

"The adventure play area dismantled after residents' complaints. Older children visiting it, wrong types, but good open playing field".

Ratings on the recreational area and opportunities were slightly more positive than negative, although the mean figure was 0.1.

Safety aspects of the river area:

Safety of the river area was an issue of concern for some respondents, particulary for those with young children (Figure 4.15). Sixty-one percent of respondents gave negative ratings on this aspect of the river and almost one third felt safety to be bad (-4 and -5). For those respondents who gave a rating, the mean was -1.43 and the mode was -5, although 10% said that they did not know about safety. Respondents with children aged 10 or under in their households rated the safety aspects of the river more negatively than those without younger children. Additional comments by respondents on the safety aspects were mixed, although the majority tended to be more negative:

"Not good for young children".

"Bad. Nothing to stop children falling in".

"Safe for adults but young ones should be supervised at all times".

"Nil. There's no lifebelts or anything".

"Steep at sides. Can't avoid danger. Depends on the individual - could be made safer".

"Not safe for children - woman was attacked".

"Should be fenced off for the children".

Some respondents, however, did not seem to feel that safety was an issue, or at least not the main issue:

"Nothing much unsafe about it unless the river is in flood".

"Quite good. Always safety problems with water/rivers".

"Most of the river is safe except when people are careless".

Effect of the river on house prices in the area:

The final aspect respondents were asked to rate was the effect of the river on house prices in the area (Figure 4.16). This appeared to be an issue that most had not considered before and almost a third of respondents said that they did not know what effect the river had on house prices. Moreover, for those who did give a rating, one third gave zero, either indicating that they had no opinion on the matter or that they did not think the river affected house prices at all. For those who managed to give a proper rating, the majority of these were positive although only 10% felt that the effect was very good (either +4 or +5). Comments from respondents reflected these rather mixed views:

"Does not really affect them".

"Never thought about it. Don't really think it is an asset unless you actually live right on it".

"Does not affect housing".

"Does not make any difference".

"Didn't affect us buying this property".

"It does have an effect [a negative one] on houses".

"Pretty good. Supposed to be out in the country".

"Good influence".

"Good effect if you are above the water level".

A few respondents did comment, however, that they felt the flooding affected the house prices in the area:

Probably hasn't done it any good. Since flooded - stigma attached to these properties".

Attractiveness of the river:

Respondents were asked how attractive they thought the different sections of the river were between Skerne Bridge and Haughton Bridge. They were asked to rate each section on a scale of -5 for very unattractive to +5 for very attractive. Figure 4.17 shows the mean rating for each section. Quite large proportions of respondents said that they did not know about the attractiveness for some sections of the river. For example over 50% did not know about section 1, but this is perhaps not surprising as access to this section of the river is very difficult. The majority of those who gave 'don't know' ratings do not visit the river. Moreover, those who only visit once or twice a year gave slightly less positive ratings for the overall attractiveness of the river. Proportions not knowing about the attractiveness decreased with each upstream section of the river and was only 7% for the river overall. Sections 5 and 6 were seen as being the most attractive. The mean rating for the river overall (Figure 4.18) was 1.7, indicating that people generally thought the river to be quite attractive.

5. PERCEPTIONS OF THE PROPOSED RIVER RESTORATION SCHEME

Respondents were shown a drawing of the proposed restoration scheme (Appendix 3) and the interviewers read the following paragraph from the questionnaire outlining the proposal:

> *This is the proposed scheme. It would involve creating bends in the rivercourse in Sections 5 and 6 (see map) which may involve the loss of some of the open space available for recreational activities such as football etc. Some of the concrete retaining walls will be given a softer appearance with extra planting including trailing plants. The new bends in the river channel in Section 5 would make the river less uniform, with variations in width and depth and river bed materials. The scheme would create wetland areas and pond areas joined to the river to attract new wildlife and would involve new landscaping with trees, plants and flowers. It is planned that the scheme will lead to an improvement in the quality of the water in the river. Moreover, Darlington Borough Council are considering the possibility of an additional new footbridge and footpaths, which I will come on to later. Although the scheme would provide the same* ***or an improved*** *level of flood protection to nearby properties as at present, some of the open land by the river (the original floodplains) would be liable to natural flooding as it is at present.*

Respondents were then asked to comment on what they liked or disliked about the proposed scheme. Many commented that they thought the scheme would improve the attractiveness of the river and would make it more enjoyable to visit. Additional planting was also favoured by some respondents:

> *"The shape of the river is not as boring. More greenery. [Like] new footpaths."*

> *"Like the idea of it - like countrified aspect of it. Wetlands attract more birds. Like the idea of a new footbridge".*

> *"I think the scheme would make it more pleasant - these would be real good. I'm all for it!".*

> *"That's what I would want - improved beauty. Attractiveness - not bothered about recreation (football). Good if it adds seating".*

> *"More variety of plants. Good walking - both sides of the river".*

> *"It makes the whole thing more natural".*

It was hoped that the quality of the water would be improved by the scheme which would also help attract more wildlife to the area. The proposed scheme was generally thought to be good for nature conservation. Comments were made on the proposed meanders in the river and on the wetland areas and improvements for wildlife:

"Taking the new meandering course would be beneficial ie improving the beauty of the spot".

"Makes it look prettier. River would look nicer with curves. Would improve amount of land on Rockwell side of river".

"The bends in the river might reduce flooding".

"It would improve the quality of the water and enhance the wildlife".

"Will be able to walk along - and more wildlife. Would be nice for the kids to see".

"A lot more plant life and trees. I like the idea of the ponds and wet areas. It sounds a very good scheme".

Fewer respondents gave negative comments on the proposed scheme. Several respondents commented that they disliked the whole idea of a scheme, however, the majority of respondents either said that there was nothing they disliked or gave very specific aspects about the proposed scheme which they did not like. The safety factor was one issue raised by some respondents (also see Section 9 below). Some respondents (particularly those in the Devonshire Road area on the south bank of the river) were concerned about the proposed additional planting as they felt that this would conceal potential burglars and other undesirables:

"Trees around houses in between areas 5 and 6 would conceal burglars/rapists".

"Could do with more trees on this side of river [north]. Not much liked - but in favour of restoration generally. Pond bit will silt up. Would have preferred to see it straight. Won't be clean. Don't like the bends in river. Too many bushes for children and vandals to hide in. Don't approve of this scheme."

"Bends in river would lead to silt and bulrushes. Would cause a lot of flooding. It would be against nature".

"Important to keep it informal and 'natural'. It might encourage more people to come to the area - would not like that at all. It's nice and quiet now, only dog walkers".

Others commented upon the locations of the proposed new footbridge or footpaths:

"[Dislike] the proposed new bridges - where they are thinking of putting these only cause trouble".

"I don't like the idea of formal paths - I like natural paths".

Concern was also expressed by a few respondents on the apparent lack of provision of seating, the likelihood of rubbish being thrown into the river, and the perceived possible increase in flood risk.

6. ENJOYMENT VALUE OF VISITING THE RIVER

6.1 Enjoyment value of visits to the current river

In order to estimate the recreational value of the river Skerne in its current condition, along with the proposed Skerne scheme, a procedure was followed that has been developed to assess the recreational benefits of protecting coasts from erosion. The procedure has been used in other FHRC studies to assess recreational benefits (Penning-Rowsell et al, 1992); House et al 1994). It should however be noted that the size of the sample used in this study is too small to meet current FHRC and NOAA guidelines (NOAA 1993) for the conduct of Contingent Valuation Method (CVM) surveys. Therefore, the value of visiting data presented here must be treated as exploratory or pilot data which would require confirmation by a larger scale CVM study.

Respondents were asked how much value they as individuals put upon their enjoyment of a visit to the river in its current condition. As this is a difficult question, respondents were asked to think of a visit or activity they had done in the past which gave them the same amount of enjoyment as they would get from an average visit to the river. A list of possibilities were presented to the respondents, for example: buying a newspaper or chocolate bar, visiting a nature reserve or country park, visiting a restaurant, pub or swimming pool. They were then asked to use the cost of these visits as a guide to the value of their enjoyment of a visit to the river. Activities given and noted by the interviewers included: visiting the cinema or theatre, going to a football match, bingo, a visit to the River Tees, visiting a cafe. However, the most popular visit given as giving the same level of enjoyment as a visit to the river was that to a country park or nature reserve.

Fifty four percent of respondents who visit the river and were asked this question gave a value for their enjoyment of a visit to the river. These values ranged from as little as 20 pence to £50 if the outlier values are included, and from 20 pence to £20 if the outliers are excluded. In this case, the outliers were included in subsequent calculations as, due to the distribution of the data, they were not really considered to be extreme values. The most frequent individual amounts given were £10 (20 respondents) and £5 (18 respondents) while others ranged within the two extremes.

Table 6.1 shows the mean value of enjoyment for the total number of respondents able to give a value (54%). It also shows a breakdown by area of residence. The mean value of a visit to the river in its current condition was £6.00, although this varied from area to area, with respondents in Area 4 giving the highest values. Distance from the river appeared to affect enjoyment values, with those living nearest to the river giving the lowest values and those living farthest from the river the highest (Table 6.2).

The age of respondents appeared to be a factor in affecting the value given. When looking at mean values, these increased with the age of the respondents, for example: £2.65 for those aged under 30, £5.99 for those aged between 30 and 65, and £12.43 for those aged over 65. The older and younger age groups did contain a significantly smaller number of valid cases, however, so results may not be generally representative.

6.2 Respondents who could not place a monetary value on their visit

Table 6.3 shows a comparison of respondents' characteristics between those who were able to offer a monetary value for a visit to the river in its current condition and those who said that they did not know what value to give. Some interesting differences are visible, for example, between respondents living in the different study areas and according to respondents income. The purpose of visiting the river is also shown to be significantly different when comparing those who would and would not give a value.

A comparison between those respondents able to give a monetary value and those who said that visits to the river could not be valued in monetary terms is shown in Table 6.4. It also shows some statistically significant results. For example, more men refused to place a monetary value than women.

6.3 Enjoyment value of visits after scheme completed

After being shown the diagram for the proposed scheme and having the scheme explained to them, respondents were then asked whether they would visit the river more often or less often after the scheme was completed. Nearly two thirds (64%) said that they would visit more often and 34% said that it would make no difference to their visiting patterns. Only 1% said that they would visit the river less and 1% said that they did not know.

Respondents were also asked whether they would get more or less enjoyment from visiting the river once the proposed scheme is carried out. A rating scale of -3 to +3 was used, with -3 representing much less enjoyment, zero representing the same level of enjoyment, and +3 representing much more enjoyment. Less than 1% of respondents said that they would get less enjoyment from visiting the river, while 9% felt that the level of enjoyment would remain the same. Overwhelmingly, 90% of respondents gave a positive rating with 52% of these giving a rating of +3, much more enjoyment. The mean rating was +2, while the median and mode ratings were +3. Table 6.5 shows the enjoyment value according to area of residence.

Having considered their change in enjoyment with the scheme in place, respondents were asked to place a value on their individual enjoyment of a visit to the river in the drawing (Appendix 3). Table 6.1 also shows the mean value of enjoyment after the restoration to be £7.65, an increase of £1.65 from before restoration. However, less respondents were able to give a value, 51% compared with the 54% before the scheme. The average gain per visit after restoration was £1.90, although this again varied from area to area of the study (Table 6.6).

Again, more men than women refused to place a value. Values that were given ranged from 40 pence to £50 with the outliers included and 40 pence to £25 with them excluded. As for the values placed on visiting the river in its current condition, the age of respondents was seen to affect the values placed by them, increasing with age. For those aged under 30 the mean value was £3.46, for those aged between 30 and 65 it was £7.77, and for those aged over 65 it was £14.13.

Respondents were then asked whether they were in favour or against the proposed restoration scheme. A rating scale of -3 to +3 was used, with -3 representing strongly against the scheme, zero representing no opinion, and +3 representing strongly in favour of the scheme (Figure 6.1). Only 5% of respondents gave negative ratings, with 2% being strongly against the scheme, and 3% not having an opinion. The majority of 92% were in favour of the scheme; of these 71% were strongly in favour. The mean rating was +2, while the median and mode ratings were +3. None of the respondents who completed their education at 19 or after were against the scheme.

6.4 Perception of non-visitors to the proposed scheme

Respondents who do not visit the river and have not visited in the past year (15%) were shown the diagram of the scheme and the proposal was explained to them. They were asked whether they would visit the river if the proposed changes were carried out. Over half of the 29 non-visitors who answered this question (a few did not answer) said that they would visit, while 3% said that they did not know. This could mean that a restoration scheme would potentially attract people to the river who do not currently visit, however, as the number of cases of non-visitors was small, these results cannot be taken as generalisable.

As with the respondents who do visit, the non visitors were asked to place a monetary value on their enjoyment of a visit to the river in the proposal. Over half of these respondents said that they did not know how much value to place on a visit, while 19% felt that they could not value these things in monetary terms. For those seven respondents who did place a value, these ranged from 50 pence to £10.

The non-visitors were also asked whether they were in favour or against the proposed scheme. Using the same rating as the visitors (-3 to +3), of the 30 respondents who answered this question, 80% gave positive ratings saying that they were in favour of the proposal. Eighty percent were in favour of the scheme and 60% of these were strongly in favour. Thirteen percent said that they had no opinion and 7% were strongly against the scheme. This compares with 92% of visitors who said that they were in favour of the scheme. The difference between visitors and non-visitors could be due to differences in the numbers of cases in each group.

7. WILLINGNESS TO PAY

7.1 Willingness to pay for national and Skerne programmes

In order to find out if people are prepared to pay, on behalf of their household, a small increase in national and local taxes each year to return rivers to a more natural condition, respondents were asked if they were prepared to pay for a) a national programme which would include the River Skerne, and b) the scheme for the River Skerne only, funded locally. It should however again be noted that the size of the sample used in this study is too small to meet current FHRC and the National Oceanic and Atmospheric Administration's (NOAA 1993) guidelines for the conduct of CVM surveys. Furthermore, FHRC has serious reservations on eliciting willingness to pay and non-use values for specific site changes which have been presented elsewhere (Green et al 1994). In addition, limitations on space in the questionnaire were such that it was not possible to include all the procedures that we consider appropriate and desirable in order to elicit valid valuations (Bateman et al 1992). Therefore, the willingness to pay data presented here must be treated as exploratory or pilot data which would require confirmation by a larger scale CVM study.

For the national programme 39% of respondents said that they would be willing to pay additional taxes and 18% felt that they would perhaps be willing. Thirty-four percent were not willing to pay extra taxes for a national programme and 10% said that they did not know (Table 7.1). These figures change if the 'Don't know's' are removed; in this case 43% would be willing to pay for a national programme. Female respondents tended to be more uncertain as higher proportions said that they did not know whether they would be willing to pay additional taxes.

When asked about their willingness to pay for the Skerne scheme, 45% said that they would be willing to pay, an increase of 9% from those willing to pay for a national programme. In addition, 17% said that they might be willing to pay, thus indicating that 62% of respondents reacted positively to this question. Just under a third of respondents said that they would not be willing to pay for the Skerne programme and 8% did not know whether they would be willing to pay or not. Table 7.1 again shows the changes to these percentages if the 'Don't know' responses are removed from the calculations. These show that almost half the respondents would be willing to pay for a Skerne programme.

The response regarding the willingness to pay for both a national and a local programme was virtually the same. A cross tabulation of the two variables showed a significant correlation between those willing to pay for a national and those willing to pay for a local programme; the variables were highly associated.

A third of respondents were willing to pay for both programmes, while 27% were not willing to pay for either. Of those willing to pay for a national programme, almost three quarters were also willing to pay for a local programme, while of those not willing to pay for a national programme, 88% said that they would not be prepared to pay for a local programme either. Only 5% of those willing to pay for a local Skerne programme were not prepared to pay for a national programme, and 3% of those willing to pay for a national programme were not willing to pay for a local programme.

Length of residence in the area was seen to slightly affect respondents willingness to pay; for both the national and local programmes, those who had lived in the area for up to four years showed proportionately smaller percentages willing to pay than those living in the area for 51 years or over.

After respondents had been asked whether they were in principle prepared to pay for a national and local scheme, those who were prepared to pay for a Skerne scheme, were asked:

> *'If a national programme could not be agreed upon, how much would you be willing to pay for the Skerne scheme?'*

The amount that respondents were willing to pay per annum was determined using a ladder designed to give respondents the time and opportunity to consider the amount they were willing to pay. Two starting points, 50p and £64, were alternated to provide a check on whether the starting point influences the final willingness to pay values offered. The full FHRC ladder procedure which requires that two 'starting points', a high and a low one on the ladder are used with each respondent was not employed in this study because it was considered that it would take up too much time. It appears likely that a relativity effect operates - people judge the sums they are presented with on the ladder in relative and not absolute terms. It therefore is likely that this effect can be attenuated by repeating and reversing the ladder procedure (Green et al 1993). In this study, this was not done but beginning from one of the two starting points, respondents were asked whether they would definitely be prepared to pay successive amounts. Depending on whether the respondent answered yes or no the interviewer then proceeded to ask about the next (higher or lower) amount on the ladder until the respondent reached the maximum amount they were willing to pay. The ladder and the questioning procedure are shown in the questionnaire (Appendix 1).

Of the 152 valid cases, when asked whether they would be prepared to pay particular amounts per annum in additional taxes, 100% were prepared to pay up to an extra 20 pence a year on taxes. From here the proportion of respondents prepared to pay decreased in relation with the increase in taxes proposed, for example: 98% were willing to pay an extra 50 pence, 90% an extra £2, 42% an extra £16, 11% an extra £64, and only 1% were willing to pay £256. Outlying values were included.

When asked themselves to choose a figure that they would be willing to pay in extra taxes, these ranged from 25 pence to £180. The median and mode figures given were both £10, while the mean figure was £22.45, from 149 valid cases. The standard deviation was £30.67. However, the distribution of data was not normal, and the standard deviation was not considered an appropriate measure of the spread of the data. The data was therefore transformed to normality by logging the mean values and removing the 'Don't know' values (Table 7.2). The log mean and standard deviation were considered more appropriate measures of the spread of data. After logging, the values respondents were willing to pay ranged from -60 pence to £2.26. The mean value was £1.02 and the standard deviation 0.60.

A starting point effect was found in that there were significant differences in the mean value of the final sum offered with the different starting points. For the £64 starting point, the mean willingness to pay was £39.85; with the 50p starting point, the mean willingness to pay

was £18.64. Although interviewers were intended to alternate the starting points, the 50p starting point was used with rather more respondents (88 compared to 61). Furthermore, although the alternating of the starting points should have had the effect of randomising their application, it is possible that the differences in mean valuations offered with the two starting points reflect other differences in the respondents. A full evaluation of the significance of the starting point for the values offered requires investigation through regression analysis.

7.2 Factors influencing the decision on willingness to pay

Respondents were asked to rate various factors influencing their decision on whether to pay for the programmes (whether a national programme including the Skerne or a programme for the Skerne only). A scale of 0 (least important) to 5 (most important) was used. 'T' tests, to reveal if there were any significant differences between mean values, were calculated for those willing to pay for both programmes and for the factors influencing respondents' decisions on whether to pay. The results for those willing to pay for a national and a local programme were very similar (Table 7.3).

Those who were prepared to pay attached a higher importance to reasons such as 'the enjoyment I get from visiting the river', in fact this was the most important factor in deciding respondents willingness to pay. The non-use value of the environmental benefit of the change was rated the next most important factor. Factors such as what the respondents' household could afford, what they thought was their fair share of the cost of the programme, and what they felt it was fair for their household to pay also rated as quite important. This suggests both use and non-use motivations for willingness to pay for restoration. The two components can be interpreted as a broad measure of 'value' (ie the value to me of improvement to the river as a place to visit) and 'affordability' (ie whether the individual can and should pay). These results reflected those found in previous studies (eg Garner et al 1994) and are consistent with our current best understanding of how an individual decides whether and how much to pay for a good (Green & Tunstall 1993; Green 1993).

If those respondents who said that they **might** be willing to pay for a national and local programme were also included along with those who **were** willing to pay, the results changed very little. Those variables which showed a significant correlation were also the same, which indicates that the motivations affecting willingness to pay appear to be the same.

Results showed respondents age to be significant when looking at the economic motivations affecting their decision to pay for the programme ie what the household could afford to pay, the amount they already pay in taxes, and what they thought it was fair for the household to pay, and what they saw as their fair share of the cost. Older respondents gave more ratings of 5 (most important) for these economic factors.

For the local Skerne programme, the difference in the means of the ratings for what they already pay in local and national taxes was highly significant. This was the only significantly differentiating factor between willingness to pay for a national and local programme. It appears to indicate a more realistic view when considering paying for a local programme than for a national scheme.

Willingness to pay for both programmes was affected by whether respondents visit or don't visit the river (Table 7.4), with much higher percentages of visitors willing to pay than non-visitors. A chi-squared test showed that there was a significant correlation between those willing to pay for the Skerne programme and those visiting the river. This indicates that visitors are more likely to pay for a restoration programme than non-visitors. However, visitors to the river do not appear willing to pay a higher amount than non-visitors. The overall mean sum respondents were willing to pay for a local Skerne programme, as mentioned above, was £22.45. For those who visit the river the mean was £22.37 while for those who do not visit it was £23.10.

A higher proportion of respondents aged under 30 were willing to pay for the Skerne programme than respondents in other age groups. As for a national programme, more women said that they did not know whether they were willing to pay than men. Conversely, those respondents with a higher level of education showed higher percentages willing to pay for both programmes and none giving a 'Don't know' response. Income was also a significant factor in willingness to pay; those with higher incomes demonstrated proportionately higher percentages willing to pay for the Skerne programme than respondents with a lower income.

8. VIEWS ON THE FOOTBRIDGE AND FOOTPATHS

Darlington Borough Council have for some years been discussing the construction of a new footbridge across the Skerne. The River Restoration Project also aims to provide new footpaths around the river. Respondents were therefore asked about their use of the existing footbridge and footpaths and for their views and preferences for the proposed new bridge and paths.

8.1 Use and perception of current footbridge and footpaths

The existing footbridge at Hutton Avenue is well used by local residents. Sixty-eight percent of respondents said that they currently use the bridge. Of these, 19% use the bridge daily, some more than once, and 31% use it on a weekly basis, some several times a week. One third of respondents reported only using the bridge occasionally. The highest proportion of bridge users live in Area 3, while the lowest proportion live in Area 1 (Figure 8.1).

When asked to rate the appearance of the existing footbridge (on a scale of -5, very bad, to +5, very good), the majority of respondents either said that they had no opinion or that they did not know about the bridge. Less than one third of those who were able to give a rating gave a positive one, the mean being -1.1 (Figure 8.2). Views on the condition of the bridge were mixed with some feeling that it was reasonably well kept while others felt that it needed attention and was "tatty" in appearance:

"It does its job".

"Could be a little bit better".

"It's rubbish - it could be improved".

"Kept reasonably well".

Concern was expressed more on the presence of youths who congregate around the bridge, particularly on summer evenings:

"Could do a lot with that - often vandalised".

"Kids collect there. Throw cans and litter around".

"Maintained well - seems to be a place for drug addicts now".

For the current footpaths, 80% of respondents said that they used them, although the frequency of use varied considerably from several times a day to occasionally. Respondents living in Area 4 showed lower proportions using the footpaths than residents in the other three areas (Figure 8.3).

Views on the nature of the footpaths varied from "good", "alright", "not bad" to "could be improved". It was acknowledged that along some sections of the river there is no formal footpath at present and visitors need to walk along the grass. These areas were said to become slippery, muddy and boggy after rain, flooding or excessive usage by visitors. When asked to rate the maintenance of the footpaths (using the same rating scale of -5 to +5), ratings tended to be generally more negative than positive. The mean rating was -0.3 (Figure 8.4), while the median was zero. Some respondents commented that they did not feel that the maintenance of the paths were adequate:

"They don't do anything do they?"

"Never seen any since they were laid".

"Don't know how much is done".

"Nothing is ever done".

"Don't seem too bad".

"Good on the one I use".

In the sections where a formal footpath exists, these were generally seen to be good when looking at additional comments made by respondents, although some respondents complained that the gravel gets washed away during a flood. Ratings on the nature or surface of the footpaths were fairly mixed, with the mean rating being -1.2 (Figure 8.5). More women gave negative ratings for the nature and surface of the current footpaths than men and more gave zero ratings. Consequently, several female respondents commented on the difficulty of taking a pushchair along the paths, and the same comments also apply to wheelchairs. It was said that the gravel "bunches up in front of the buggy" making it difficult to negotiate the paths.

8.2 Views and perception of proposed additional footbridge and footpaths

Respondents were asked to comment on the proposed additional footbridge and footpaths.

Additional footbridge:

The proposal for a new footbridge was generally positively received, although a few respondents were divided over the issue.

Respondents were shown four possible locations for an additional footbridge (see Appendix 3) and asked to say whether they were in favour of each. In addition, they were asked whether they would prefer a new bridge in a location other than the ones suggested, and if so where this would be. They were also given the opportunity to say if they were against a new footbridge at any location, whether they would prefer to have the existing footbridge

at Hutton Avenue refurbished instead of an additional bridge, or whether they would like both the existing bridge refurbished as well as having a new bridge.

Figure 8.6 shows the preferences for the four possible locations for an additional footbridge. The location most favoured, by 58% of respondents, was location B, opposite the Rockwell Nature Area. This was followed closely by location D (56% in favour), and location C (51% in favour). Location A was seen as being the least favourably (41% in favour), however, 61% of respondents said that they were in favour of a new bridge at any of the proposed locations.

Several factors appear to have influenced respondents' decisions on the additional footbridge. One possible factor was the location of the proposed footbridge in relation to respondents' homes. For example, respondents living in Area 2 showed the lowest percentages in favour of a new bridge at location A, nearest to their homes (Figure 8.7). These respondents also showed the lowest percentages in favour of a bridge at locations B and D, however, they showed the highest percentage in favour of a bridge at location C. Respondents living in Area 1 tended to favour location B above other locations, while those living in Area 3 favoured location D and those in Area 4 favoured location B.

Interestingly, a higher proportion of those respondents who do not visit the river were in favour of a bridge at location A than those who do visit. This could possibly be because the respondents are not familiar with the areas concerned and how a new bridge is likely to affect the area. However, the majority of those who don't visit the river were in favour of a new bridge at any location.

Respondents' age also appeared to be a factor affecting some respondents' decisions. A higher proportion aged under 30 favoured location B than other age groups, lower proportions of those aged over 65 favoured location C, while higher proportions aged between 30 and 64 favoured location D.

Of the 13% of respondents who said that they would prefer a new bridge in a different location to those suggested, most of these chose a location in section 5 opposite the opening for the footpath to St William's Pond.

Only 12% of respondents were against a new bridge at any location (Figure 8.8). The reasons given for this were varied but on the most part focused on the perceived reduction in security for nearby houses. Area 2 respondents showed the highest proportions against a new footbridge at any location (Figure 8.9). This is probably due to the fear expressed by a number of respondents of 'undesirables' being attracted to the area. Moreover, higher proportions of those who visit the river on a daily basis said that they were against a new bridge at any location. Interestingly, Area 1 respondents showed significantly lower proportions in favour of refurbishing the existing footbridge than respondents in the other three areas, particularly Areas 3 and 4. Area 4 respondents showed the lowest proportions who were in favour of a new bridge as well as refurbishing the existing bridge (Figure 8.10).

Some respondents felt very strongly about the issue of an additional footbridge:

"Against a new bridge because the footbridges where suggested give access into the estate. We have had burglaries in this area and this is just another access route to get a clean break away. ... Waste of time and money".

"Afraid it would attract more people to the area which would have a negative, knock-on effect - anxieties".

Findings from Tunstall et al (1994) showed that local residents generally do not wish for features that will encourage a large influx of outside visitors to 'their' river environment. This was demonstrated by some respondents during the River Skerne survey. It was also suggested that an additional bridge might contribute to attracting more visitors to the area, and one respondent in particular was against this as she did not like the idea of more people walking in the vicinity of her house. However, these respondents were in the minority and the overwhelming response to the question of a new footbridge was strongly in favour. It was thought that an additional bridge would allow access to a part of the river little used at present:

"... able to cross the river and have more to explore".

"Would give more scope for making use of the river".

"Gives more access to opposite sides of river - which is good".

"Handy to get to the Rockwell Nature area".

"More chance to see more of the river".

A number of respondents said that it would enable them to take a circular walk which would make visiting the river more interesting and enjoyable:

"Good for walking dogs - makes different walks with different parts to cross river".

"It provides access at both ends for a full circuit of the river".

"Prefer to be able to walk to both sides of the river on a circular walk".

It was also suggested that an additional bridge would improve access to the river for disabled people and those with walking difficulties. In fact, the provision of seating along the river was suggested by a number of respondents - the elderly respondents particularly being in favour of this so that they could stop and rest and, therefore, possibly spend longer visiting the river. It was also thought that an additional bridge would "serve local houses" as it would be easier for people to cross the river with more than one bridge.

Some residents felt the existing bridge to be in need of some repair. Over a quarter of respondents felt that they would like to have the existing bridge refurbished rather than have an additional bridge. Those respondents living in the area for considerable lengths of time (51 years or over) showed higher proportions who said that they would like the existing

bridge to be refurbished. Moreover, 84% of the total respondents said that they would like both the existing bridge refurbished **as well as having an additional bridge**.

Additional footpaths:

With regards to the proposed new footpaths, response was again overwhelmingly in favour of these. New footpaths in the proposed locations were favoured by 84% of respondents, while 8% were in favour of new paths in different locations. These locations varied taking in both sides of the river. Some preferred new paths along the river itself, while others suggested paths away from the river.

Respondents in Area 2 showed the highest proportion in favour of new footpaths in the proposed new locations, although the majority of respondents in all areas were in favour of these. Many comments were given by respondents as to why they favoured the additional footpaths:

"We definitely need new footpaths - at the moment it is very poor".

"Will be able to walk along them even when it's wet".

"Won't have to wear wellies".

"You would be able to have a good look around. Your feet would not get so dirty. It would be quite nice to walk right round the river".

"Better than walking on the grass".

"River would look better without walking through the mud".

"Properly made paths would make it easier to walk with pram".

"Need the footpaths to continue the walk".

Only 4% were not in favour of the new footpaths at all and 5% said that they did not know if they were in favour or not. Those not in favour gave various reasons ranging from the increase in visitor numbers, which they saw as being negative, to the fact that they felt the river would be spoilt if more formal pathways were to be introduced:

"It means more people eg cyclists - they frightened the dogs and I'm worried that the dogs in turn may turn on them. I feel selfish about this".

"Not in favour of footpaths along by the river as it should remain natural. I think paths spoil the area by the river and it should be left as grass".

"Would spoil river and attract more people. Would need to be well maintained".

"As it is open parkland I don't see the need for a lot of new footpaths to walk about on".

Another reason cited by a few respondents was the fear of motorcyclists using the new paths as racetracks. The area is currently used by some for this purpose and it was felt that proper paved paths would invite more cyclists. This was seen as being dangerous for those using the footpaths, both people and animals.

"They should stop the motorbikes going up and down the hill near Devonshire Road".

The majority of those in favour of new footpaths said that they would prefer the surface of these to be paved or tarmac. Eighteen percent of respondents said that they would prefer gravel paths, while a few commented that this would be washed away when the river was in flood. A small percentage of respondents (5%) said that they did not have a preference for the surface of the paths, while 10% preferred a mixture of surfaces. Nine percent of respondents gave a preference for grass footpaths.

9. PUBLIC EXPECTATIONS AFTER CHANGING THE RIVER

The later follow-up survey will ascertain respondents' post-scheme perceptions of the river and surrounding area. However, for this survey respondents were asked about their expectations of various aspects of the river and park area after restoration has been completed.

9.1 Safety aspects

Findings from an earlier FHRC study on a river restoration scheme showed that safety issues were important to local residents (Tapsell et al 1992). When asked whether they felt that changes to the river would affect the safety of the area for children and other users the majority of Darlington respondents either felt that it would make no difference (48%) or that the river would in fact be more safe to visit (39%) (Figure 9.1). Only 6% of respondents felt that the scheme would make visiting the river less safe.

It is interesting how different respondents interpreted the question of safety. As indicated above, evidence from comments made by some respondents indicated that they felt the river and parkland would be less safe, as far as crime is concerned, if the proposed scheme is carried out. Others felt that a more open and accessible river would be dangerous for children, being easier for them to fall into the water (one child is known to have drowned in the river some years ago). Some respondents, however, obviously thought of the scheme as making the river more safe ie that there would be less chance of falling into the river if the banks were less steep, or that the scheme would lead to less flooding of the area and would therefore be safer in this respect. Other respondents appeared to interpret the issue of safety in terms of personal safety from attacks when visiting the area. It is, therefore, clear that respondents interpreted this question in different ways and not all respondents added additional comments to illustrate their views. A few of the comments that were given included:

> *"If there are more secluded [areas] will get or attract men or untoward characters to the area because of children going down on their own".*
>
> *"They should put an eight feet high fence at the back of us [Devonshire Road] to protect us from kids who damage our properties. It might stop some of the break-ins that occur".*
>
> *"Lighting would be a good idea".*

9.2 Opportunities for wildlife

It was felt by the vast majority of respondents (80%) that the proposed restoration scheme would result in an increase of wildlife and wildlife habitats in the area. Only 4% felt that

there would be a loss of wildlife, while 12% did not feel that the scheme would make any difference (Figure 9.2). Some respondents felt that the creation of backwaters would attract more wildlife. As wildlife was cited by many respondents as one of the reasons for visiting the river, this aspect of the scheme was seen as being a very favourable opportunity to improve wildlife habitats.

9.3 Opportunities for recreation

When asked if they felt that the proposed scheme would result in increased or reduced opportunities for recreation in the river area, it was generally felt that opportunities would be increased (Figure 9.3). Sixty-four percent of respondents thought this compared with only 8% who felt that recreation opportunities would be reduced. Almost a quarter of respondents did not think that the scheme would make any difference and that recreational opportunities would remain the same.

Proportionately higher numbers of those aged over 65 said that they did not know whether the scheme would offer more or less opportunities for recreation, while higher percentages of those aged under 30 thought that there would be increased recreation opportunities.

9.4 Gains and losses from changing the river

When asked what gains or losses they felt could therefore result from changing the river comments were generally positive. It was commented that the scheme would improve the whole area generally. Gains included more wildlife, better views, a more natural and interesting environment, and more vegetation. It was also thought that the scheme would lead to improved water quality and less pollution and that it would generally clean-up the area. Nature conservation would increase and the river would provide an educational resource for local children and adults alike. One respondent thought that it would be an ideal opportunity to use some of the money from the National Lottery to fund a national programme which would include the River Skerne!

Increased access to the river was also seen as being positive, particularly with the provision of a new footbridge and footpaths. In addition, some residents felt that it would lead to improved risk of flooding.

> *"Would be good for the children to see the wildlife and have nature walks from the school".*
>
> *"Would be more wildlife - a better view on your doorstep".*
>
> *"They could put some seats along the river and picnic tables".*
>
> *"Gains - the river will be much better and improvement generally all around".*
>
> *"Gain more attractive amenity".*

"Practically and aesthetically improve the environment".

"Tidy up area - there can't be any losses if it improves it".

"It would make it a more natural parkland".

One respondent felt that if the river could be "stabilized" with regard to depth in sections 4, 5 and 6, these sections could gain from activities such as canoeing.

Losses mentioned included some possible loss of wildlife due to higher numbers of visitors and more noise. The loss of land for football and other games was mentioned along with the likelihood of more "hooligans" using the area and possibly vandalising any new planting. Reduced safety and increased risk of burglaries were a main concern for some respondents while others felt that the scheme might lead to increased flood risk. A few respondents also appeared concerned about the construction process itself and the subsequent disruption that this would cause, as well the safety issues involved with construction.

"Losses - you might lose a wee bit of land but not a lot".

"If made bigger more people would come, it would lose some of the wildlife due to noise".

"I do not mind extra rates for this scheme as long as they have a warden patrol and it's looked after for rubbish and breakage of the trees. Block the pathways off to stop the stolen cars being dumped there and when they ride around ploughing up the ground".

"Hooligan element may prevent growth of new plants etc".

A few respondents could not think of either gains or losses:

"No gains or losses that I can think of".

10. PUBLIC CONSULTATION

Research undertaken by FHRC has demonstrated that early, wide and continuing consultation is preferred by the majority of the public (Tunstall et al 1994). It was felt, therefore, that public consultation should be an important part of the restoration project. A public meeting was held in Darlington in December 1994 to present the restoration scheme to local residents and to obtain comments and views from the public about the proposals. An exhibition giving details of the proposed scheme was also set up in Darlington library, and people were able to leave comments regarding the scheme. In addition, they could contact the local Community Liaison Officer who had been appointed with any queries and concerns they might have about the proposals. Many local people did in fact contact the Liaison Officer with their views, and the exhibition is said to have been one of the most popular ever staged in the library.

The proposed scheme was also reported in local newspapers, and posters were placed in local shops and businesses detailing the proposals. Some local residents particularly living in close proximity to the river were contacted by the Liaison Officer and leaflets were left with them which outlined the proposals and gave contact telephone numbers in case of further queries.

10.1 Importance of consultation

In the survey, therefore, respondents were first asked how important they felt consultation over schemes, such as the one proposed, to be. To do this they were asked to rate the importance on a scale from 0 (not at all important) to 10 (very important). Just over half the respondents gave a rating of 10, indicating that they felt consultation to be very important (Figure 10.1). Nine percent gave a rating of 6 or under and only one respondent gave a rating value of zero. The mean rating was 8.7. Younger respondents aged under 30 showed a proportionately smaller number rating consultation as very important (rating 10) than other age groups.

10.2 Forms of consultation

Results from the earlier FHRC studies have shown that information should be passed on to the community in a number of ways (Tunstall et al 1994). In addition, information should be made available on two levels: detailed technical information for those able to understand this, and less technical information which is easily understandable to non-experts. When asked what form they felt that public consultation should take, the forms that most people felt it should take were letters or leaflets, newsletters, public meetings and personal visits (Figure 10.2). The least popular forms of consultation were a local referendum, posters and local television and radio. Another suggested form of consultation proposed by one respondent was that of local councillors' surgeries. Older respondents aged over 65 were more in favour of personal visits than younger respondents.

When asked which one of the forms of consultation they would prefer the most popular was letters or leaflets (24%) followed by personal visits (21%). Posters were the least preferred forms of consulting people (Figure 10.3).

During the pilot and main surveys many respondents expressed their gratitude at being able to give their views and opinions on the proposed scheme. They were pleased that local residents were being involved in the scheme and that they could perhaps influence decisions made about various aspects of it. This indicates the value of public consultation over such schemes and highlights the positive aspects of getting the community involved and working with them rather than against them.

11. POTENTIAL COMMUNITY INVOLVEMENT IN MANAGING THE RIVER

At the end of the interviews respondents were asked whether they would be willing to take part in a follow-up study after the proposed scheme has been completed. The vast majority of respondents (93%) said that they would be willing to be re-contacted. Most of those who did not want to be re-contacted do not visit the river.

Respondents were also asked whether they would be interested in taking a more active part in decisions taken about the river and in the management of the site. Just over one third of respondents (37%) said that they would like to be more involved in decision-making and management of the site. This is quite a high proportion and appears to indicate the interest taken by local residents in the river area. Again, higher proportions of those who would like to be involved were visitors to the river and park area. Perhaps not surprisingly, no respondents aged over 72 wanted to take an active part in decision-making.

These findings indicate that there is, therefore, scope to develop community links and involvement and the possibility of getting people to actively take part in, for example, local conservation projects. It may prove, therefore, fruitful to contact those respondents who have expressed an interest in becoming more involved, with the idea of setting up a local community group or forum.

12. CONCLUSIONS

12.1 Characteristics of respondents

Respondents were almost equally divided between males and females. The majority were middle aged, had completed full-time education at or before the age of 18 and had an average household income of between £15,001 and £20,000. Most also owned their homes and had lived in the local area for an average of 17 years. Almost half the respondents lived in households with children aged up to 17 years, although 16% were made up of people aged 65 and over only.

Membership of, and support for, environmental or community groups was low among respondents which could indicate that the level of interest in environmental and other issues is also low. However, results appear to show that respondents do value their local environment as a recreational resource. In fact one third of respondents said that they were interested in taking a more active part in decisions taken about the river and in the management of the site.

12.2 Use of the river and surrounding area

Findings show that the river and surrounding area are well used by local residents for informal recreation activities. The majority of respondents (85%) visit the river, many on a regular basis both in summer and winter. The existing footbridge at Hutton Avenue is also used frequently by the respondents, as are the existing footpaths by the river. Section six was the most visited part of the river, inevitably due to the fact that the footbridge is located in this section. Respondents spend on average between 16 and 30 minutes when visiting the river.

A variety of reasons were displayed by respondents for visiting the river and parkland, the most popular being walking and access to elsewhere. Walking the dog and wildlife were other reasons for visiting given by some respondents.

12.3 Current perception of the river and surrounding parkland

The main attractions of the study area were said to be the quiet open space, the more natural habitat, plants and other vegetation, and the wildlife. Several features that were mentioned by respondents as aspects they disliked about the area were the dog fouling, the dirty and smelly river, rubbish and litter. A number of respondents also mentioned the local 'vandals' who use the area.

The river overall was seen as fairly attractive, although this varied depending upon the section of the river concerned. Sections 5 and 6 were seen as being the most attractive, while section 1 was the least attractive.

Respondents' views on many aspects of the river and parkland were mixed and were seen to be influenced by factors such as sex, age, levels of education and income, and whether or not they visit the river. The grass areas were generally seen as being favourable, however, many respondents were more negative regarding the plants and trees in the area; both of these were thought in need of improvements. Even more negative were respondents' views on the quality of the water in the river, which was perceived as being polluted. In contrast to this, respondents' views on the river as a habitat for wildlife were more positive. Views were mixed on the wetland and pond areas and on the concrete river banks and walls. Although the latter were thought to be unattractive, they were felt to be necessary as retaining walls and for flood defence. Sections 4 to 6 of the river in the study area were generally thought to be more interesting and attractive than Sections 1 to 3, and access to the river was felt to be good overall.

The open space for recreation activities was seen as being good by some respondents and bad by others. No formal recreation takes place by the river and some respondents appeared happy to keep things this way. The maintenance of the riverbeds and banks was generally seen as satisfactory although some respondents did feel that this aspect could be improved. Similarly, many felt that the river area could be much cleaner, the main problem being the dog fouling. It was suggested that if this were to be improved, it would make visiting the river much more enjoyable for many local residents.

Safety aspects of the river area were of concern to local residents and many rated this aspect of the river negatively. Many respondents commented that they felt the river to be unsafe for children as there were no barriers to stop them from falling into the water. Respondents with children in their households were particularly concerned about this aspect. Other respondents, however, felt that safety was not a serious issue. The issue of flooding was seen as problematic by some respondents. Many felt that this aspect of the local area did not affect them personally, although some did feel that it may have negatively affected house prices in the area. Views on the amount of flooding in the area were therefore mixed.

Some respondents were of the opinion that the existing footbridge is in need of repair, while opinions on the existing footpaths were divided. Maintenance of the paths was generally felt to be poor and complaints were made of the nature of the surface of some of the paths which made walking with prams or wheelchairs difficult.

12.4 Perceptions of the proposed river restoration scheme

The proposals for the river restoration scheme were generally welcomed by the majority of the respondents and seen as being a great improvement to the local area. The vast majority of respondents (92%) were in favour of the river restoration scheme, 71% strongly in favour. It was felt by 64% of respondents that they would visit the river more often if the proposed scheme were to be carried out, and one third of respondents said that it would not alter their visiting patterns. Moreover, 90% of respondents felt that they would get more enjoyment from visiting the river should the scheme be completed, and over half felt that they would get much more enjoyment from their visits.

Comments were made by respondents on the additional vegetation, with many being in favour of the increased planting and landscaping. The proposed wetland and pond areas were also thought to be good, particularly for attracting more wildlife to the area. Many liked the return to what they felt to be a more natural landscape, especially with the re-introduction of meanders into the river. The possibility of using the river area as an educational resource for local schools was also suggested by some respondents. There is already some use of the site for this purpose which could be easily extended. The river could be more extensively used for project work by both primary and secondary school pupils.

Concern was expressed by a minority of respondents as they felt that the additional vegetation would provide cover for criminals such as burglars and would therefore lead to a possible increase in crimes in the area. Other respondents felt that the bushes might be used by youths taking drugs or engaging in other unsociable activities. These concerns suggest that the question of the location of new planting should be carefully considered and should, where possible, take account of these concerns.

The proposal of an additional footbridge near to housing estates was also considered as providing another getaway route for criminals. It should be noted that the main objections to the proposed scheme were largely due to these fears, therefore, it is highly desirable that additional lighting or other security measures be introduced as part of the scheme to help alleviate respondents' concerns.

Vandalism was another fear of respondents. Much planting had apparently been destroyed in the past and some felt that any additional landscaping in the area would be a waste of time and money. It was also suggested that unless the additional planting is well maintained, any benefits arising from it will be short-lived. Moreover, as youths are said to congregate around the existing footbridge, the proposal of an additional bridge led to fear among some respondents that a similar situation will occur at a new bridge. Related to this is the problem with motorbikes using the footpaths as speed tracks. It was felt by some respondents that new formal footpaths will only exacerbate this and lead to a dangerous situation for those using the paths. It could be said, however, that increased interest in and use of the river would deter potential vandals and limit damage as there would be a higher risk of being caught.

On the whole, however, the idea of an additional footbridge and footpaths was welcomed by the majority of respondents, very few respondents totally rejected these proposals. It was generally felt that the new bridge and paths (preferably paved or tarmac) would open up parts of the river area currently not easily accessible and that it would be possible to enjoy a circular walk using both sides of the river. The most preferred location for an additional footbridge was Location B near the Rockwell Nature Area. However, the majority of respondents were in favour of having the existing bridge refurbished **as well as** having an additional bridge.

For a few respondents who were against the idea of another bridge and new footpaths, and the scheme generally, this was not because they were against the idea of river restoration, but largely because they felt that it would attract more people to the area which they felt would largely be undesirable. It is interesting that some of those living nearer the river, although favouring a more natural environment, and arguably being those who would benefit

most from the scheme, were actually the ones opposing it due to the perceived increase in visitors that it is likely to attract.

12.5 Economic benefits from restoring the river

Results from both the enjoyment valuation and willingness to pay method questions in the survey suggest that there is a significant monetary benefit to be obtained in improving the river and surrounding parkland. These benefits would be both in terms of increased visits by the respondents and possible visits by new local visitors. However, no investigation was carried out to determine whether people would substitute a visit elsewhere for a visit to the River Skerne. It should be emphasised, however, that the results obtained need to be treated tentatively, as the population sample was too small for a reliable CVM study to be undertaken.

The restoration scheme would result in increased enjoyment value for respondents who visit the river, moreover, many respondents would visit more often. Over half of the respondents who visit the river were able to place a monetary value on their enjoyment of their visits. Some respondents, however, felt that it was impossible to value their visits to the river in monetary terms, both before and after a restoration scheme.

Respondents were willing to pay significant sums in additional national and local taxes each year for a River Skerne scheme. These findings are broadly comparable with other FHRC studies.

12.6 Perception of gains and losses from restoring the river

The scheme was generally seen as providing many gains in the form of an increasingly pleasant river environment, improved water quality and a general clean-up of the site. It would lead to increased conservation of the area and provide an educational resource for both adults and children alike. It was also expected by the majority of respondents that the proposed restoration would result in an increase of wildlife and wildlife habitats in the area. Similarly, it was felt that informal recreational opportunities would also be increased.

The issue of safety and security was one raised by many respondents. This was interpreted differently by different respondents, some referring to security and personal safety from attack when visiting the river, burglaries etc. while others saw it as referring to the safety of the river ie there being less likelihood of people falling in. Overall, the majority of respondents felt that changing the river would either lead to it being more safe or would not make any difference. However, residents' concerns regarding this issue would perhaps need to be addressed where possible. This could be more easily achieved regarding the safety of the river but obviously less easily for personal safety concerns.

Apart from the safety issue, other losses perceived by respondents included the loss of some of the recreational areas, the disruption during the construction process and the possibility of increased vandalism.

12.7 Public consultation and involvement in site management

Findings showed that respondents give a high importance to the issue of public consultation, half of them rated this as very important. The most preferred form of consultation is letters or leaflets, although personal visits and public meetings were also quite popular. Many respondents were pleased to have been consulted over the proposed scheme, which gave them the feeling of being involved and that their views were regarded as important.

Consultation should, therefore, be an ongoing process through all stages of project development including the construction stage. It is important to keep local people informed and deal with any concerns they may raise. There is, therefore, a need for continuing liaison between the scheme contractors and local residents. This could take the form of an on-site notice board detailing the work in progress, or it could be in the form of a local newsletter distributed to nearby properties. The Community Liaison Officer is also important in dealing with any queries raised and playing a bridging role between the local residents and the contractors.

This also provides the opportunity for involving the local residents more in decision making regarding the management of the site. One third of respondents in the survey expressed an interest in taking a more active part in this area and this appears to be a valuable opportunity to utilise local resources ie people and their skills and knowledge. One possibility could be the establishment of a local community forum for those interested in pursuing their involvement in the management of the site.

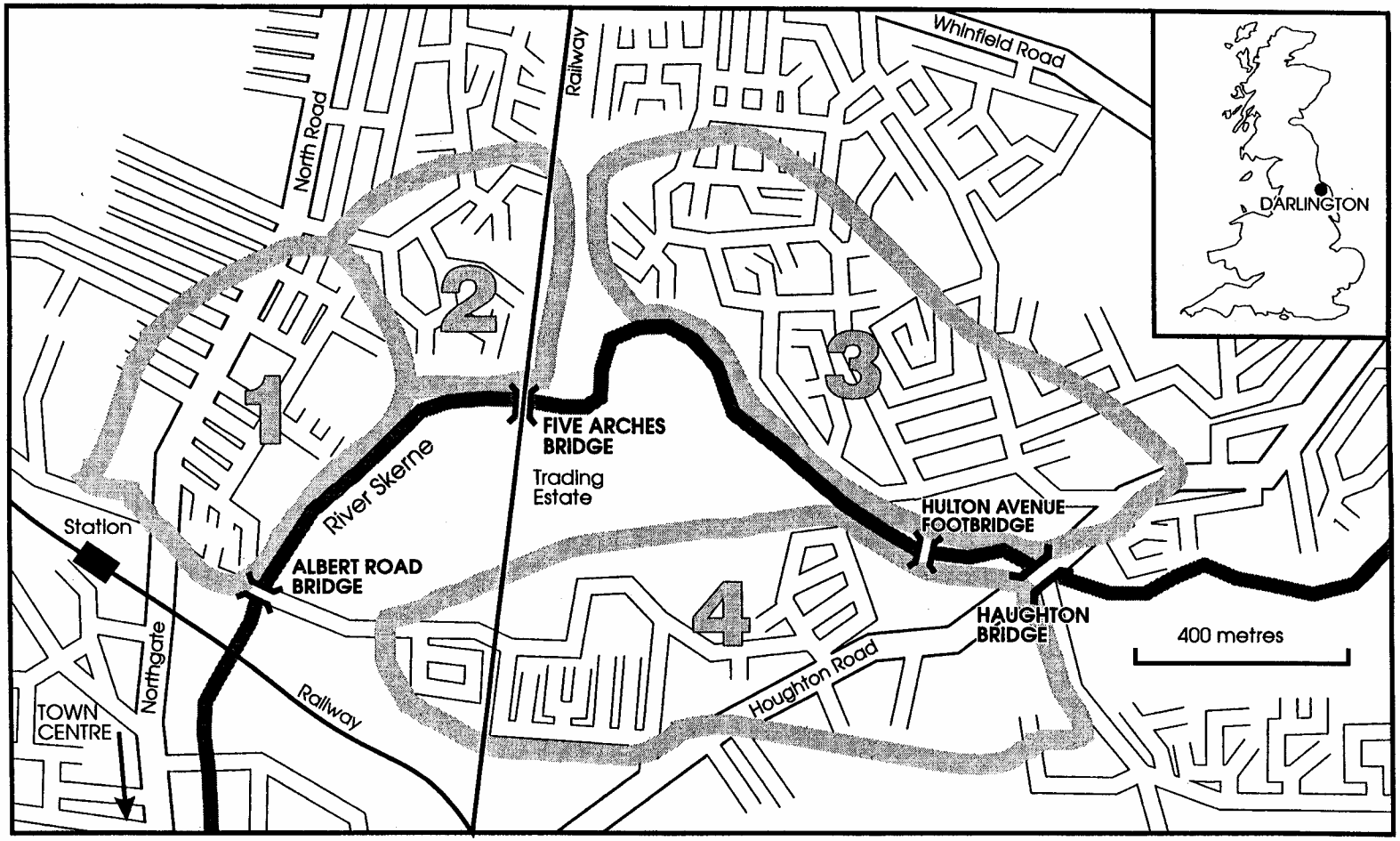


Figure 1.1 Map of survey area

Figure 3.1
Frequency of visits to the river

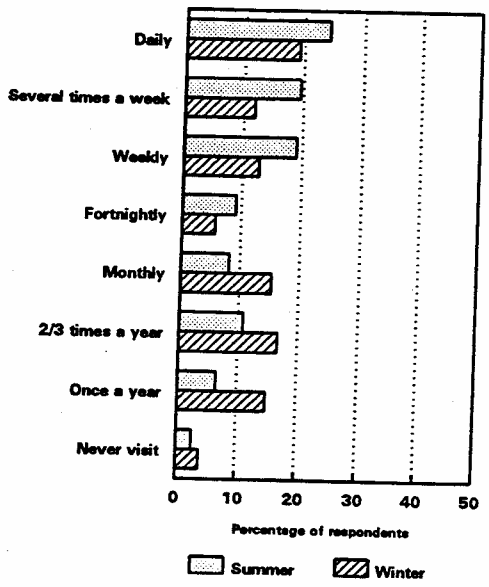


Figure 3.2
Section of river visited: percentage of respondents

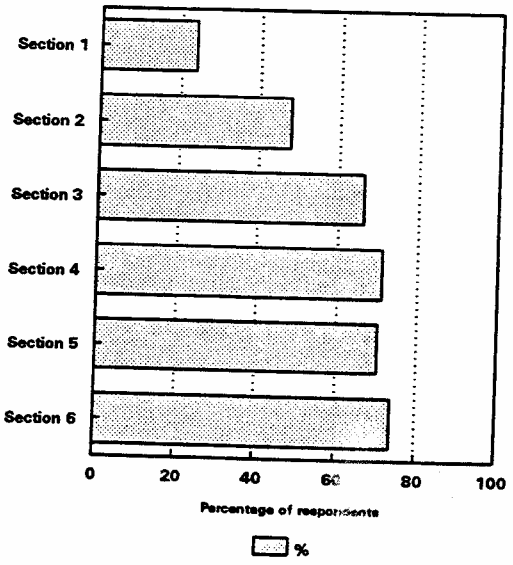


Figure 3.3
Purpose of visit to river: percentage of respondents

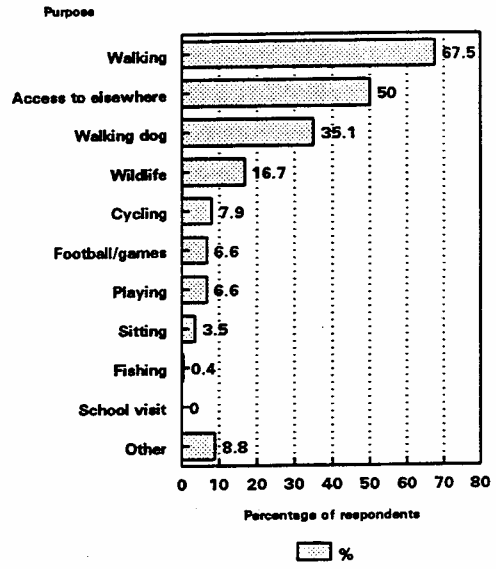


Figure 3.4
Time spent visiting the river

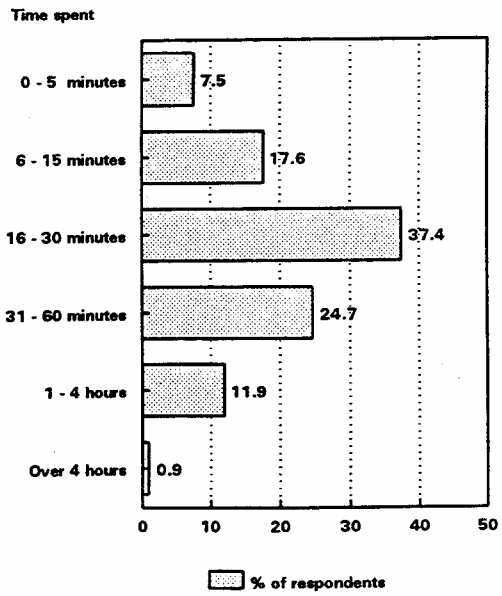
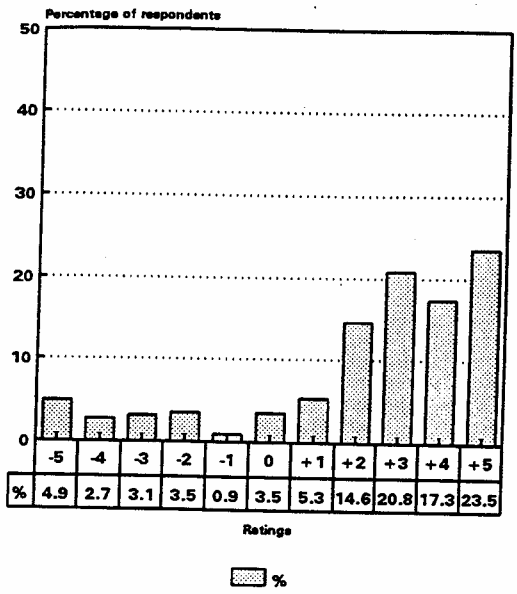
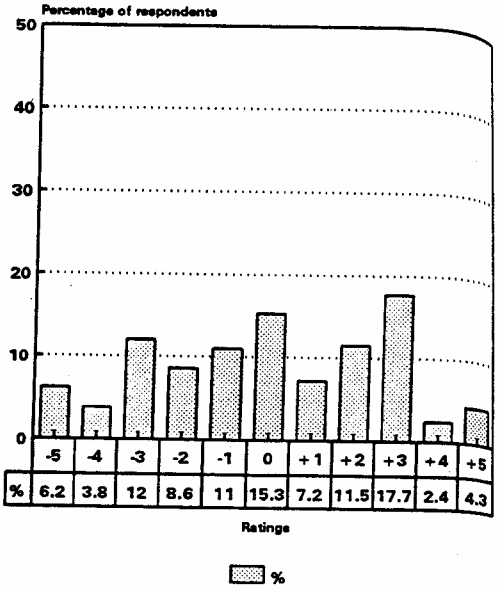


Figure 4.1
Rating of mown and unmown grass



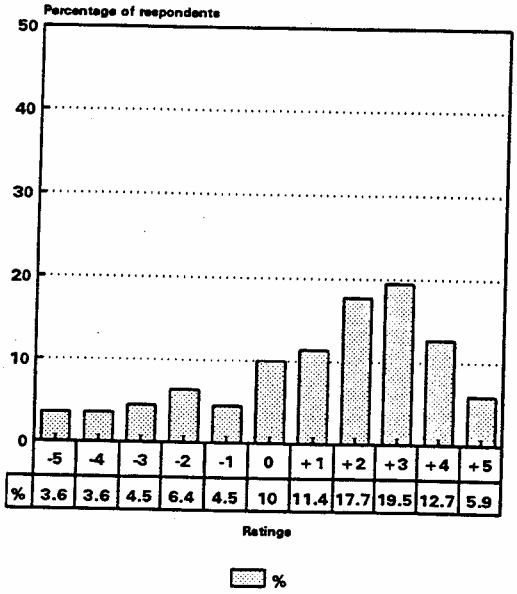
Rating: -5 = very bad, +5 = very good

Figure 4.2
Rating of amount and type of plants



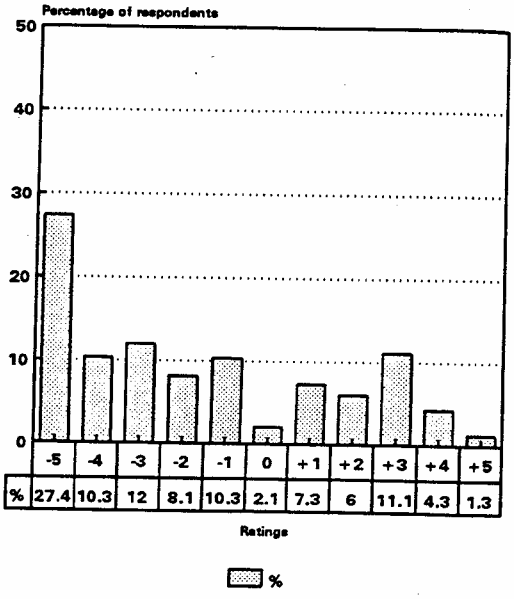
Rating: -5 = very bad, +5 = very good

Figure 4.3
Rating of amount and type of trees



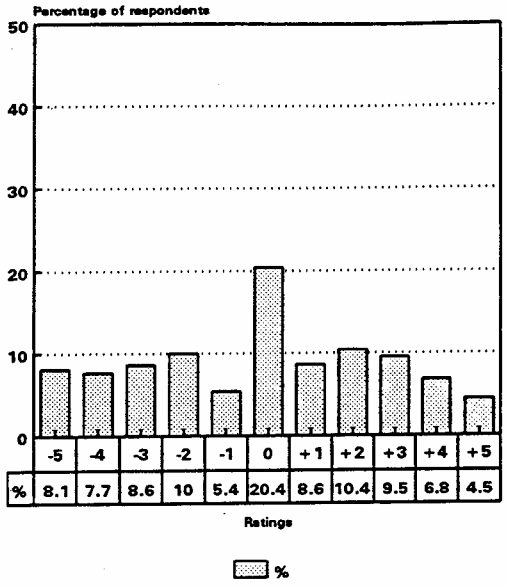
Rating: -5 = very bad, +5 = very good

Figure 4.4
Rating of quality of water



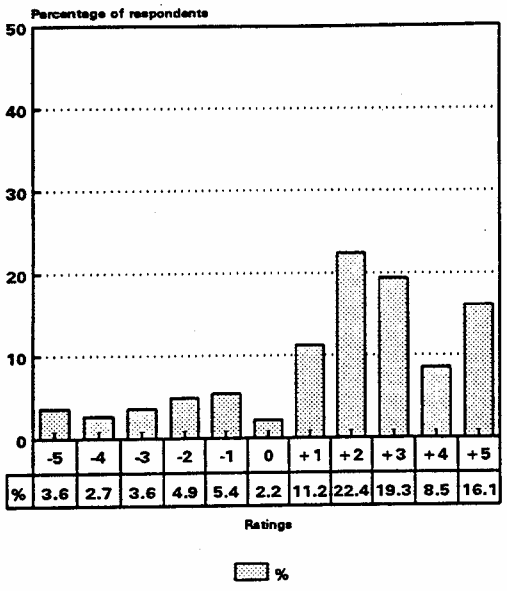
Rating: -5 = very bad, +5 = very good

Figure 4.5
Rating of amount of flooding



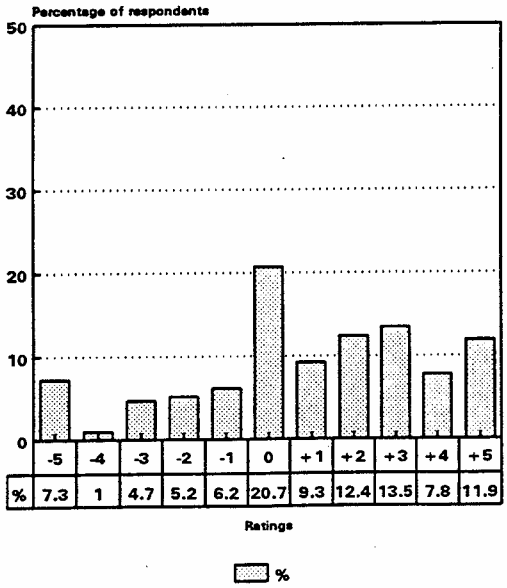
Rating: -5 = very bad, +5 = very good

Figure 4.6
Rating of river as wildlife habitat



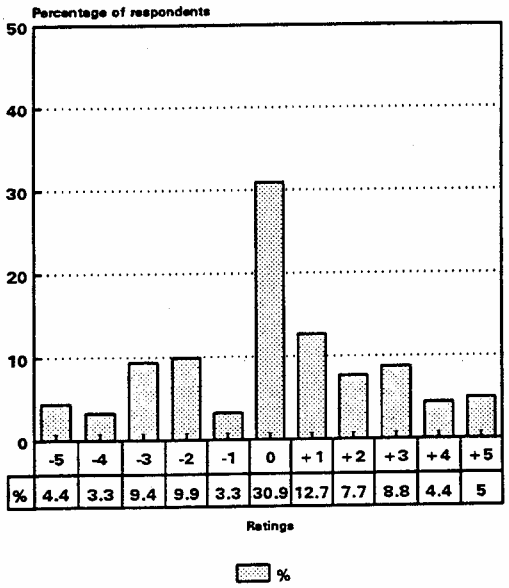
Rating: -5 = very bad, +5 = very good

Figure 4.7
Rating of wetland and pond areas



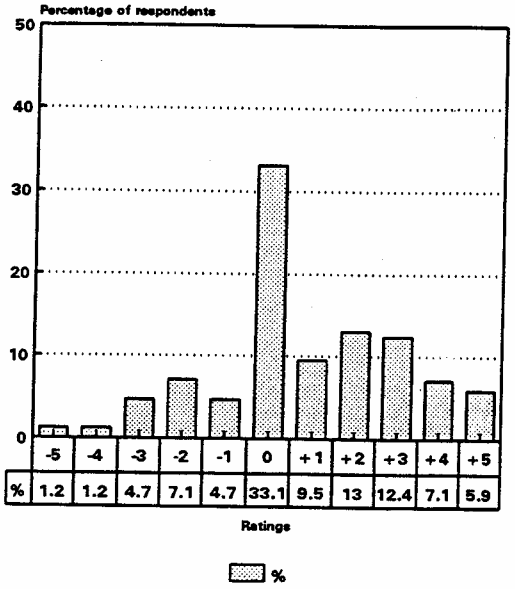
Rating: -5 = very bad, +5 = very good

Figure 4.8
Rating of concrete river banks/walls



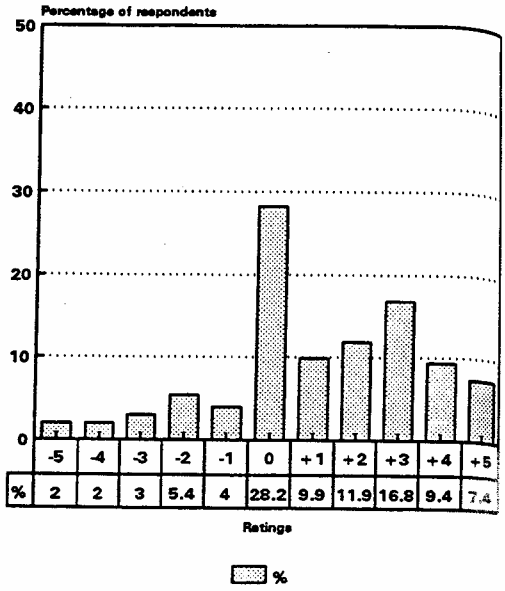
Rating: -5 = very bad, +5 = very good

Figure 4.9
Rating of shape of channel Sections 1-3



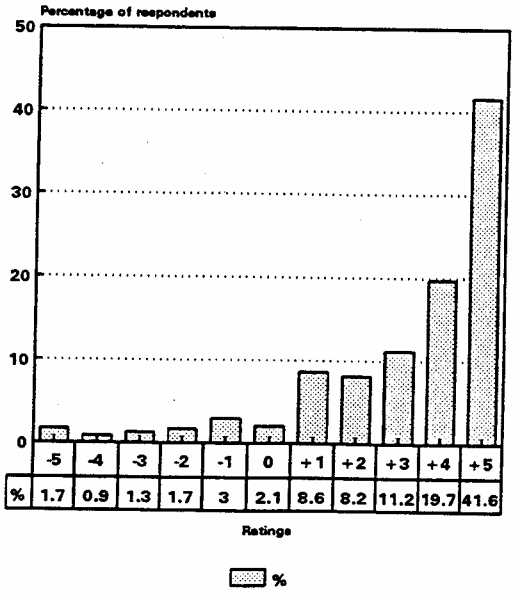
Rating: -5 = very bad, +5 = very good

Figure 4.10
Rating of shape of channel Sections 4-6



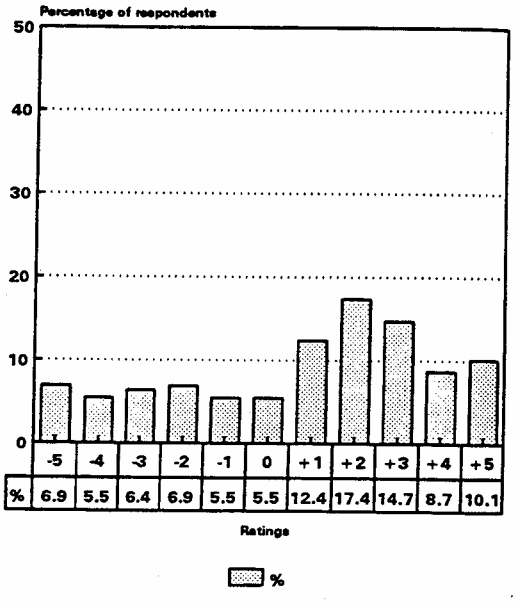
Rating: -5 = very bad, +5 = very good

Figure 4.11
Rating of access to river



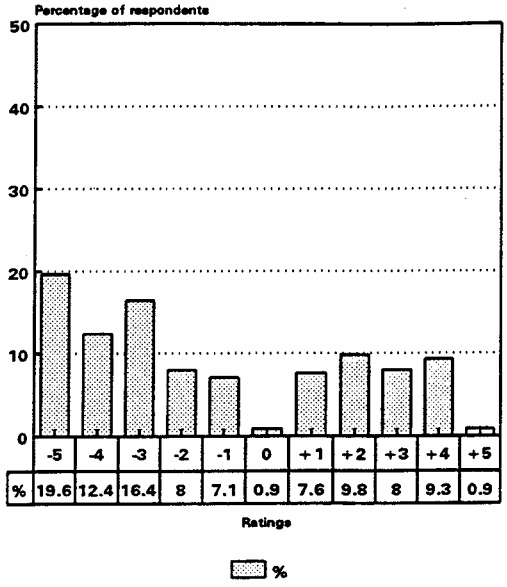
Rating: -5 = very bad, +5 = very good

Figure 4.12
Rating of maintenance of riverbed/banks



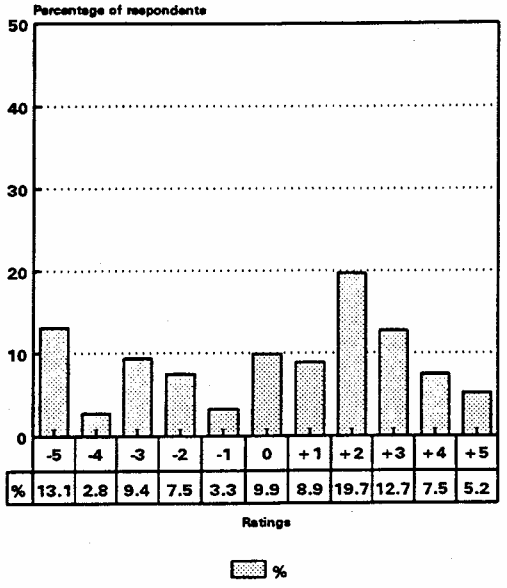
Rating: -5 = very bad, +5 = very good

Figure 4.13
Rating of cleanliness of river/banks



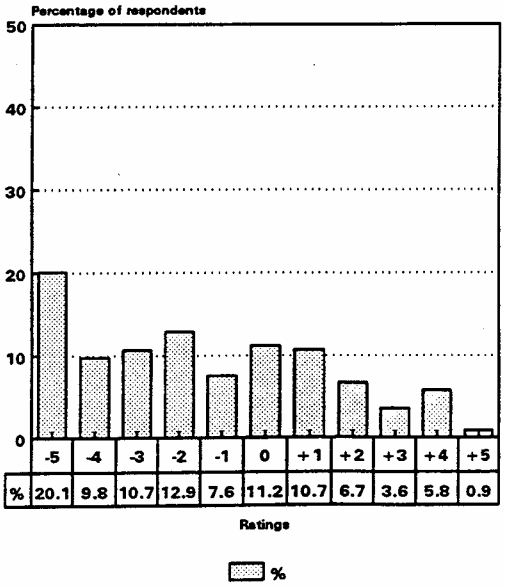
Rating: -5 = very bad, +5 = very good

Figure 4.14
Rating of recreational areas



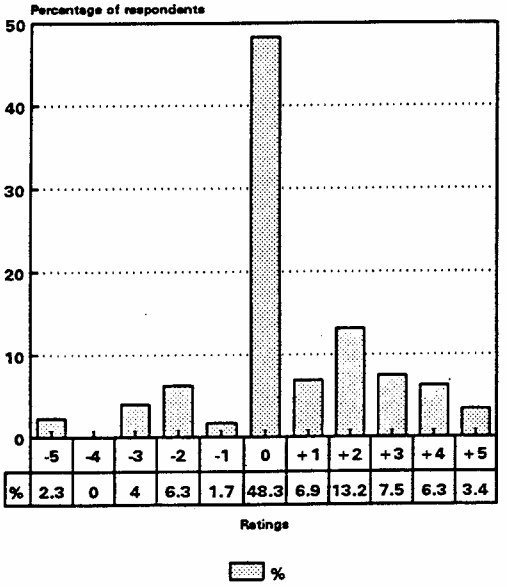
Rating: -5 = very bad, +5 = very good

Figure 4.15
Rating of safety of river area



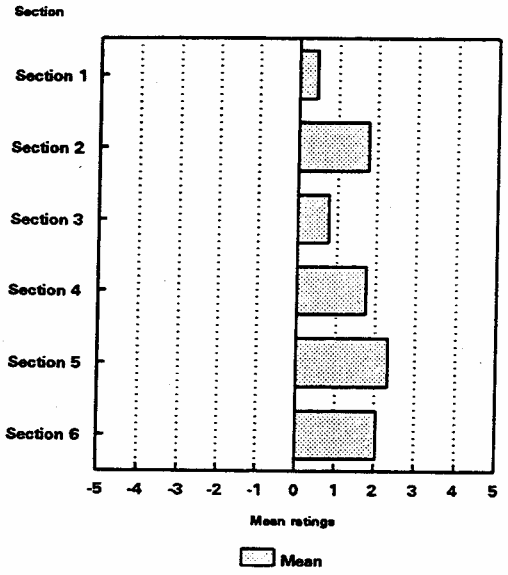
Rating: -5 = very bad, +5 = very good

Figure 4.16
Rating of effect on house prices



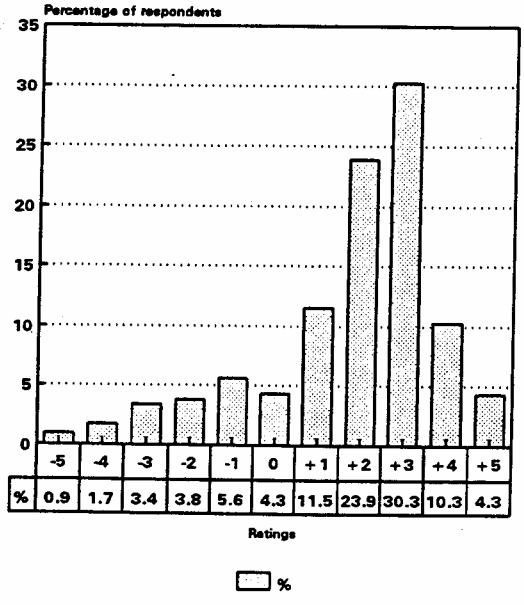
Rating: -5 = very bad, +5 = very good

Figure 4.17
Mean ratings of the attractiveness of the river, by section



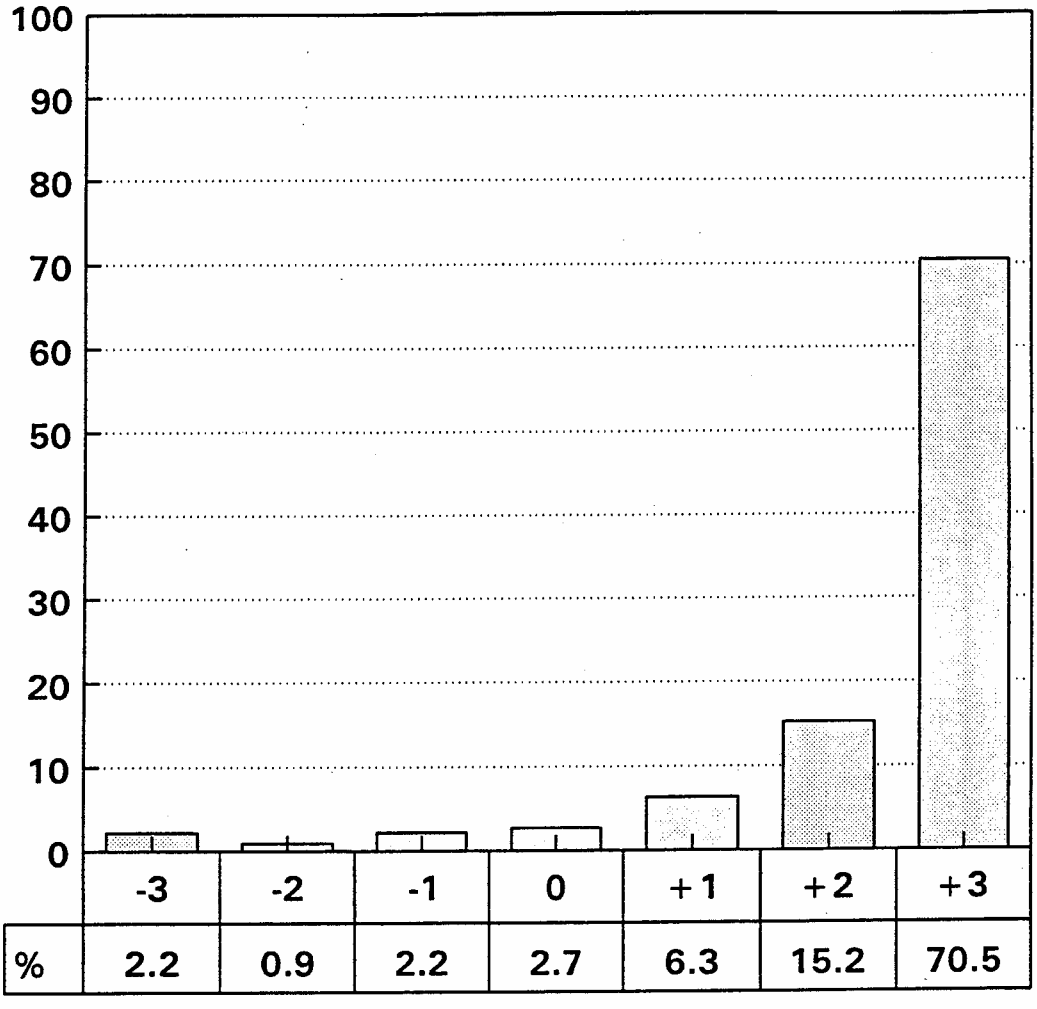
-5 = very unattractive, +5 = very attractive

Figure 4.18
Rating of attractiveness whole river



-5 = very unattractive, +5 = very attractive

Figure 6.1
Ratings in favour or against scheme
Percentage of respondents visiting river



	-3	-2	-1	0	+1	+2	+3
%	2.2	0.9	2.2	2.7	6.3	15.2	70.5

-3 = strongly against scheme
+3 = strongly in favour of scheme

Figure 8.1
Use of Hutton Avenue footbridge by area of residence

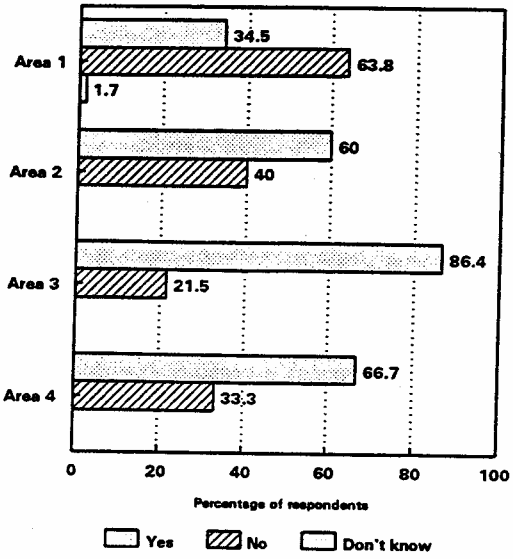
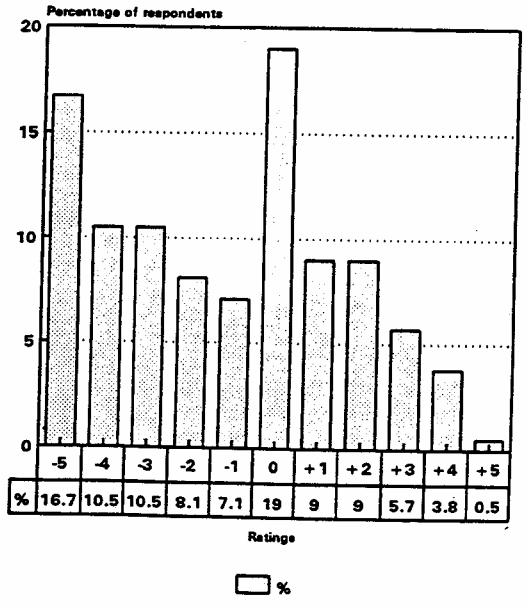


Figure 8.2
Rating of appearance of footbridge



Rating: -5 = very bad, +5 = very good

Figure 8.3
Use of current footpaths by area of residence

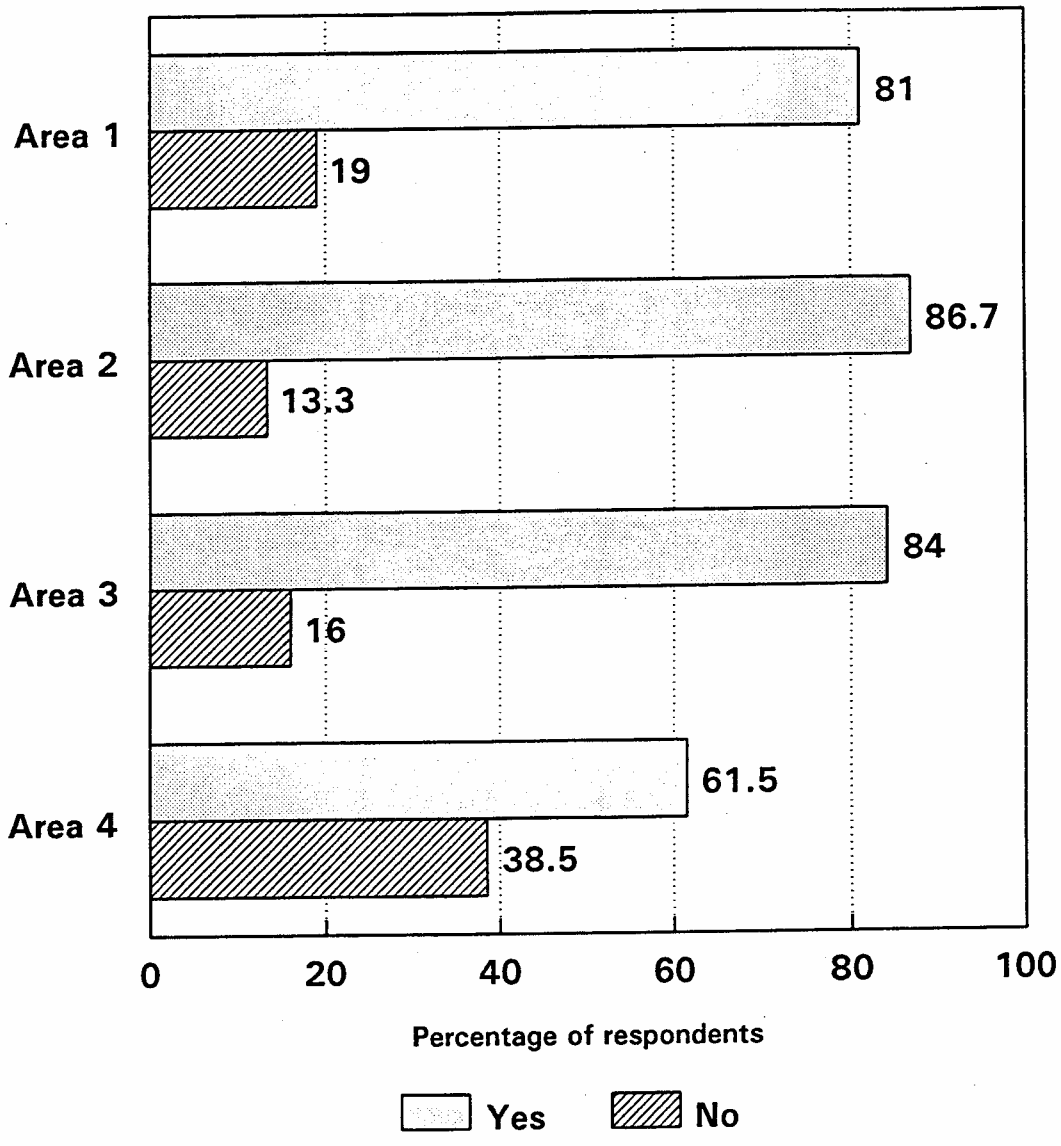
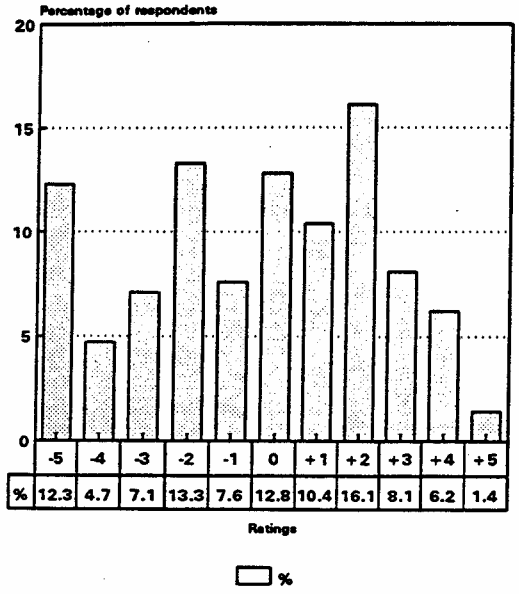
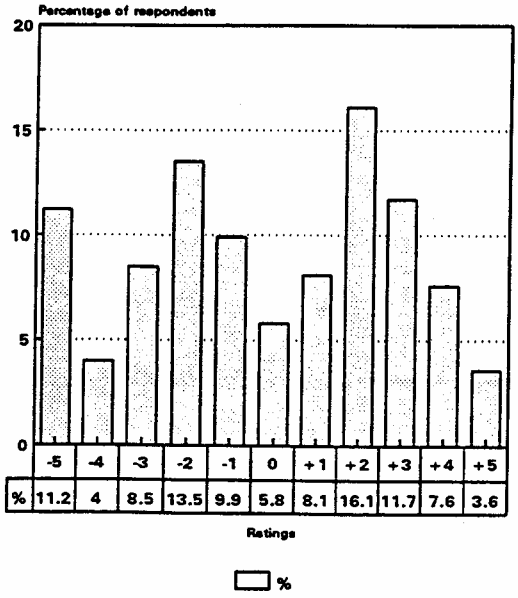


Figure 8.4
Rating of maintenance of footpaths



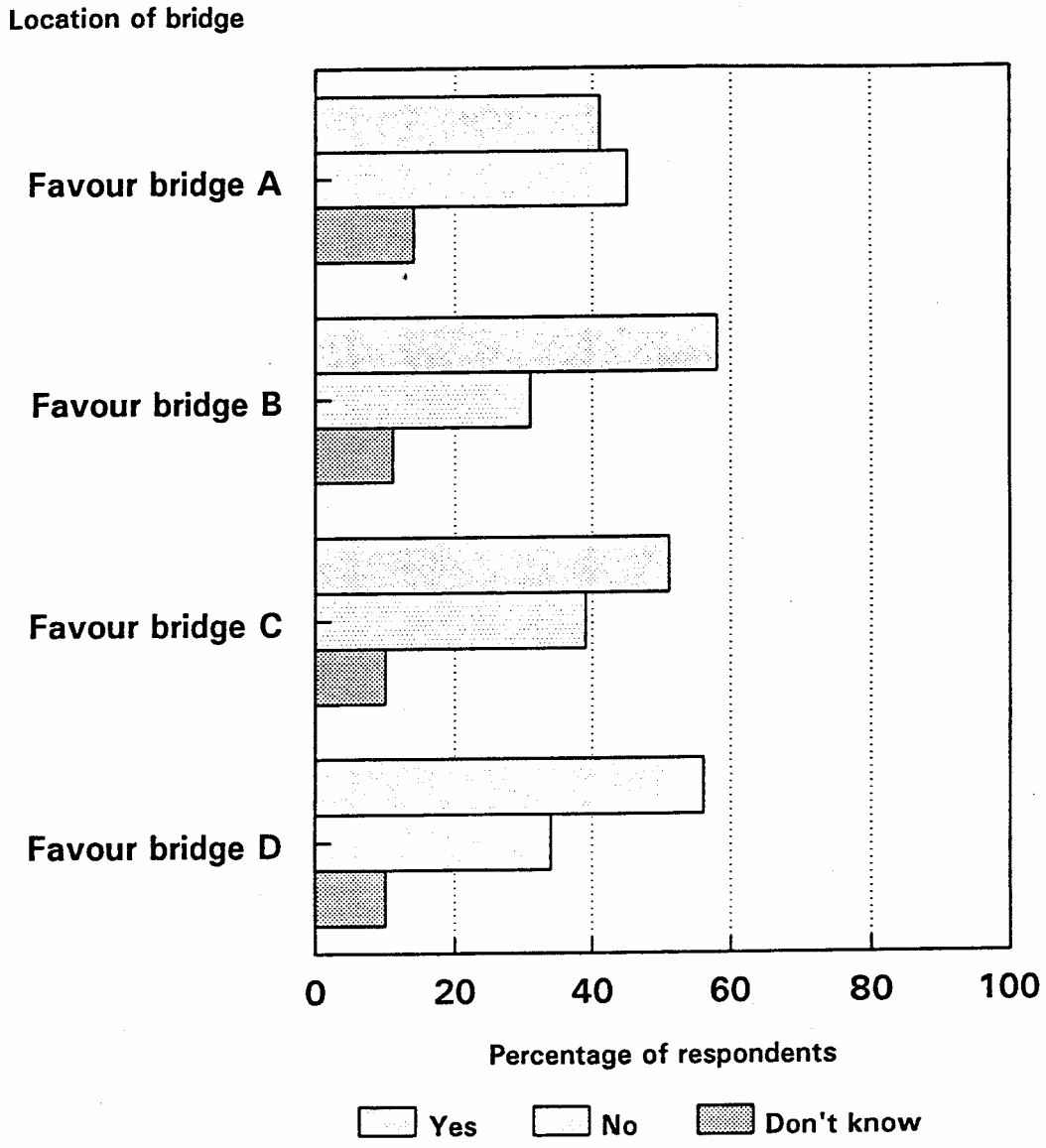
Rating: -5 = very bad, +5 = very good

Figure 8.5
Rating of nature/surface of footpaths



Rating: -5 = very bad, +5 = very good

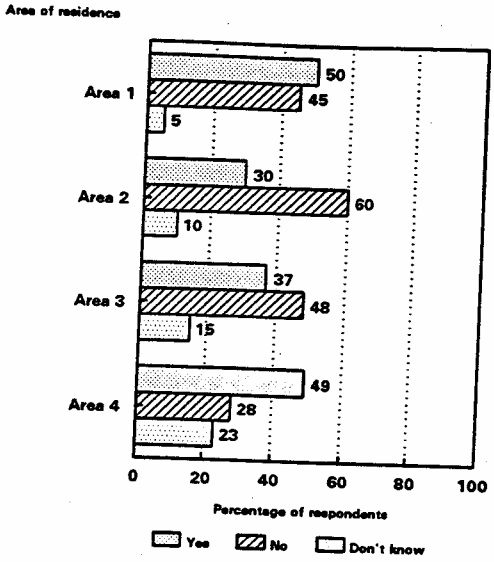
Figure 8.6
Preferences for location of additional footbridge



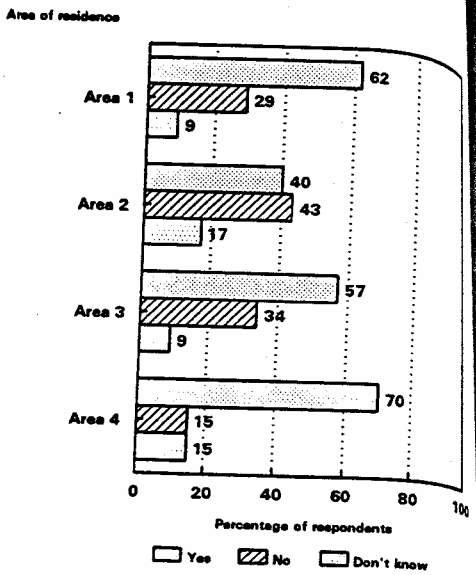
Total respondents

Figure 8.7

Respondents in favour of proposed footbridge in location A *

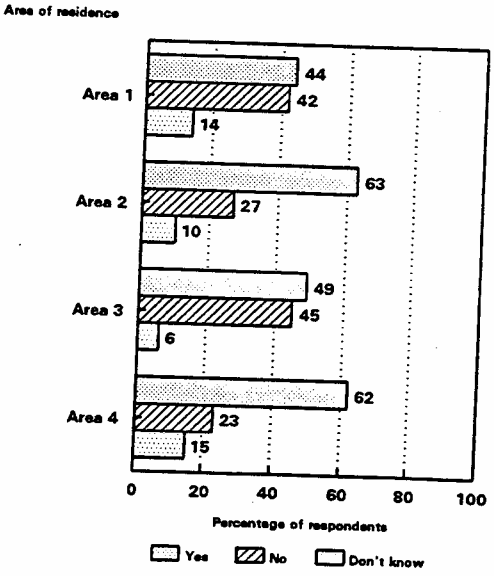


Respondents in favour of proposed footbridge in location B



* = chi-squared significant

Respondents in favour of proposed footbridge in location C



Respondents in favour of proposed footbridge in location D

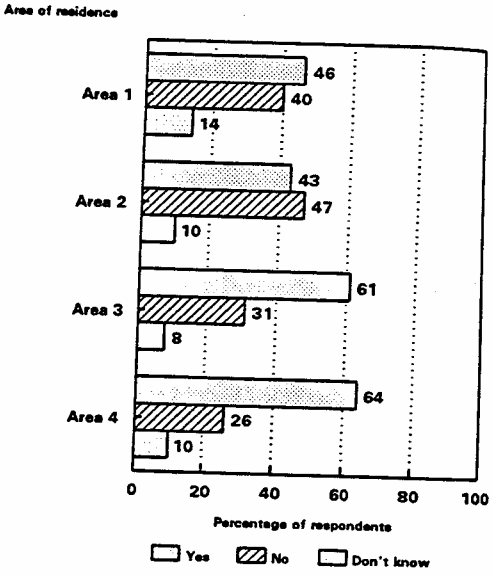
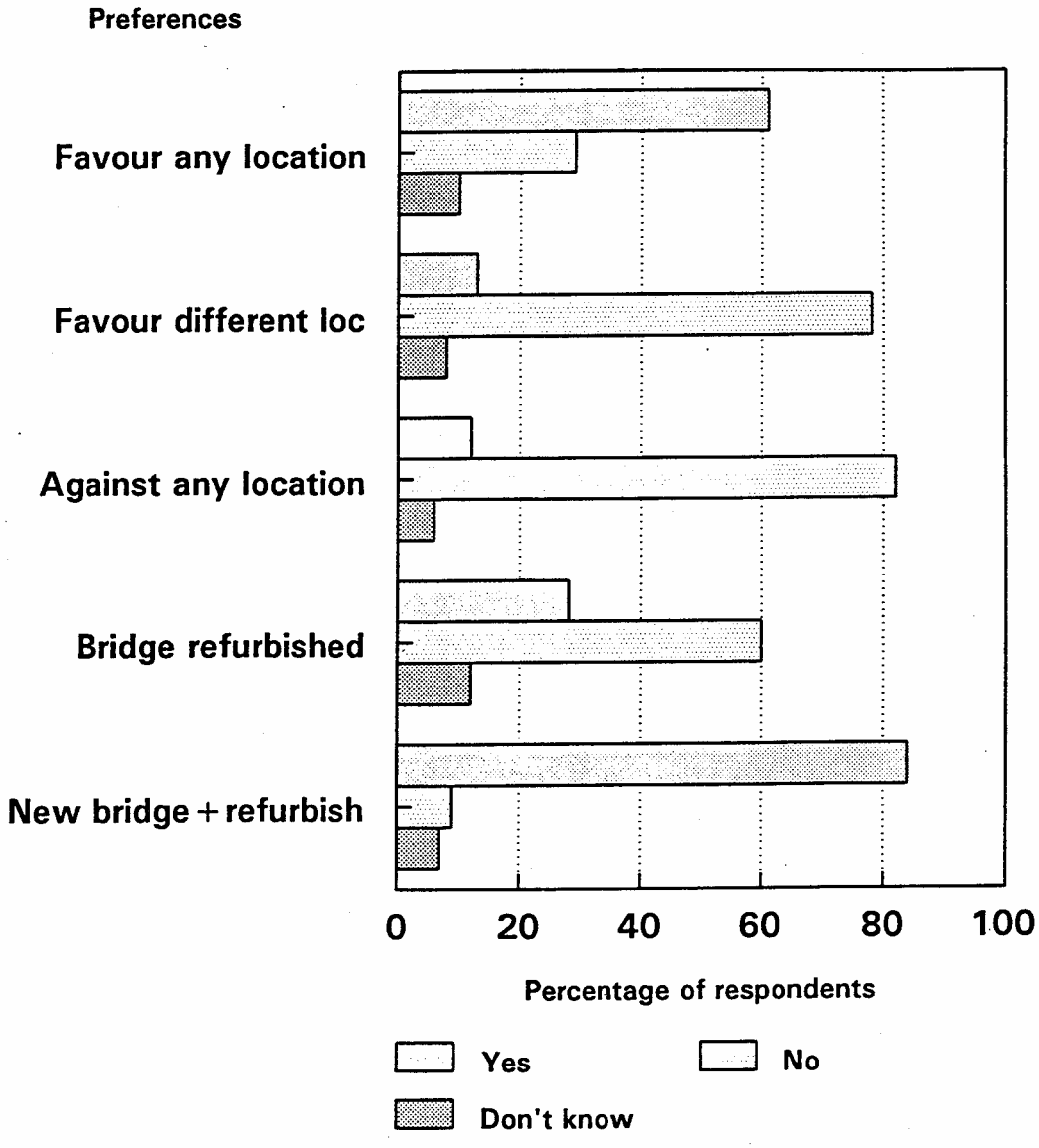


Figure 8.8
Preferences for location of additional footbridge



Total respondents

Figure 8.9
Respondents against new bridge

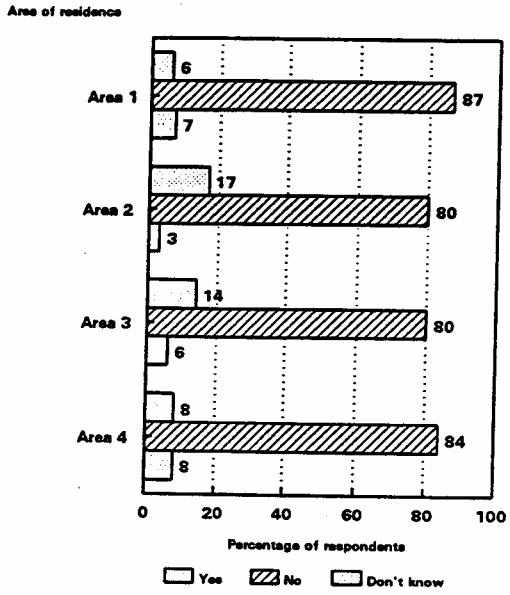
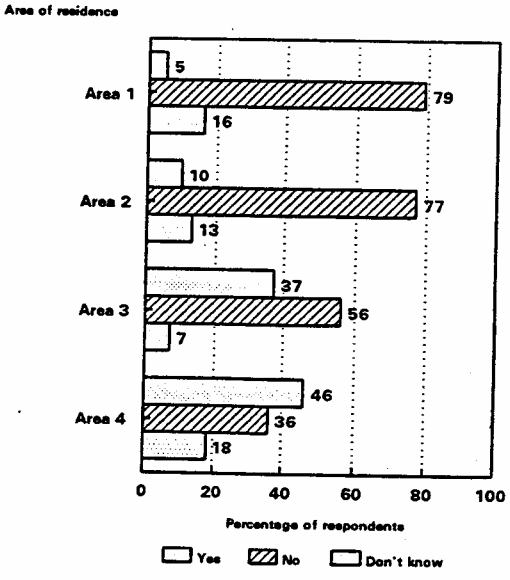


Figure 8.10
Respondents in favour of existing bridge refurbished



* = chi-squared significant

Figure 9.1
Safety after restoration

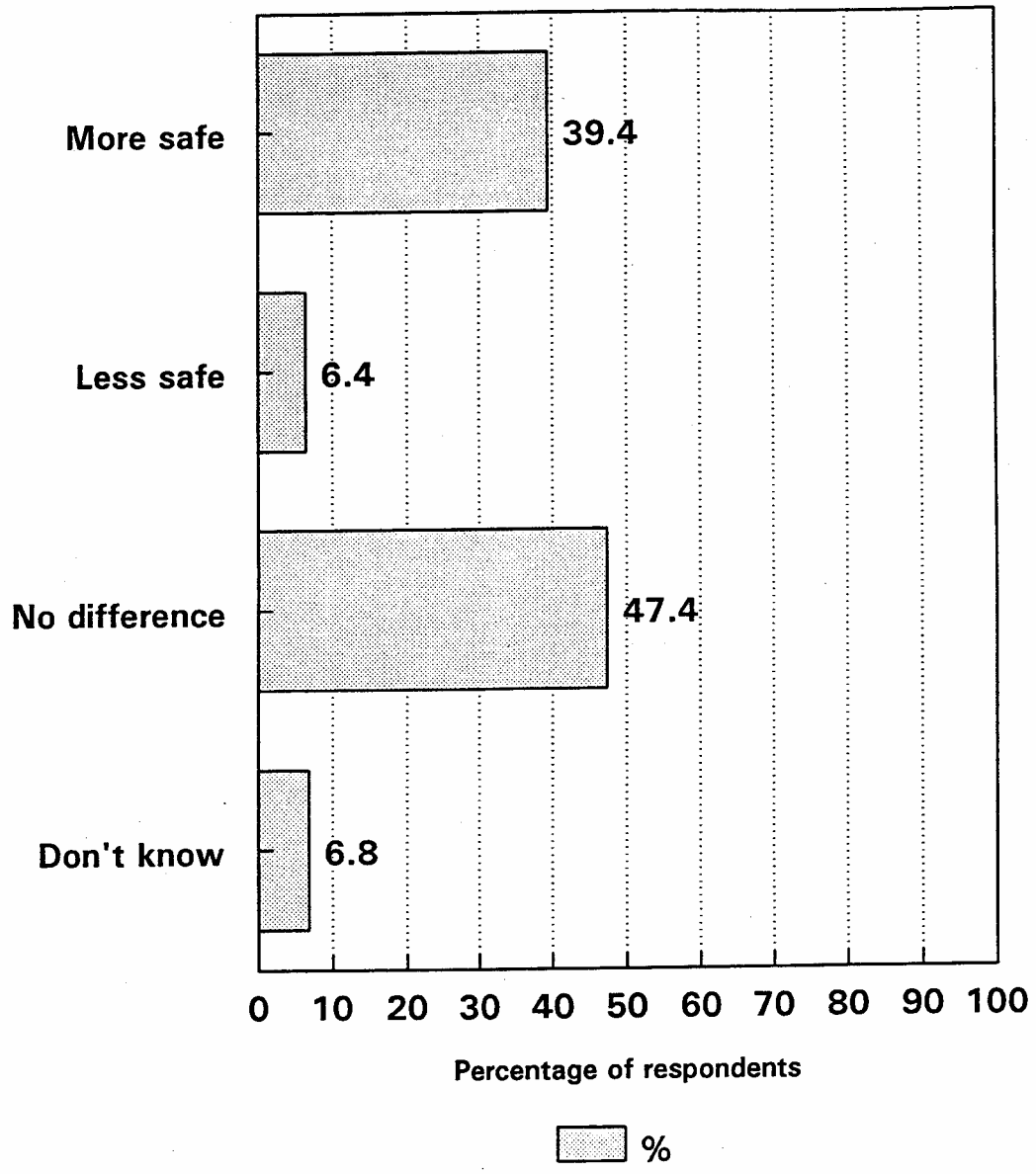


Figure 9.2
Opportunities for wildlife after restoration

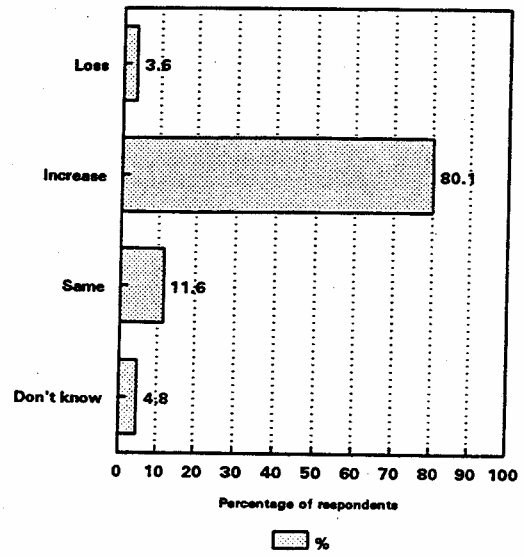


Figure 9.3
Opportunities for recreation after restoration

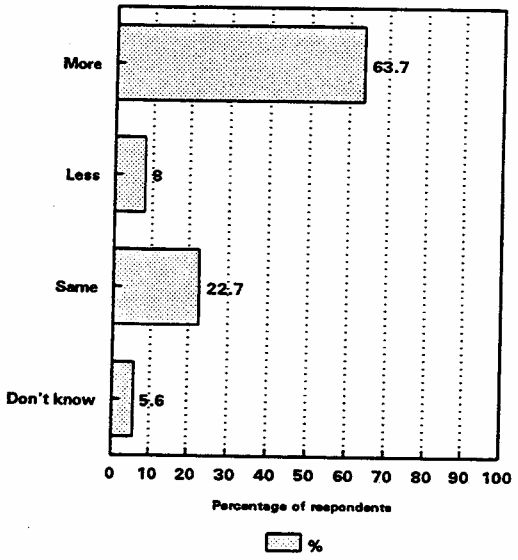
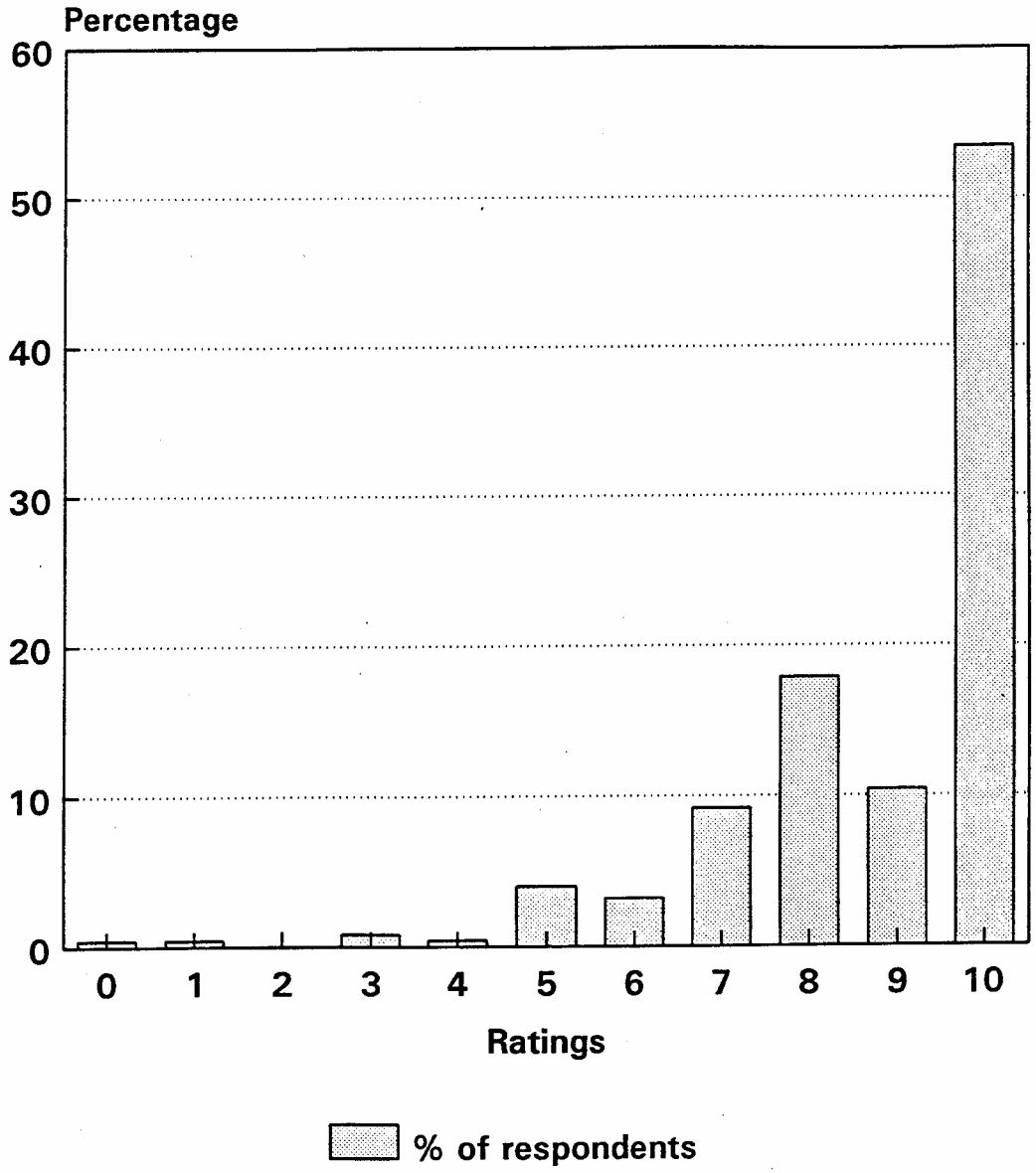


Figure 10.1
The importance of public consultation



0 = Not at all important
10 = Very important

Figure 10.2
Forms of consultation favoured by respondents

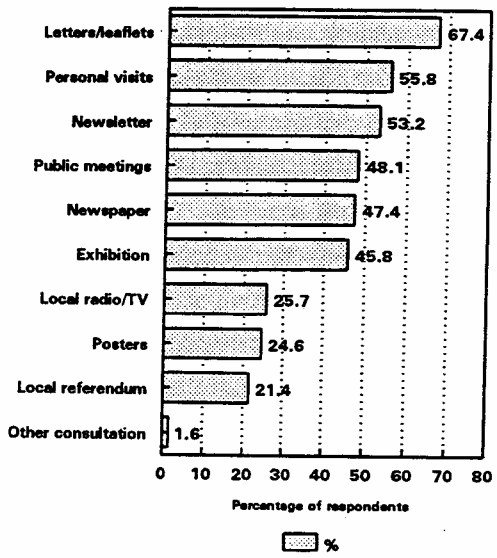


Figure 10.3
Preferred form of consultation favoured by respondents

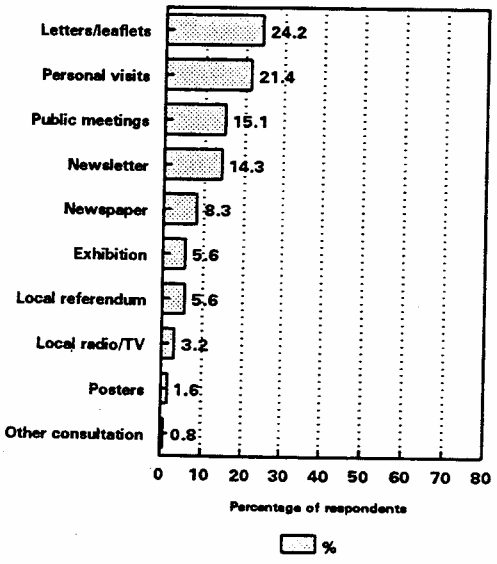


Table 1.1 **Response from the River Skerne Survey**

Interviews	Refusals	No contact	Empty properties	Addresses not used	TOTAL ADDRESSES
252	180	134	8	41	615
Percentage response rate from all addresses targeted					
41%	29%	22%	1%	7%	100%
Percentage response rate after subtracting no contacts, empty properties or those addresses not used					
58%	42%	-	-	-	

Table 2.1 Characteristics of respondents

SEX	
Males	51%
Females	49%
AGE	
Under 30	12%
30-65	70%
65 and over	19%
AGE COMPLETED FULL-TIME EDUCATION	
Of those completed education:	
18 and under	94%
19 and over	6%
Still in full-time education	2%
NUMBER OF PEOPLE IN HOUSEHOLD	
1	8%
2	34%
3	23%
4	24%
4+	10%
COMPOSITION OF HOUSEHOLDS	
Children aged 10 and under	28%
Children aged 11-17	21%
Adults aged 18-64	84%
Adults aged 65 and over	7%
Adults aged 65 and over only	16%
TENURE	
Own home	77%
Rent from council	15%
Other	8%

INCOME	
Under £5,000	12%
£5,000-£10,000	8%
£10,001-£15,000	11%
£15,001-£20,000	10%
£20,001-£25,000	5%
£25,000 plus	9%
Refused	21%
Don't know	24%
RESPONDENTS IN FOUR AREAS OF SAMPLE	
Area 1	23%
Area 2	12%
Area 3	50%
Area 4	16%
DISTANCE FROM RIVER	
Riverside	7%
Within 250 m	27%
250-500 m	31%
500 m plus	35%
LENGTH OF TIME RESIDENT IN AREA	
Under 5 years	21%
5-10 years	19%
11-20 years	22%
21-50 years	23%
51 years plus	5%
RESPONDENTS WILLING TO BE RECONTACTED FOR FOLLOW-UP SURVEY	
Yes	93%
No	7%
RESPONDENTS WILLING TO TAKE ACTIVE PART IN RIVER MANAGEMENT	
Yes	37%
No	63%

Table 3.1 Distance from river by frequency of visit (% of respondents)

	Riverside	Within 250m	250-500m	500m+
SUMMER				
Daily	22	37	15	23
Several times a week	28	15	18	23
Weekly	22	19	16	21
Fortnightly	11	8	11	8
Monthly	6	3	18	4
2/3 times a year	-	10	18	7
Once a year	11	5	4	9
Never	-	3	1	4
WINTER				
Daily	11	29	15	17
Several times a week	6	13	8	16
Weekly	33	8	11	13
Fortnightly	6	7	4	7
Monthly	28	16	14	13
2/3 times a year	6	11	27	13
Once a year	11	11	19	15
Never	-	5	1	7

Table 3.2 Section of river visited by area of residence: percentage of respondents

AREA OF RESIDENCE	SECTION VISITED					
	1	2*	3*	4	5*	6*
AREA 1	38	70	82	60	44	42
AREA 2	32	64	86	71	64	61
AREA 3	18	38	63	76	79	86
AREA 4	26	32	36	65	77	84
TOTAL POPULATION	24	48	66	71	70	74

* = chi-squared significant

Table 6.1 **The mean value of enjoyment of visit by area of residence**

VISITOR TYPE	ENJOYMENT PER VISIT					
	BEFORE SCHEME			AFTER SCHEME		
	Respondent able to value		Value given	Respondent able to value		Value given
	N	%		N	%	
AREA 1	25	52%	£7.49	22	45%	£9.23
AREA 2	23	82%	£4.33	23	82%	£4.81
AREA 3	61	52%	£5.54	58	49%	£7.79
AREA 4	12	39%	£8.40	12	40%	£9.53
ALL VISITORS	**121**	**54%**	**£6.00**	**115**	**51%**	**£7.65**

Table 6.2 **The mean value of enjoyment of visit by visitor type by distance from river**

VISITOR TYPE	ENJOYMENT PER VISIT					
	BEFORE SCHEME			AFTER SCHEME		
	Respondent able to value		Value given	Respondent able to value		Value given
	N	%		N	%	
RIVERSIDE PROP.	12	66%	£4.67	11	61%	£7.75
WITHIN 250 M	29	43%	£6.25	32	47%	£8.53
BETWEEN 250-500 M	44	56%	£5.15	39	50%	£6.22
OVER 500 M	36	40%	£7.27	33	37%	£8.45
ALL RESPONDENTS	**121**	**48%**	**£6.00**	**115**	**45%**	**£7.65**

Table 6.3 Comparison of characteristics between those who GAVE and DID NOT KNOW what monetary value to give for today's visit

Characteristics	People WHO GAVE a monetary value (N=121)	People DID NOT KNOW what monetary value to give (N=32)	Significance
TYPE OF VISITOR			**Pearsons**
Area 1	21%	19%	-
Area 2	19%	3%	0.03 *
Area 3	50%	62%	-
Area 4	10%	16%	-
CHARACTERISTICS			**T-test**
Sex: Female Male	54% 46%	50% 50%	- -
Age (mean)	45 years	55 years	0.002 **
Income (mean)	£16,284	£8,636	0.001 **
Age on completing education (mean)	16 years	15 years	0.05 *
FREQUENCY OF VISITS			**T-Test**
Avg visit frequency in summer	Weekly	Fortnightly	0.01 **
Avg visit frequency in winter	Fortnightly	Monthly	0.01 **
RATING (MEAN) Q.10 Ratings - 5 v.bad to + 5 v.good			**T-Test**
Mown & unmown grass	2.0	2.0	-
Amount/type of plants	0.1	-0.3	-
Amount/type of trees	1.3	0.7	-
Quality of the water	-1.6	-2.0	-
Amount of flooding	-0.3	-0.4	-
Wildlife habitat	1.9	2.1	-
Wetland & pond areas	1.3	-0.1	0.02 **
River banks	0.3	0.3	-
Shape of channel 1-3	0.8	0.5	-
Shape of channel 4-6	1.1	1.0	-
Access to the river	3.1	2.9	-
Maintenance of riverbeds	0.8	0.6	-
Cleanliness of open spaces	-1.4	-2.2	-
Nature & surface of footpaths	0.2	-0.3	-
Maintenance of footpaths	-0.1	-0.5	-

Footbridge appearance	-1.2	-0.9	-
Recreational areas & opportunities	0.2	0.8	-
Safety of the river	-1.5	-1.6	-
Effect on house prices	1.0	-0.4	0.002 **
OVERALL VISITOR RATINGS (MEAN) Q.11 -5 v.unattractive to +5 v.attractive			**T-Test**
Section 1	0.1	0.8	-
Section 2	1.9	1.3	-
Section 3	0.9	0.2	-
Section 4	2.1	1.2	-
Section 5	2.3	2.2	-
Section 6	2.1	2.2	-
ACTIVITIES (% participating)			**Pearsons**
Walking	77%	50%	0.01 **
Walking the dog	40%	20%	0.04 *
Sitting	3%	0%	-
Cycling	8%	7%	-
Fishing	1%	7%	-
Wildlife	21%	7%	-
Playing	8%	7%	-
Football/games	8%	0%	-
Access elsewhere	50%	73%	0.02 *
Other	10%	13%	-
Membership of Environmental Groups			**Pearsons**
National Trust	8%	3%	-
World Wild Fund for Nature	4%	0	-
Royal Society for the Protection of Birds	3%	3%	-
Friends of the Earth	0	0	-
Greenpeace	1%	0	-
A political party	2%	0	-
A sports club	15%	3%	-
Local residents/tenants or Community association	2%	0	-
Archaeological/historical group/society	0	0	-
Other	15%	3%	-

Table 6.4 **Comparison of characteristics between those who GAVE and COULD NOT VALUE THINGS IN MONEY TERMS for today's visit**

Characteristics	People WHO GAVE a monetary value (N=121)	People Who COULD NOT VALUE IN MONEY TERMS (N=63)	Significance
TYPE OF VISITOR			**Pearsons**
Area 1	21%	25%	-
Area 2	19%	5%	0.008 **
Area 3	50%	51%	-
Area 4	10%	19%	-
CHARACTERISTICS			**T-Test / Pearsons**
Sex: Female Male	54% 46%	38% 62%	0.04 * 0.04 *
Age (mean)	44 years	52 years	0.002 **
Income (mean)	£16,284	£12,714	0.01 **
Age on completing education (mean)	16 years	16 years	-
FREQUENCY OF VISITS			**T-test**
Avg visit frequency in summer	Weekly	Weekly	0.2
Avg visit frequency in winter	Fortnightly	Fortnightly	0.2
RATING (MEAN) Q.10 Ratings -5 v.bad to +5 v.good			**T-test**
Mown & unmown grass	2.0	3.3	0.002 **
Amount/type of plants	0.1	0.1	-
Amount/type of trees	1.3	1.2	-
Quality of the water	-1.6	-0.9	-
Amount of flooding	-0.3	0.3	-
Wildlife habitat	1.9	1.8	-
Wetland & pond areas	1.3	1.0	-
River banks	0.3	-0.4	-
Shape of channel 1-3	0.8	1.3	-
Shape of channel 4-6	1.1	1.6	-
Access to the river	3.1	3.9	0.004 **
Maintenance of riverbeds	0.8	1.1	-
Cleanliness of open spaces	-1.4	-0.2	0.01 **
Nature & surface of footpaths	0.2	-0.5	-
Maintenance of footpaths	-0.1	-0.7	-
Footbridge appearance	-1.2	-1.1	-

Recreational areas & opportunities	0.2	0.9	-
Safety of the river	-1.5	-1.0	-
Effect on house prices	1.0	0.9	-
OVERALL VISITOR RATINGS (MEAN) Q.11 -5 v.bad to +5 v.good			**T-Test**
Section 1	0.1	1.2	-
Section 2	1.9	2.0	-
Section 3	0.9	0.8	-
Section 4	2.1	1.3	-
Section 5	2.3	2.4	-
Section 6	2.1	2.0	-
ACTIVITIES (% participating)			**Pearsons**
Walking	77%	59%	0.01 **
Walking the dog	40%	40%	-
Sitting	3%	5%	-
Cycling	8%	8%	-
Fishing	1%	0%	-
Wildlife	21%	16%	-
Playing	8%	3%	-
Football/games	8%	8%	-
Access elsewhere	50%	40%	-
Other	10%	5%	-
Membership of Environmental Groups			**Pearsons**
National Trust	8%	0%	0.02 *
World Wide Fund for Nature	4%	2%	-
RSPB	3%	2%	-
Friends of the Earth	0%	2%	-
Greenpeace	1%	3%	-
A political party	2%	2%	-
A sports club	15%	11%	-
Local residents/tenants/ community association	2%	2%	-
Archaeological/historical group	0%	0%	-
Other	15%	8%	-

Table 6.5 Subjective enjoyment obtained by visitors if the river were restored

TYPE OF VISITOR	AREA 1 (N=58)		AREA 2 (N=30)		AREA 3 (N=124)		AREA 4 (N=39)	
	%	Freq	%	Freq	%	Freq	%	Freq
If river were restored.								
Less	3%	5	3%	1	9%	11	5	2
More	45%	26	40%	12	36%	45	41	16
Same	43%	2	50%	15	50%	62	44	17
Don't know	9%	25	7%	2	5%	6	10	4

Table 6.6 Average gain per visit if the river were improved

VISITOR TYPE	AVERAGE GAIN PER VISIT	LOG MEAN	U LOG STD DEV
AREA 1 (N=21)	£2.56	0.36	0.41
AREA 2 (N=22)	£0.73	0.29	0.27
AREA 3 (N=57)	£2.27	0.38	0.35
AREA 4 (N=12)	£1.13	0.21	0.31
ALL VISITORS (N=112)	**£1.90**	**0.34**	**0.35**

Table 7.1 **Willingness to pay for restoration programme: percentage of respondents**

PROGRAMME	WITH DON'T KNOWS (Valid cases 228)			
	Yes (1)	Maybe (2)	No (3)	Don't know (-9)
National	39	18	34	10
Skerne	45	17	30	8

(n) = value given by respondent

PROGRAMME	WITHOUT DON'T KNOWS (Valid cases 232)		
	Yes (1)	Maybe (2)	No (3)
National	43	19	37
Skerne	49	19	33

(n) = value given by respondents

Table 7.2 **Amount willing to pay (£) for a small increase in local and national taxes per annum for the River Skerne programme**

Mean	Mode	Median	Std dev
22.45	10.00	10.00	30.67
Log Mean	**Mode**	**Median**	**Std dev**
1.02	1.00	1.00	0.60

Table 7.3 **Factors influencing decision on willingness to pay (WTP) for programmes: Mean ratings**

FACTORS	NATIONAL PROGRAMME		SKERNE PROGRAMME	
	WTP	NOT WTP	WTP	NOT WTP
Enjoyment from visiting river *	4.17	2.93	4.13	2.85
The environmental benefit of the change *	4.14	3.10	3.96	3.29
What my household could afford to pay	3.88	3.62	3.85	3.69
My fair share of cost	3.74	3.63	3.62	3.65
What it is fair for my household to pay	3.64	3.49	3.58	3.48
The amount I already pay in local and national taxes	3.61	4.08	3.50	4.35
Other things I would like to spend money on *	3.33	3.86	3.22	4.05

* = significant on T-tests for both national and Skerne programmes.

Rating scale = 0 (not important) to 5 (very important)

Table 7.4 **Willingness to pay for programmes by visitors to river: Percentage of respondents**

OPTION	NATIONAL PROGRAMME				SKERNE PROGRAMME*			
	Yes	Maybe	No	Don't know	Yes	Maybe	No	Don't know
Visit river	43	17	31	9	49	16	27	8
Don't visit	21	18	47	13	21	21	47	11

* = Chi-squared significant

APPENDIX 1

MIDDLESEX UNIVERSITY
CONFIDENTIAL

THE RIVER SKERNE PUBLIC PERCEPTION SURVEY
STAGE II

FOR OFFICE USE ONLY

Questionnaire number .....

Location DARLINGTON

Interviewer .....

Interview number .....

Date ..../..../1995

Day .....

Street .....

Time interview started (24 hour clock) .....

Time interview finished (24 hour clock) .....

Length of interview (minutes) .....

Approximate distance of house from river:

a)	Riverside property	1
b)	Within 250 metres/yards	2
c)	Between 250 and 500 metres/yards	3
d)	Over 500 metres/yards	4

House classification

Dwelling type:-		Age of dwelling:-	
Detached house	1	Pre 1918	1
Semi-detached house	2	1919 - 1938	2
Terraced house	3	1939 - 1965	3
Bungalow	4	1966 - 1977	4
Flat	5	Post 1977	5

RIVER SKERNE PUBLIC PERCEPTION SURVEY - STAGE II

Middlesex University is carrying out a survey to find out people's views on a project for the River Skerne in Darlington. The survey is being carried out for the River Restoration Project which was set up by a group of professionals with skills in various fields including conservation, engineering and biology. The project aims, where possible, to look at ways in which rivers can be changed. The Project is working in partnership with the National Rivers Authority, Darlington Borough Council, the Countryside Commission, English Nature and Northumbrian Water on the project. The Department of Agriculture for Northern Ireland is also an associate of the project.

Middlesex University is responsible for designing the survey and for analysing and reporting the results, which will be published in statistical and unidentifiable form only. The survey is completely confidential and the names and views of individuals participating will not be revealed to anyone outside the Centre.

It is hoped that results from this study will help influence the design and development of similar future projects, both locally, nationally and internationally, as well as being contributing to Britain's national policy in this area.

SECTION 1 RIVER RELATED QUESTIONS

I would like to begin by asking you some questions about the river in this area.

[Q.1] Can you tell me whether you have visited the River Skerne in Darlington between Skerne Bridge and Haughton Bridge in the last 12 months?

YES	1
NO	2
DON'T KNOW	-9

IF NO GO TO Q.2
IF YES GO TO Q.3

[Q.2] If no, have you ever visited the river?

YES	1
NO	2
DON'T KNOW	-9

IF NO GO TO Q.7
IF YES GO TO Q.3

[Q.3] How often do you visit the river in summer, that is between April and September, and in the winter between October and March?
[SHOW CARD 1] CIRCLE ONE ANSWER

SUMMER:	Daily	1
	Several times a week	2
	Weekly	3
	Fortnightly	4
	Monthly	5
	2/3 times a year	6
	Once a year	7
WINTER:	Daily	1
	Several times a week	2
	Weekly	3
	Fortnightly	4
	Monthly	5
	2/3 times a year	6
	Once a year	7

[Q.4] Which section(s) of the river do you visit?
[SHOW MAP A]

	YES	NO	DON'T KNOW
Section 1	1	2	-9
Section 2	1	2	-9
Section 3	1	2	-9
Section 4	1	2	-9
Section 5	1	2	-9
Section 6	1	2	-9

[Q.5] For what purpose do you visit the river and nearby open space?
[SHOW CARD 2]
[PLEASE CIRCLE FOR EACH ACTIVITY]

		YES	NO
a)	Walking	1	2
b)	Walking the dog	1	2
c)	Sitting	1	2
d)	Cycling	1	2
e)	Fishing	1	2
f)	Wildlife	1	2
g)	School visit	1	2
h)	Playing	1	2
i)	Football/games	1	2
j)	Access to elsewhere	1	2
k)	Other (please specify)	1	2

.....

.....

.....

[Q.6] How much time do you usually spend when visiting the river?
[SHOW CARD 3 - CIRCLE ONE ANSWER ONLY]

0 - 5 minutes	1
6 - 15 minutes	2
16 - 30 minutes	3
31 - 60 minutes	4
1 - 4 hours	5
Over 4 hours	6

[Q.7] What do you like about the river?
[PROBE AND RECORD VERBATIM - INCLUDE NON-USERS TOO]

.....

.....

.....

[Q.8] What do you dislike about the river?
[PROBE AND RECORD VERBATIM - INCLUDE NON-USERS TOO]

.....

.....

.....

[FOR RESPONDENTS WHO DO NOT VISIT THE RIVER ONLY - PROBE AND RECORD VERBATIM]

[Q.9] If you do not visit the river, can you give me the reasons why?

.....

.....

SECTION 2 QUESTIONS ON ASPECTS OF THE RIVER AND SURROUNDING OPEN SPACE

[Q.10] I would like to ask your views on certain aspects of the river and surrounding open space as it is at present between Skerne Bridge and Haughton Bridge.
RATE ON A SCALE OF -5 TO +5
[SHOW CARD 4 - NOTE ANY COMMENTS AND PROBE]

For each of the following please rate on a scale of: -5 = very bad, +5 = very good.

Very bad					No opinion					Very good	Don't know
-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	-9

a) The mown and unmown grass in the area

....

.....

b) The amount and type of plants in the river and on the river banks

.....

.....

c) The amount and type of trees on or near the river

.....

.....

.....

d) The general quality of the water in the river

.....

.....

.....

e) The amount of flooding to property, roads, footpaths and open land in the area

.....

.....

.....

f) The river and surrounding area as a habitat for wildlife ie ducks, fish etc.

.....

.....

.....

g) The wetlands and pond areas, including the Rockwell Nature Area

.....

.....

.....

h) The concrete river banks/retaining walls

.....

.....

.....

i) The shape of the river channel between Skerne Bridge and Five Arches Bridge eg: uniformity, width, depth etc.

....

.....

j) The shape of the river channel between Five Arches Bridge and Hutton Avenue Bridge eg: uniformity, width, depth etc.

....

.....

k) Access to the river

....

.....

l) Maintenance of the riverbed and banks

....

.....

m) Cleanliness of open space and river banks ie litter, dog fouling etc.

....

.....

n) The nature and surface of the footpaths

....

.....

o) Maintenance of the footpaths

.....

.....

p) The Hutton Avenue footbridge eg appearance/maintenance

.....

.....

.....

q) Recreational areas and opportunities

.....

.....

.....

r) Safety aspects of the river area

.....

.....

.....

s) The effect of the river on house prices in area

.....

.....

.....

[Q.11] How attractive do you think the **different sections** of the river are between Skerne Bridge and Haughton Bridge?

[SHOW SECTIONS ON MAP - RATE ON A SCALE OF -5 TO +5 SHOW CARD 5]

Very unattractive										Very attractive	Don't know
-5	-4	-3	-2	-1	0	1	2	3	4	5	-9

Section 1 .....

Section 2 .....

Section 3 .....

Section 4 .....

Section 5 .....

Section 6 .....

[Q.12] How attractive **overall** is the section of river between Skerne Bridge and Hutton Avenue Bridge in its current state?
[SHOW CARD 6 - PLEASE TICK ONE BOX]

PLEASE RATE ON A SCALE OF:
-5 = Very unattractive, to +5 = Very attractive

Very unattractive										Very attractive
-5	-4	-3	-2	-1	0	1	2	3	4	5

SECTION 3 ENJOYMENT PER VISIT QUESTIONS

RESPONDENTS WHO VISIT RIVER ONLY - IF DON'T VISIT GO TO SECTION 4

[Q.13] READ OUT

We are trying to find out how much value you, **as an individual**, put on your enjoyment of a visit to the river in its current condition. **[MAP A]**
I MEAN VALUE IN £ AND PENCE.

Now, this is an unusual question to ask so let me explain it to you in this way:

Think of a visit or activity you have done in the past which gave you the same amount of enjoyment as you would get from an average visit to the river. Here is a list of possibilities. **[SHOW CARD 7]**

(a) What visit or activities give you about the same **enjoyment** as a visit to the river?

[PROBE AND WRITE IN RESPONSE]

.....

.....

.....

Now think about how much that visit (or other activities) cost you. Remember that the cost of a visit may include petrol and parking costs or bus or train fares as well as admission charges and any other costs.

You can use the costs of that visit (or other activities) as a guide to the value of your enjoyment of a visit to the river.

(b) So, now, what value do you put on your individual enjoyment of **an average visit to the river?**

Value of visit £ .....:..... pence

Cannot value these things in money terms	=	-7
Other (please specify)	=	-8
Don't know	=	-9

SHOW RESTORATION MAP

I'm now going to show you a plan proposed to change the river here in Darlington.

This is the proposed scheme. It would involve creating bends in the rivercourse in Sections 5 and 6 (see map) which may involve the loss of some of the open space available for recreational activities such as football etc. Some of the concrete retaining walls will be given a softer appearance with extra planting including trailing plants. The new bends in the river channel in section 5 would make the river less uniform, with variations in width and depth and river bed materials. The scheme would create wetland areas and pond areas joined to the river to attract new wildlife and would involve new landscaping with trees, plants and flowers. It is planned that the scheme will lead to an improvement in the quality of the water in the river. Moreover, Darlington Borough Council are considering the possibility of an additional new footbridge and footpaths, which I will come on to later. Although the scheme would provide the same **or an improved** level of flood protection to nearby properties as at present, some of the open land by the river (the original floodplains) would be liable to natural flooding as it is at present.

[Q.14] Can I ask you what you like about this scheme?
[RECORD VERBATIM AND PROBE]

.....

.....

.....

[Q.15] Can I ask you what you dislike about this scheme?
[RECORD VERBATIM AND PROBE]

.....

.....

.....

[Q.16] Would you visit the river more often or less often than you do now if the above changes were to be carried out or would it make no difference?

More often	1
Less often	2
Make no difference	3
Don't know	-9

[Q.17] If you were making an average visit to the river in this drawing, would you get more, less, or the same amount of enjoyment from the visit compared to your enjoyment of visits to the river in its current state?
[SHOW CARD 8]

PLEASE TICK BOX

much less enjoyment			the same enjoyment		much more enjoyment	
-3	-2	-1	0	+1	+2	+3
☐	☐	☐	☐	☐	☐	☐

[Q.18] So, now, what value would you put on your individual enjoyment of a **single visit** to the river in **RESTORATION MAP**?

Value of a visit £ .....:..... pence

Cannot value these things in money terms = -7
Other (please specify) = -8

.....

Don't know = -9

[Q.19] From what you have been told about the proposed scheme for the river, are you in favour of it being carried out? How strongly are you in favour or against its being carried out?

PLEASE EVALUATE AND RATE ON A SCALE OF:
[SHOW CARD 9]

Strongly against			No opinion		Strongly in favour	
-3	-2	-1	0	+1	+2	+3

Restoration Option .....

NOW GO TO SECTION 5

SECTION 4 FOR RESPONDENTS WHO HAVE NOT VISITED RIVER IN LAST 12 MONTHS

SHOW RESTORATION MAP

I'm now going to show you a plan proposed to change the river here in Darlington.

This is the proposed scheme. It would involve creating bends in the rivercourse in Sections 5 and 6 (see map) which may involve the loss of some of the open space available for recreational activities such as football etc. Some of the concrete retaining walls will be given a softer appearance with extra planting including trailing plants. The new bends in the river channel in section 5 would make the river less uniform, with variations in width and depth and river bed materials. The scheme would create wetland areas and pond areas joined to the river to attract new wildlife and would involve new landscaping with trees, plants and flowers. It is planned that the scheme will lead to an improvement in the quality of the water in the river. Moreover, Darlington Borough Council are considering the possibility of an additional new footbridge and footpaths, which I will come on to later. Although the scheme would provide the same **or an improved** level of flood protection to nearby properties as at present, some of the open land by the river (the original floodplains) would be liable to natural flooding as it is at present.

[Q.20] Can I ask you what you like about this scheme?
[RECORD VERBATIM AND PROBE]

.....

.....

.....

[Q.21] Can I ask you what you dislike about this scheme?
[RECORD VERBATIM AND PROBE]

.....

.....

.....

[Q.22] Do you think you would visit the river if the above changes were to be carried out?

YES	1
NO	2
DON'T KNOW	-9

[Q.23] READ OUT

We would like to find out how much value you, **as an individual**, would put on your enjoyment of a visit to the river in this diagram. **[RESTORATION MAP]**
I MEAN VALUE IN £ AND PENCE.

Now, this is an unusual question to ask so let me explain it to you in this way:

Think of a visit or activity you have done in the past which gave you the same amount of enjoyment as you would get from an average visit to the river. Here is a list of possibilities. **[SHOW CARD 7]**

(a) What visit or activities give you about the same **enjoyment** as a visit to the river?

PROBE AND WRITE IN RESPONSE

.....

.....

.....

Now think about how much that visit (or other activities) cost you. Remember that the cost of a visit may include petrol and parking costs or bus or train fares as well as admission charges and any other costs.

You can use the costs of that visit (or other activities) as a guide to the value of your enjoyment of a visit to the river.

(b) So, now, what value would you put on your individual enjoyment of **an average visit to the river in this diagram?**

Value of visit £ .....:....

Cannot value these things in money terms	=	-7
Other (please specify)	=	-8
Don't know	=	-9

[Q.24] From what you have been told about the proposed scheme for the river, are you in favour of it being carried out? How strongly are you in favour or against its being carried out?

PLEASE EVALUATE AND RATE ON A SCALE OF:
[SHOW CARD 9]

Strongly against			No opinion			Strongly in favour
-3	-2	-1	0	+1	+2	+3

Restoration .....

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SECTION 5 WILLINGESS TO PAY QUESTIONS - ALL RESPONDENTS

READ OUT

There are many miles of river in England and Wales which like the River Skerne in Darlington have been changed, through being straightened or put in concrete channels as part of flood defence schemes, or which have been altered in other ways. Although money is being spent to tackle particular problems on rivers, such as pollution and low flows, currently very little money is spent by national and local authorities on schemes generally to return rivers to a more natural condition.

We want you to think about whether you would be prepared to pay additional national and local taxes to fund schemes to return out rivers to a more natural condition. This may be a difficult question if you haven't thought about it in this way before. We hope these comments may help you decide.

In current circumstances, you may not be able to afford to pay any more in national and local taxes to fund river restoration. Also there may be other environmental problems such as air pollution or other areas of public expenditure (such as education, law and order, or health care) upon which you would prefer any extra money to be spent. Or you may prefer all public expenditure to be reduced so that national and local taxes can be reduced.

[Q.25] We would like to find out if you would be prepared to pay, on behalf of your household, a small increase in national and local taxes each year to return rivers to a more natural condition?

Would you be prepared to pay for:

	YES	MAYBE	NO	DON'T KNOW
a) a national programme which would include the River Skerne	1	2	3	-9
b) the scheme for the River Skerne only, funded locally, which I showed you in the drawing earlier	1	2	3	-9

IF YES/MAYBE TO A) national programme, AND B) Skerne scheme GO TO Q.26

IF NO/DON'T KNOW TO A) AND B) GO TO Q.28

IF YES/MAYBE TO A) AND NO/DON'T KNOW TO B) GO TO Q.28

IF NO/DON'T KNOW TO A) AND YES/MAYBE TO B) GO TO Q.26

[Q.26] (If a national programme could not be agreed upon), how much would you be willing to pay for the Skerne scheme?

Would you definitely be prepared to pay an extra **[READ OUT AMOUNT]** per year?

[ALTERNATE THE ORDER OF STARTING "C" AND "J" MARK ALTERNATIVE START POINTS ON ALTERNATIVE QUESTIONNAIRES IN ADVANCE. SHOW CARD 10]

	AMOUNT £/YEAR	0 = DEFINITELY NO 2 = DEFINITELY YES 1 = NOT SURE	STARTING POINT
A	10p	.....	
B	25p	.....	
C	50p	.....	.....
D	£1	.....	
E	£2	.....	
F	£4	.....	
G	£8	.....	
H	£16	.....	
I	£32	.....	
J	£64	.....	.....
K	£128	.....	
L	£256	.....	

[Q.27] Now that you have had a chance to think about this could you tell me exactly how much you would be prepared to pay each year in national and local taxes for the River Skerne scheme?

£ | | | | | |

[Q.28] In deciding whether or not you could and wanted to spend anything to change the Skerne, how important were each of the following as factors in your decision:
RATE ON A SCALE FROM 0 TO 5 FOR EACH ONE
[SHOW CARD 11]

Least important					Most important
0	1	2	3	4	5

a) What my household could afford to pay .....

b) The amount I already have to pay in local and national taxes .....

c) The enjoyment I will get from visiting the river .....

d) What it is fair for my household to pay .....

e) The other things I would like to spend money on .....

f) The environmental benefit of the change .....

g) My fair share of the cost .....

We wanted to find out how worthwhile you think the proposed scheme will be and how much you would be willing to contribute to such a scheme. However, a major part of the funding for the project has been raised by grants from the European Commission LIFE fund, with some additional funding from the partners: the National Rivers Authority, English Nature, the Government's Advisors on Nature Conservation, the Countryside Commission and Darlington Borough Council. **So the people of Darlington will not be required to pay anything extra for the scheme over and above what they are currently paying in Council Tax.**

SECTION 6 BRIDGES AND FOOTPATHS

The River Project and Darlington Borough Council are also considering providing an additional footbridge and footpaths along the river here.

[Q.29] Can I ask you, do you use the current Hutton Avenue footbridge over the river?
[SHOW MAP OF LOCATION]

YES	1
NO	2
DON'T KNOW	-9

IF YES GO TO Q.30
IF NO GO TO Q.31

[Q.30] If YES, how often do you use the bridge?
[SHOW CARD 12]

Several times a day	1
At least once a day	2
Several times a week	3
Weekly	4
Several times a month	5
Occassionally	6

[Q.31] Do you use the footpaths along the river?
[SHOW MAP OF LOCATION]

YES	1
NO	2
DON'T KNOW	-9

IF YES GO TO Q.32
IF NO GO TO Q.33

[Q.32] How often do you use the footpaths?
[SHOW CARD 13]

Several times a day	1
At least once a day	2
Several times a week	3
Weekly	4
Several times a month	5
Occassionally	6

[Q.33] I would like to ask your views on the new footbridge being considered and its location. Various locations have been proposed for the new bridge.
[SHOW MAP AND INDICATE LOCATIONS AND OPTIONS
SHOW CARD 14]

Can you tell me if you are:

		YES	NO	DONT KNOW
a)	In favour of a new bridge at location A	1	2	-9
b)	In favour of a new bridge at location B	1	2	-9

c)	In favour of a new bridge at location C	1	2	-9
d)	In favour of a new bridge at location D	1	2	-9
e)	In favour of a new bridge at any of the locations	1	2	-9
f)	In favour of a new bridge at a different location	1	2	-9
g)	Not in favour of a new bridge at any location	1	2	-9
h)	Would prefer to have existing bridge refurbished instead of an additional bridge	1	2	-9
i)	Would like to have a new bridge as well as having the existing bridge refurbished	1	2	-9

[Q.34] Can you tell me why you are in favour or against a new footbridge?
[PROBE AND QUOTE VERBATIM]

.....

.....

[Q.35] If you are in favour of a new footbridge but in a different location to the ones proposed can you show me on the map where you would prefer the footbridge to be and why.
[SHOW MAP AND MARK LOCATION - PROBE AND QUOTE VERBATIM]

.....

.....

.....

[Q.36] Now about the proposed new footpaths. **[SHOW MAP AND INDICATE NEW PATHS]** Can you tell me if you are in favour of the proposed new footpaths? **[SHOW CARD 15]**

Are you:

In favour of new footpaths in the proposed locations	1
In favour of new footpaths in different locations	2
Not in favour of new footpaths at all	3
Don't know	-9

[Q.37] For what reasons are you in favour or not in favour of the new footpaths? **[PROBE AND QUOTE VERBATIM]**

.....

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[Q.38] If you are in favour of new footpaths but in different locations can you tell me where you would prefer them to be and why. **[PROBE AND QUOTE VERBATIM - MARK ON MAP]**

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[Q.39] What type of surface would you prefer the new footpaths to have: **[SHOW CARD 16]**

Natural grass/earth paths	1
Gravel paths	2
Paved paths/tarmac	3
A mixture	4
No preference	5
Don't know	-9

SECTION 7 AFTER CHANGING THE RIVER

[Q.40] Do you think that a scheme to change the river would lead to it being more or less safe for children and other users than at present or would the changes make no difference to safety?
[PLEASE CIRCLE - SHOW CARD 17]

More safe	1 **GO TO Q.60**
Less safe	2 **GO TO Q.60**
Make no difference	3 **GO TO Q.61**
Don't know	-9 **GO TO Q.61**

[Q.41] Do you think that changing the river would result in increased or reduced recreation opportunities?
[SHOW CARD 18]

Increased opportunities	1
Reduced opportunities	2
Would remain the same	3
Don't know	-9

[Q.42] Do you think that changing the river will result in:
[SHOW CARD 19]

Loss of wildlife and wildlife habitat	1
Increase of wildlife and wildlife habitat	2
No change in wildlife and wildlife habitat	3
Don't know	-9

[Q.43] What gains or losses do you then think could result from changing the river?

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.....

.....

SECTION 8 MEMBERSHIP OF ENVIRONMENTAL GROUPS

[Q.44] Would you tell me whether you are a member of, or regularly subscribe to, any of the following organisations:
[SHOW CARD 20
PLEASE CIRCLE FOR EACH ONE]

	YES	NO
National Trust	1	2
World Wide Fund for Nature	1	2
Royal Society for the Protection of Birds	1	2
Friends of the Earth	1	2
Greenpeace	1	2
A political party	1	2
A sports club	1	2
Local residents/tenants or Community Assoc	1	2
Archaeological/historical group/society	1	2
Other (please specify)	1	2

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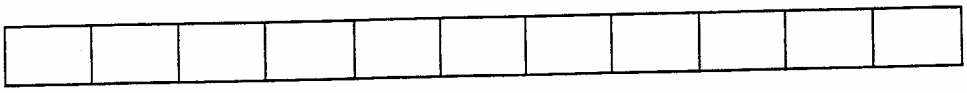
SECTION 9 PUBLIC CONSULTATION

[Q.45] Finally, I would like to ask you a few questions on public consultation. Can I ask you how important you feel it is to be consulted over, and involved with, projects such as this one?

[PLEASE RATE ON A SCALE OF 0 - 10, WITH 0 REPRESENTING NOT AT ALL IMPORTANT AND 10 REPRESENTING VERY IMPORTANT]
[SHOW CARD 21 - PLEASE TICK BOX]

Not at all important — Very important

0 1 2 3 4 5 6 7 8 9 10



[Q.46] What form do you think that consultation should take?
[SHOW CARD 22]
[PLEASE CIRCLE FOR EACH ONE]

		YES	NO	DON'T KNOW
a)	public meetings	1	2	-9
b)	letters or leaflets	1	2	-9
c)	newsletter	1	2	-9
d)	personal visits	1	2	-9
e)	notice in newspapers	1	2	-9
f)	local radio/TV	1	2	-9
g)	an exhibition	1	2	-9
h)	posters	1	2	-9
i)	local referendum	1	2	-9
j)	other (please specify)	1	2	

.....

[Q.47] Out of these which ONE form of consultation would you prefer?
[SHOW CARD 22]
[PLEASE CIRCLE ONE ANSWER ONLY]

a)	public meetings	1
b)	letters or leaflets	2
c)	newsletter	3
d)	personal visits	4
e)	noice in newspapers	5
f)	local radio/TV	6
g)	an exhibition	7
h)	posters	8
i)	local referendum	9
j)	other (please specify)	10
	.....	
k)	don't know	-9

SECTION 10 STANDARD QUESTIONS

The following questions are standard for questionnaires and are only for our own classification purposes. Your answers are entirely confidential.

[Q.48] Sex

male	1
female	2

[Q.49] Could you tell me what year you were born? 19....

[Q.50] Can you tell me at what age you completed your full-time education?

a) at age .....

b) still in full-time education (Circle) 1

[Q.51] Can you tell me how many people there are in your household? .....

[Q.52] Does your household include:
[SHOW CARD 23]

		YES	NO
a)	children aged 10 and under	1	2
b)	children aged 11 to 17	1	2
c)	adults aged 18 to 64	1	2
d)	adults aged 65 and over	1	2
e)	adults aged 65 and over only	1	2

[Q.53] How long have you lived in this area? .....
[ROUND UP TO NEAREST YEAR]

[Q.54] Do you:

own your own house/flat?	1
rent from the local council	2
other (private landlord/live with family etc.)	3

[Q.55] Which of the following letters on this card indicates your household's annual income from all sources before deductions?
[SHOW CARD 24 AND CIRCLE THAT WHICH APPLIES]

m)	under £5,000	1
f)	£5,000 - £10,000	2
l)	£10,000 - £15,000	3
a)	£15,001 - £20,000	4
k)	£20,001 - £25,000	5
s)	£25,000 and over	6
	Refused	7
	Don't know	-9

[Q.56] We will be doing a follow-up survey once the scheme has been completed and we would very much like to know your views and opinions. May we contact you again in the future?

Yes, you may contact me in the future	1
No, I do not wish to be contacted again	2

[Q.57] Would you be interested in taking a more active part in decisions taken about the river and in the management of the site?

Yes, would be interested	1
No, would not be interested	2

This is the end of the questionnaire and we would like to thank you for giving so much of your time. It would be helpful if you could give me your name and telephone number as Middlesex University makes random telephone checks to ensure that interviews have been carried out satisfactorily. These details will be on a detachable sheet and the confidentiality of your answers is assured. Please do not feel that you have to give these details if you do not wish to, but it would help us very much if you do.

RESPONDENT'S NAME

.....

RESPONDENT'S ADDRESS

.....

.....

RESPONDENT'S TELEPHONE NUMBER .....

INTERVIEW NUMBER .....

INTERVIEWER'S NAME

.....

INTERVIEWER'S SIGNATURE

.....

ADDITIONAL COMMENTS

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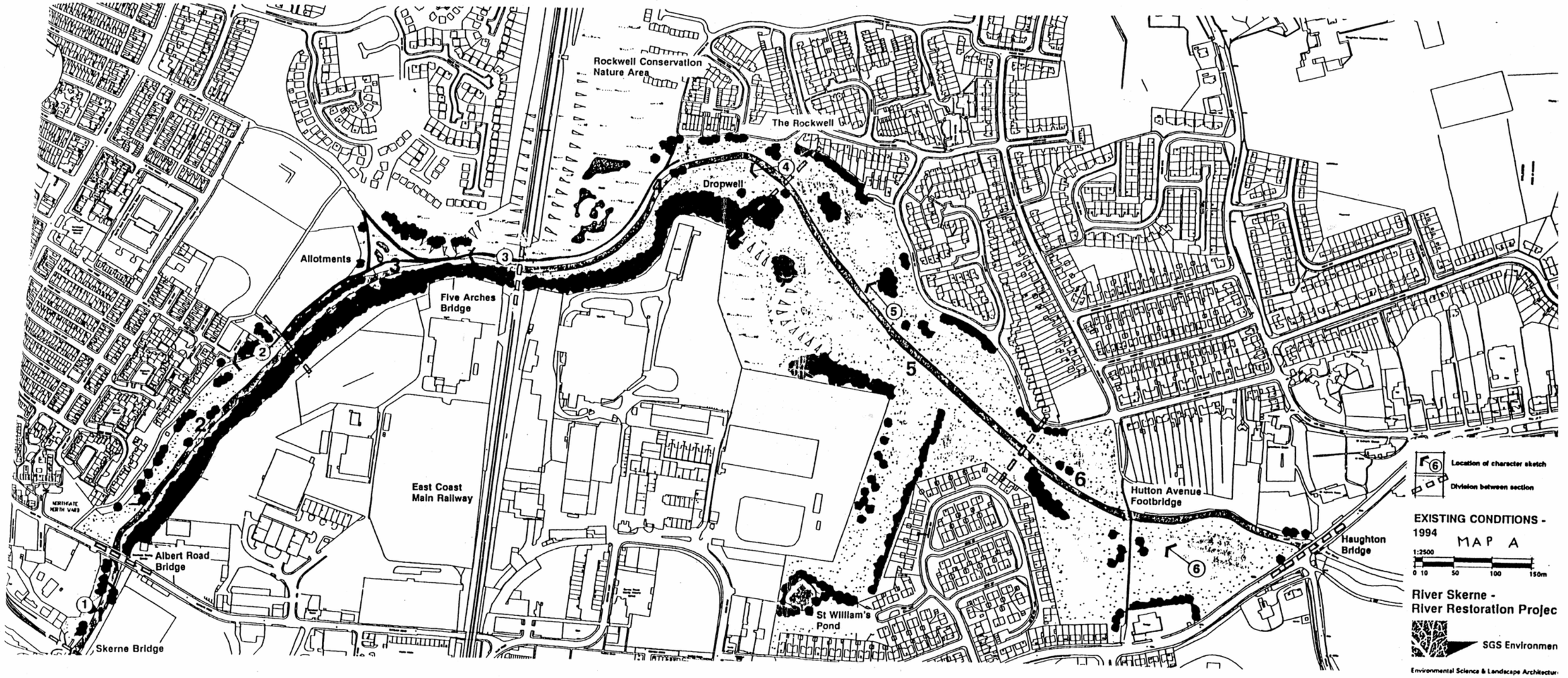
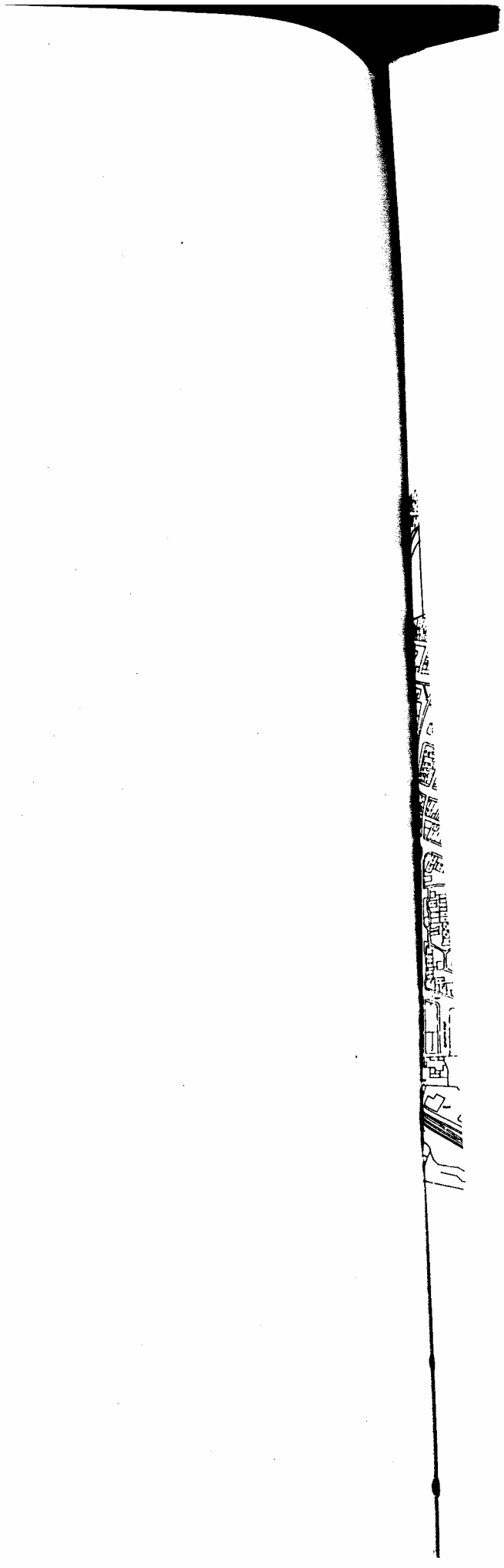
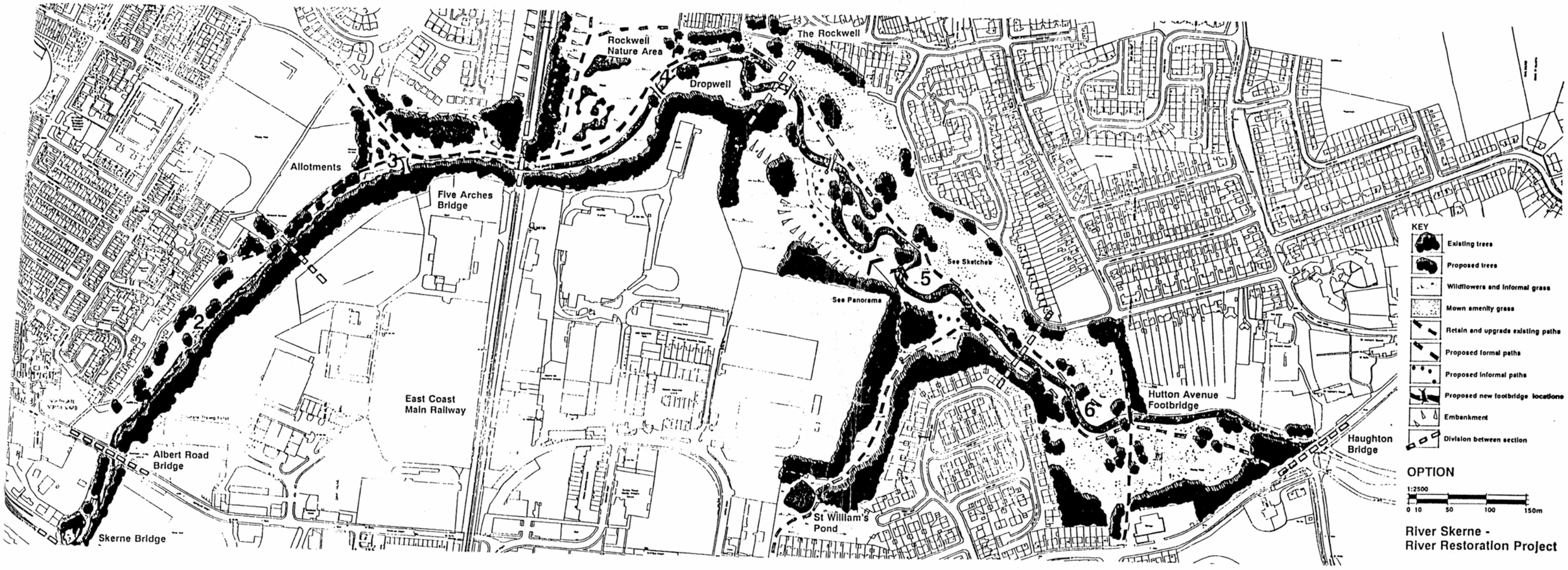
FOR OFFICIAL USE ONLY
QUESTIONNAIRE NUMBER: .....

APPENDIX 2


Rockwell Conservation Nature Area
The Rockwell
Dropwell
Allotments
Five Arches Bridge
East Coast Main Railway
Albert Road Bridge
Skerne Bridge
St William's Pond
Hutton Avenue Footbridge
Haughton Bridge
1
2
3
4
5
6
Location of character sketch
Division between section
EXISTING CONDITIONS - 1994
MAP A
1:2500
0 10 50 100 150m
River Skerne - River Restoration Projec
SGS Environmen
Environmental Science & Landscape Architectur

APPENDIX 3





River Skerne -
River Restoration Project

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