The Economic Impact of the Restoration of the Kennet and Avon Canal

A Final Report to British Waterways

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1.0 INTRODUCTION

ECOTEC Research and Consulting, in association with **Grimley International Property Advisers**, were appointed in November 2002 by British Waterways to undertake a study of the economic impacts of the restoration of the Kennet and Avon Canal. This document is a **Final Report** of the study findings.

1.1 The Kennet and Avon Canal and its Restoration

1.1.1 The History of the Kennet and Avon Canal

The Kennet and Avon Canal runs for 87 miles and connects the River Avon at Bristol with the River Thames at Reading. It is, therefore, a waterway of strategic importance connecting London with Bristol and forming part of a group of canals in the South West which are a focus for restoration (the Wiltshire and Berkshire, the Cotswolds and the Herefordshire and Gloucestershire).

The Kennet and Avon Canal opened in 1810 though it was originally three separate navigations:

- The Kennet Navigation linking Reading and Newbury which opened in 1723;
- The River Avon which linked Bristol and Bath and opened in 1727; and,
- The canal which linked these two sections which opened in 1810.

As with other waterways, usage of the canal declined in the face of competition from other forms of transportation and the Kennet and Avon Canal was eventually closed by the British Transport Commission in 1955. Subsequently, the Kennet and Avon Canal Association was set up to campaign for its re-opening and, by the 1960s, a number of small restoration projects were being undertaken by volunteers, now working as the Kennet and Avon Canal Trust. Over the next 30 years around £9.5 million was invested by a partnership comprising British Waterways, the Kennet and Avon Canal Trust, the Association of Canal Enterprises and the riparian local authorities along the waterway. Key capital projects included:

- A major lock rebuilding programme during the 1980s
- Major works to reline the Dundas Aqueduct and remove landslips in 1984
- Relining works and bridge improvements
- The restoration of the Caen Hill flight of locks

The culmination of these projects was the official re-opening of the Kennet and Avon Canal to through navigation in 1990 by HM The Queen. However, the waterway still suffered from significant and long-standing structural problems of water leakage and embankment stability which, unless they were addressed, would have threatened future usage of the canal.

1.1.2 The 1997 Restoration Programme

In 1994, Coopers and Lybrand were commissioned by British Waterways, the Kennet and Avon Canal Trust and riparian local authorities to undertake an economic assessment of the Kennet and Avon Canal. Their findings were published in 1995 and formed part of the justification for a successful £25 million bid made in 1996 to the Heritage Lottery Fund (HLF) for funding to complete the restoration of the canal. Match funding totalling an additional £4.24 million was provided by British Waterways, the Kennet and Avon Canal Trust and riparian local authorities. Work began in 1997 and involved:

- Ensuring an adequate water supply to sections of the canal though Devizes, including the Caen Hill Lock Flight
- Stabilising the embankment within the Bath Valley
- Improved access and interpretation plus nature conservation, heritage and landscaping projects throughout the length of the waterway

Work was completed in December 2002 and the Kennet and Avon Canal will be officially re-opened in Summer 2003.

It is clear that the real importance of the post-1997 restoration programme has been to consolidate earlier work on the canal carried out between 1960-90. Without such efforts, navigation along the canal could not be guaranteed and, in all reality, sections of the waterway would have reverted to a semi-derelict state. In part this problem results from the legal status of the canal. Following the 1968 Transport Act, the Kennet and Avon Canal was divided into two sections: 70 per cent as a ‘remainder’ waterway and 30 per cent as a ‘cruising’ waterway. Remainder status only requires British Waterways to manage the canal in the interest of public health and the preservation of amenity and safety; in practical terms there was no obligation for the canal to be kept open for navigation.

By 1990 this legal position was clearly outdated as ongoing restoration and maintenance efforts had meant that the canal was actually operating at 100 per cent cruising status. Moreover, the waterway supported a significant tourism and leisure economy which provided employment opportunities for local people. One of the justifications for the award of the HLF grant was, therefore, the protection and safeguarding of these jobs. In addition it was widely anticipated that the restoration programme, by raising the profile of the canal and resulting in increased usage, would have an impact on the local property market by making canal-side sites more desirable for both residential and commercial property development. Such investment would create further employment opportunities.

1.2 Aims and Objectives of the Study

As noted in the original Project Brief issued by British Waterways, the aim of this piece of research was to assess the economic impact of the restoration of the Kennet and Avon Canal (for the purposes of this study only the Reading to Bath stretch of the canal has been considered). Since the canal was re-opened to navigation in 1990 there has been plenty of time for economic benefits to become apparent. However, the impact of the latest round of canal restoration is more difficult to isolate since it was only completed at the end of 2002. This current study will provide a new 'baseline' for use in future evaluations aimed at gauging the continuing impacts of the waterway. .

Economic impact was to be assessed by means of the following study objectives:

- Assess the economic benefits of the canal restoration accruing through increased tourism and leisure activity within the local economy, measured in terms of standard economic indicators (jobs created, income retained etc.).

- Produce a directory of all tourism and leisure businesses which benefit from the restored canal and provide information about the degree to which they rely on the waterway.

- Carry out detailed site-by-site analysis of all property developments that have taken place alongside the waterway since 1995 (whether British Waterways has been directly involved or not).

- Assess and quantify the economic impacts of these developments in terms of standard economic indicators (investment secured, jobs created etc.).

- Review the role of the canal restoration in enhancing the image of the area and attracting inward investment.

The methodology for this study was designed to address these objectives and involved two principal elements:

- To measure how the role of the canal has changed since 1995 through a combination of demand modelling and supply side analysis. The starting point of this stage was the original report published by Coopers and Lybrand in 1995.

- To produce a set of indicators relating to the health of the waterway economy and the businesses it supports. These indicators should be replicable in future years to assist with management decision making.

1.3 Re-visiting the 1995 Coopers and Lybrand Study

1.3.1 Methodology and Results

As noted above, the starting point for this study was the economic impact assessment of the Kennet and Avon Canal carried out by Coopers and Lybrand in 1995. This report measured the economic impact of the canal prior to the restoration programme, and predicted the future economic impact based on completion of the restoration. It is, therefore, possible to draw out information on the situation in 1995 and compare it with the situation now. Furthermore, we can – at least to an extent – test the validity of Coopers and Lybrand's predictions by comparing their results with those produced by this study.

Coopers and Lybrand measured the economic impact of the canal in terms of standard economic outputs of employment created (FTEs) and income secured. The following equation was used to estimate the employment impacts of the Kennet and Avon Canal:

Canal related employment =
    Direct tourism and leisure jobs
\+   Indirect tourism and leisure jobs
\+   Jobs created through canal-side developments
\+   Multiplier effects
–   Displacement/ additionality effects

Where:

- **Direct jobs** comprised jobs in directly dependent waterway businesses such as marinas, hire boat companies etc. based on the Kennet and Avon Canal, plus a proportion of employment at nearby tourism attractions. This figure was derived through a total of 81 business interviews.

- **Indirect jobs** were defined as a proportion of employment within companies supplying directly dependent waterway businesses (component manufacturers etc.), plus jobs created through off-waterway expenditure by towpath visitors to the Kennet and Avon Canal in pubs, restaurants, accommodation etc. Indirect employment was calculated in two separate ways:

    - Ten supplier businesses from the British Marine Industries Federation (BMIF) database were interviewed to establish the proportion of their employment which could be attributed to the Kennet and Avon Canal (15-20 per cent in the case of boat repair/ sales businesses and 3-7 per cent in the case of boating component companies). These proportions were then applied to total employment levels in supplier industries along the canal.

    - The impact associated with off-waterway expenditure by towpath visitors (in pubs and restaurants etc.) was calculated by applying standard British Waterways' expenditure estimates (£3.02 per visit) to recorded visitor numbers. Having factored in displacement (assumed to be 71 per cent), a multiplier of 1 FTE per £50,000 expenditure was used to estimate the number of resultant jobs.

- **Property related jobs** comprised jobs created through canal-side development schemes which would follow on from the restoration of the canal. These were estimated through consultation with local landowners, developers, property agents and, in some cases, identified end-users.

- A combined **supplier/ income employment multiplier** of 1.4 was used for both tourism and leisure and property sectors.

Income secured was measured in a similar way, applying a standard wage of £8,000 per local employee to estimate the annual injection of income into the local economy.

Coopers and Lybrand calculated the economic impact of the Kennet and Avon Canal under three scenarios:

- The current (1994) position
- A position of only 30 per cent cruiseway status (effectively the baseline position which the canal would revert to if restoration did not take place)
- A sustainable position of 100 per cent cruiseway status which would have resulted from the completion of the restoration programme

An important consideration within the Coopers and Lybrand report was the role of the baseline scenario. As noted above, over time it was argued that, without investment, the canal would cease to be fully navigable and tourism and leisure jobs supported by the waterway would be lost. In effect the canal would revert back to a 30 per cent cruiseway status. The economic impact of the restoration of the canal, therefore, needed to be considered in terms of:

- Income/ employment safeguarding (comparison of the position in 1994 with an estimation of the position under a 30 per cent cruiseway status).

- Income/ employment creation (comparison of the situation in 1994 with an estimation of the situation were the canal to be restored to 100 per cent cruiseway status).

- Resultant income/ employment additionality (a combination of the safeguarding and creation impacts of the canal derived by comparing the baseline scenario with the 100 per cent cruiseway status scenario).

Table 1.1 shows the employment impacts of the Kennet and Avon Canal according to Coopers and Lybrand, and Tables 1.2 and 1.3 give the income impacts of the waterway. Key points of note are that:

- Coopers and Lybrand estimated that the canal supported a total of 779 FTEs in 1994, all of which were based in the tourism and leisure industry.

- If the canal reverted back to 30 per cent cruiseway status it was calculated that some 706 jobs would be lost. However, once the restoration programme was complete and the canal was operating at 100 per cent cruiseway status, it was predicted that an additional 1,905 jobs would be created. The vast majority of these jobs (1,866) would result from property developments along the canal; only 39 new jobs would be created through the tourism and leisure industry (boating etc.).

- Once the restoration programme was completed, it was estimated that the Kennet and Avon Canal would support a total of 2,611 FTEs.

- In 1994 the canal was estimated to be responsible for an annual injection of £10.5 million into the local economy. If the canal had reverted back to a 30 per cent cruiseway status it was estimated that this figure would have fallen to £1.4 million a year.

- Coopers and Lybrand estimated that once the restoration programme was complete the annual injection of income into the local economy as a result of the Kennet and Avon Canal would rise to £28.8 million a year. The majority of this would result from employment opportunities created through canal-side development.

- It was estimated that canal-side development would result in £248.3 million of private sector investment, of which £48.7 million could be attributed to the canal.

- Coopers and Lybrand predicted that canal-side development would create 2,403 person years of employment, of which 487 could be attributed to the canal.

Table 1.1: Employment impacts predicted by Coopers and Lybrand (FTEs)

	Scenario position			Restoration impact		
Type	**Current (1994)**	**Baseline**	**Full restoration**	**Safe-guarded**	**Created**	**Total additional**
Tourism and leisure	779	73	818	706	39	745
Property	0	0	1,866	0	1,866	1,866
All	**779**	**73**	**2,684**	**706**	**1,905**	**2,611**

Source: Coopers and Lybrand, 1995

Table 1.2: Income impacts predicted by Coopers and Lybrand (£'000s)

	Scenario position			Restoration impact		
Type	**Current (1994)**	**Baseline**	**Full restoration**	**Safe-guarded**	**Created**	**Total additional**
Tourism and leisure	10,500	1,444	11,471	9,056	971	10,027
Property	0	0	17,329	0	17,329	17,329
All	**10,500**	**1,444**	**28,800**	**9,056**	**18,300**	**27,356**

Source: Coopers and Lybrand, 1995

Table 1.3: Private sector investment along the canal and resultant construction jobs as predicted by Coopers and Lybrand

Impact	**Total**	**Attributed to the canal**
Private sector investment (£m)	248.3	48.7
Construction impact (person years)	2,403	487

Source: Coopers and Lybrand, 1995

1.3.2 Applicability of the Coopers and Lybrand Report to the Current Study

The results of the Coopers and Lybrand report provide a useful starting point for this study and allow us to assess how the situation along the canal has changed over time (and whether their predictions have come true). However, it must be noted that there are a number of issues with regard to the methodology used by Coopers and Lybrand:

- Employment in canal-dependent businesses (marinas etc.) was calculated by means of a survey of 81 companies, yet it is unclear whether this figure represented all of the businesses along the waterway, or indeed whether a 100 per cent response rate was achieved. Such a bottom-up approach to estimating economic impact, whilst based on reality, risks underestimating the true economic impact if the business sample is incomplete. Moreover, the geographical extent of this database is unclear – businesses not located adjacent to the canal may still be largely dependent upon it for income (boat safety examiners, for example).

  It is also questionable whether all of the jobs at these companies can be attributed to the Kennet and Avon Canal. Coopers and Lybrand's definition of canal-dependent businesses includes some for which the canal would simply be one of many sources of income (museums, pubs, shops). Even those businesses which would appear to be reliant on the Kennet and Avon Canal may actually draw some business from users of other canals (though the impact of this was, to some extent, mitigated by asking businesses to estimate the proportion of their revenue coming from the Kennet and Avon Canal). It is hard to replicate this methodology given its subjective nature.

- It is unclear how estimates of employment attributable to the spend of canal dependent businesses were derived. Coopers and Lybrand carried out a survey of ten BMIF companies (itself a rather small sample) to estimate the proportion of canal related income, and then applied this to 'published information on turnover and staffing levels'. No further details or sources are available, and the resultant employment figure (204 FTEs) seems a little high.

- Expenditure along the canal in supporting facilities (pubs, shops, accommodation etc.) was based upon estimates of the number of visitors to the towpath. A couple of points need to be made here. Firstly, these visitor estimates were somewhat crude and British Waterways' monitoring information has improved considerably since 1995. Secondly, towpath visitors are only one source of expenditure; boaters (private and hire) also spend money locally and yet their impact was not considered. Indeed, Coopers and Lybrand's whole approach to measuring boater impact seems to underestimate their importance to the canal. For example, according to Coopers and Lybrand the impact of a growth in boating is only captured through the employment effects of new marina development and not, in addition, through the extra revenue this would produce for existing facilities.

- On the other hand there may be a couple of instances of double-counting in the study. Firstly, some of the employment in visitor attractions is presumably due to the 'off-site' expenditure by towpath visitors, yet these are treated separately. Moreover, some of the employment impacts forecast to be delivered through property development are in the types of leisure development (hotels, pubs, visitor centres, retail outlets) which towpath visitors would be expected to use.

- The usage of multipliers is a little confusing and somewhat inconsistent. For instance, Coopers and Lybrand calculated the number of jobs dependent upon the spend of canal dependent businesses (admittedly missing out expenditure on other types of supplies and only considering one link in the supply chain), which means that the first round indirect multiplier had already been estimated. The multiplier used – 1.4 – also seems a little high[1].

- Care also needs to be taken in using the estimates given for local income. Here the study uses different approaches. For towpath visitors income is equivalent to an estimate of visitor expenditure, forming a revenue stream for businesses within the canal corridor and helping to support jobs. However, for the directly dependent waterway businesses, income is estimated through a reverse process – from employment to income. This means that income only relates to the wage payments and ignores that part of business revenue which is subsequently spent on supplies. In part this is picked up through the interviews with BMIF members, though this is not comprehensive and, since spending by directly dependent businesses on supplies within the local economy is effectively 're-spending' of original revenue, it should not be netted out. For the boating supplies sector the approach is different again. In this case income is based on a proportion of total revenue which is derived from 'published sources' as opposed to information from businesses themselves.

- Coopers and Lybrand did not provide a clear time horizon for when benefits would be achieved, only that they would follow from restoration. Realistically, since the restoration programme has only just been completed, it is unlikely that predicted impacts would have been expected to come to pass at this stage.

This review has shown that the Coopers and Lybrand study used a mixture of different approaches to assessing economic impact, most probably due to data shortages at the time. With the benefit of hindsight it is clear that the study rather fell between the two stools of a 'demand-led' prediction of visitor numbers/ expenditure and a 'supply-side' analysis of the actual business operating alongside and close to the waterway.

With these considerations in mind it was decided that it was impractical and undesirable to simply replicate the methodology adopted by Coopers and Lybrand in this study. In addition to methodological issues, data sources are now more comprehensive than they were in 1995 which allows for a more sophisticated economic impact analysis. The approach taken is explored in more detail in the following section.

[1] A study of multipliers within the tourism and leisure industry in Scotland suggested a figure of 1.3, whilst previous studies by ECOTEC have used a multiplier of 1.2.

1.4 Study Methodology

The methodology for this study was set out in the original proposal submitted by ECOTEC and Grimley and refined in light of discussions with British Waterways at an inception meeting held in November 2002. It was decided that the economic impact of the canal could best be calculated using a combination of a top-down demand model and a bottom-up supply side survey. This approach allows us to explore both the quantitative impact of the canal in terms of jobs created/ income secured through tourism and leisure and property development, and also the qualitative effect on businesses along the waterway. Key activities undertaken were as follows:

- A thorough review of the 1995 Coopers and Lybrand report to explore the role of the canal prior to the restoration programme.
- The tourism and leisure impact of the canal was calculated using British Waterways' demand model which was run for 1995 and 2002 to produce estimates of visitor spend and associated employment generated.
- A database of tourism and leisure businesses along the canal was assembled for 1995 based on the Coopers and Lybrand report.
- A database of tourism and leisure businesses along the canal corridor was assembled for 2002 using information from Yell.com and the Association of Canal Enterprises. These businesses were then mapped by British Waterways.
- A postal survey was sent to each of these businesses exploring issues such as the role of the canal, employment/ income levels, and attitudes towards the post-1997 restoration programme.
- A review was undertaken of all property development alongside the canal since 1995 and estimates were made of the associated economic impact (taking account of factors such as displacement and double-counting).
- Discussions were held with developers, estate agents and representatives from Local Authorities in order to establish the impact of the canal on local property markets.
- A set of indicators were produced to monitor the situation alongside the canal in terms of the environment, the economy, and the health of businesses. These indicators can be used for future management purposes.

Further methodological issues are discussed within the relevant sections of the report. The results from each of these stages have been combined to produce an overall estimate of the economic impact of the waterway in 1995 and 2002. The difference between these two dates can be taken as an indication of the impact of the canal restoration programme underway since 1997, once factors such as displacement have been taken into account. In principle, of course, it is necessary to consider the impact of the canal against a counterfactual position (a measure of what would have happened regardless of the restoration programme). Given national trends in tourism and leisure, it is likely that usage of the canal (particularly for cycling and walking) would have increased at any rate since 1995 which clearly complicates the interpretation of the data. These issues are explored further in Section 2.1. Finally, this quantitative approach has been balanced with a qualitative consideration of the role of the canal in terms of the views of businesses and the opinions of representatives working in the property market.

1.5 Report Structure

The remainder of the report is structured as follows:

- Section Two – gives the results of the demand model developed by British Waterways to measure the economic impact of tourism and leisure expenditure along the canal

- Section Three – presents the database of tourism and leisure businesses along the canal and analyses the results of the survey sent out to these businesses to determine their views on the canal

- Section Four – profiles property developments along the canal and their associated economic impact, and presents a review of the impact of the canal on local property markets and inward investment levels

- Section Five – summarises the economic impact of the canal and presents a review of the role of the waterway

- Section Six – suggests a set of indicators which could be used for future monitoring and management of the waterway economy

2.0 TOURISM AND LEISURE DEMAND MODEL

2.1 Context and Scope

As noted above in Section 1.0, one of the aims of this piece of research is to measure the economic impact associated with increased tourism and leisure usage of the restored canal. This has been addressed in two ways:

- A top-down demand assessment using a multiplier approach to estimate change in visitor numbers and associated spend/ job creation.

- A bottom-up supply side assessment exploring reported changes at the level of individual tourism and leisure businesses (including turnover/ employment patterns).

This section of the report addresses the first of these elements – the demand assessment. For the purposes of this study, demand was measured using a model developed by British Waterways for estimating the tourism and leisure impact of waterways. Methodological details are set out below (Section 2.2), but essentially the model estimates visitor numbers (broken down by type of user) and uses multipliers to calculate resultant spend and employment opportunities created. It should be noted that the British Waterways model differs from the Coopers and Lybrand approach and so the results of the two reports are not strictly comparable. So as to allow for analysis of change over time, the tourism and leisure impacts of the canal in 1995 have been re-calculated using the British Waterways model.

In order to measure the benefits of the canal restoration programme it is necessary to calculate the tourism and leisure impact of the canal prior to the commencement of the restoration, and also once it had been completed. Furthermore, economic impact assessments usually involve consideration of the counterfactual position; essentially a measure of what would have happened without the restoration of the canal. In the case of the Kennet and Avon Canal, it is likely that tourism and leisure usage of the canal would have increased at any rate given national trends. However, as discussed in Section 1.3, Coopers and Lybrand developed a counterfactual scenario based on the assumption that, if restoration did not take place, the canal would revert to 30 per cent cruiseway status. As a result, much of the tourism and leisure industry that had developed along the canal by 1995 would have disappeared with resultant job losses.

For the purposes of this study it was decided not to repeat Coopers and Lybrand's approach and construct a counterfactual scenario based on the canal reverting to 30 per cent cruiseway status. Instead, the tourism and leisure impact of the waterway was calculated for 1995 and 2002, and the difference between the two figures was taken to be the effect of the restoration programme. This decision was based on the fact that, as discussed above, many elements of the Coopers and Lybrand approach cannot be replicated. To some extent the construction of an alternative development trajectory based on the assumption that large sections of the canal would fall into disrepair is an artificial process. Moreover, attaching a timeframe to such a course of events is problematic; Coopers and Lybrand themselves did not attach a date to the baseline scenario.

The remainder of this section is structured as follows:

- A summary of the methodology developed by British Waterways
- Presentation of the results of the model for 1995 and 2002
- Key messages

2.2 Demand Model Methodology

The methodology for the British Waterways tourism and leisure demand model has been developed over recent years and applied to a number of different canals to test its validity. There are a number of elements within the model (detailed spreadsheets are attached as Annex C):

- Estimates are made of the number of canal users, broken down by type (boaters, anglers etc.) Where possible this is drawn from available data (boat licenses, pedestrian counters), but it often the case that such information does not exist, or that it is not available for the required date. In such instances proxies are used such as national survey data or information drawn from comparable canals. It is also important to take account of additionality since some visits to the canal would have been made regardless of the restoration programme.

- Having calculated the number of additional visitors to the canal, it is necessary to establish their associated expenditure. This is obtained through an estimation of activity patterns for a variety of different categories of waterway user. Average spend per head estimates drawn from national and local surveys are then applied to these visitor numbers to obtain an overall expenditure figure.

- Employment directly resulting from visitor expenditure is calculated using standard industry multipliers. Another multiplier is used to estimate indirect employment generated though supplier/ income expenditure.

The first stage within the model is the calculation of the number of canal users and the resultant number of visitor days. This needs to be broken down by the type of user since associated spend (and thus economic impact) varies between groups. There follows a brief description of the assumptions made with regard to estimating visitor numbers:

Boating. The number of private moored boats, hire boats, day boats and trip boats on the canal has been taken from the British Waterways Craft Licensing database. Change over time can thus be monitored with a high level of accuracy. The number of visiting boats (privately owned boats passing through the Kennet and Avon Canal) can be estimated using lockage data which is available historically.

Informal visitors. Estimating the number of informal visits to the canal is problematic, and represents the biggest uncertainty within the model. In the long-term, British Waterways plans to install pedestrian counters at locations along the towpath which will provide accurate information. For the purposes of this study, however, informal visit numbers have been estimated using data drawn from visitor surveys carried out along the towpath. Surveys indicate that the number of visits to the canal increased by an average of 1.5 per cent in 2002 (based on results from three locations), and by 3.9 per cent in 2001 (again an average of three locations).

To estimate change between 1995-2002, it has been assumed that informal visitor days grew by 1.5 per cent p.a. between 1995-99, before increasing to 3.5 per cent p.a. in 2000 and 2001 (to reflect the results of the restoration programme). A 1.5 per cent growth rate is assumed for 2002, based on the results of the visitor surveys. Overall this produces a growth rate in visits of 15 per cent for 1995-2002. This figure is somewhat lower than the 30 per cent figure assumed by Coopers and Lybrand, though since there was no timeframe attached it is difficult to make a direct comparison.

It is interesting to compare the estimated growth rates for informal visits to the Kennet and Avon Canal with those recorded at other sites across the country. British Waterways have monitored a number of sites pre and post improvement projects to allow for a before and after comparison (see Table 2.1). These data are collected by pedestrian counters and are thus more accurate than extrapolations from surveys. Though these locations are not strictly comparable to the Kennet and Avon Canal, they do nevertheless give an indication of the magnitude of change. It is clear that the 15 per cent growth rate assumed for the Kennet and Avon Canal is on the conservative side when compared with observed growth rates recorded elsewhere in the country.

Table 2.1: Pedestrian counts at waterside locations

	Visits per annum		
Site	**Before improvement**	**After improvement**	**% change**
Walsall (W.Midlands)	71,500 (1999)	154,500 (2001)	+110%
Stourbridge (W.Midlands)	41,500 (1999)	87,500 (2001)	+111%
Ratho (Scotland)	18,000 (1998)	75,000 (2001)	+317%
Linlithgow (Scotland)	17,000 (1997)	163,000 (2001)	+859%
Edinburgh (Scotland)	94,000 (1997)	145,000 (2001)	+ 54%

Source: British Waterways pedestrian counter estimates

Canoeing. There is evidence that, nationally, canoeing is growing in popularity owing to the fact that it is relatively inexpensive and easy to learn. Canoeing on canals has developed through canoe clubs, special events, touring and canoe hire and there are a number of facilities along the Kennet and Avon Canal. For the purposes of this study it has been assumed that, between 1995-2002, canoeing grew at the same rate as informal users of the towpath (by 1.5 per cent p.a. for 1995-99, by 3.5 per cent p.a. for 2000-01, and by 1.5 per cent in 2002).

Angling. It is difficult to determine trends in coarse angling over time, but data suggest that the market is, at best, static. Information from the National Federation of Anglers shows a reduction in affiliated clubs and the number of members which suggests that there may have been a decline in angling participation (at least in terms of organised activity). For this reason it has been assumed that levels of angling along the canal are the same in 2002 as they were in 1995.

Cycling. Cycling is one of the most popular forms of outdoor recreation, though there is a shortage of localised data. Monitoring information collected by Sustrans indicates that levels have grown over recent years, and canal towpaths provide a scenic and traffic-free cycleway. As with canoeing, for the purposes of this study it has been assumed that, between 1995-2002, canoeing grew at the same rate as informal users of the towpath (by 1.5 per cent p.a. for 1995-99, by 3.5 per cent p.a. for 2000-01, and by 1.5 per cent in 2002).

Table 2.2 summarises the number of canal users by category in 1995 and 2002 (see also Annex C).

Table 2.2: canal usage by category, 1995 and 2002

Category	1995 (no.)	2002 (no.)	% change	Source	Notes
Moored private boats	937	1,251	33.5	BW Craft Licensing Database 1995 and 2002	
Visiting boats	350 visits	438 visits	25.1	Lockage data (1995) and BW Lockage Report 2001 (Water Resources)	Using boat:lock ration of 1:8 gives average boat movements for whole waterway. Visiting boats assumed to be 25% of total
Hire boats	72	80	11.1	BW Craft Licensing Database 1995 and 2002	Categories HIR, RHR and MUL (time share)
Trip boats	9	9	0.0	BW Craft Licensing Database 2002; Nicholson's 2000; ACE directory	CLS category LIT
Day boats	15	14	-6.7	BW Craft Licensing Database 1995 and 2002	CLS categories HDB, HDN, HUN, RDB, RHN, RHU
Canoeing	99,400	114,700	15.4	Informal Visitor	Growth assumed

	visitor days	visitor days		Survey 1995 / UKDVS 1996	the same as for towpath visits
Anglers	106,000 day visits	106,000 visitor days	0.0	Informal Visitor Survey 1995 / UKDVS 1996	Little evidence for growth in angling nationally in recent years
Cycling	474,000 visitor days	547,000 visitor days	15.4	Informal Visitor Survey 1995 / UKDVS 1996	Growth based on analysis of towpath surveys at Bradford, Devizes and Newbury
Informal visitors	6,671,000 visitor days	7,698,424 visitor days	15.4	Informal Visitor Survey 1995 / UKDVS 1996	Growth based on analysis of towpath surveys at Bradford, Devizes and Newbury

Source: British Waterways Demand Model, 2002

Having estimated the number of canal visits in 1995 and 2002, it is necessary to calculate their expenditure and associated employment opportunity creation. As noted above, this is based on the application of multipliers drawn from national and local surveys and similar pieces of research. Table 2.3 lists the assumptions used as part of this process; results are shown in Section 2.3 below.

Table 2.3: Assumptions used within the tourism and leisure demand model

	Assumption	**Source**	**Notes**
Boat related expenditure	Expenditures are national average figures	Boat purchase and maintenance expenditure from 1997 Price-Demand study	Licence fees excluded from maintenance since these go to British Waterways
Visit expenditure	Expenditures are national average figures	Based on most recent applicable BW survey information	National data used since quality of local data is variable
Private/ hire boats	Ratio 75:25 between private and hire boat traffic	Assumed	
Day trippers/ overnight visitors	Ratio 80:20 day and overnight visitors assumed	Based on national towpath survey results	Overnight spend estimates taken from UK Tourism Statistics for South West region
Displacement	Zero for all activities except cycling and towpath visits For cycling and towpath	Based on national towpath survey results	All new boating activity considered additional at the sub-regional level

	visits: 80% for day trippers, 85% for overnight visitors	
Multipliers	Combined indirect / induced effect of 1.3	Scottish Tourism Study[2]
Employment	1 FTE per £25,000 direct, indirect & induced visitor spend 1 FTE per £50,000 direct, indirect & induced boat spend	Scottish Tourism Study

Source: British Waterways Demand Model, 2002

2.3 Results and Analysis

2.3.1 Expenditure

Table 2.4 shows the expenditure resulting from tourism and leisure visits to the Kennet and Avon Canal in 1995 and 2002. A number of points can be made:

- The estimated size of the waterway tourism and leisure economy was £22.0 million in 1995. This increased by £4.7 million (21.2 per cent) to an estimated £26.7 million in 2002.

- Expenditure associated with boating (mooring, maintenance and purchase) totalled an estimated £3.3 million in 1995, and £5.2 million in 2002. This represented an increase of some £1.9 million (59.4 per cent) during the period of the canal restoration.

- Estimated visit-related expenditure far exceeds that attached to boating (£21.5 million compared to £5.2 million in 2002). However, visit-related expenditure grew at a slower rate between 1995-2002 (by 14.6 per cent).

- The largest source of visit-related expenditure in 2002 was inbound holiday visitors (worth an estimated £9.2 million per year). Local day visitors spent a further £5.2 million in 2002.

Table 2.4: Tourism and leisure expenditure along the Kennet and Avon Canal, 1995 and 2002

	Expenditure (£'000s per year)		**Change 1995-2002**	
Canal user	**1995**	**2002**	**£'000s**	**%**
Private moored boats (mooring charges)	590	780	190	32.2
Private moored boats (maintenance costs)	780	1,040	260	33.3

[2] Scottish Tourist Board etc. (1993), 'Scottish Tourism Multiplier Study 1992'

Private moored boats (purchase costs)	2,520	3,360	840	33.3
Private moored boats (visit spend)	1,200	1,595	395	32.9
Visiting boats	150	180	30	20.0
Hire boats	1,800	2,010	210	11.7
Trip boats	540	540	0	0.0
Day boats	150	140	-10	-6.7
Trail boats	540	540	0	0.0
Canoeing	300	340	40	13.3
Angling	660	660	0	0.0
Cyclists	990	1,130	140	14.1
Local day visitors	4,480	5,170	690	15.4
Inbound holiday visitors	7,970	9,190	1,220	15.3
Total direct visit spend	18,760	21,500	2,740	14.6
Total direct boat spend	3,250	5,180	1,930	59.4
Total direct spend	**22,010**	**26,680**	**4,670**	**21.2**

Source: British Waterways Demand Model, 2002

2.3.2 Employment

The employment associated with visitor expenditure is shown in Table 2.5. Key points of note are that:

- Tourism and leisure expenditure supported a total of 815 FTEs in 1995, and 965 in 2002. This represented an increase of 150 new FTEs (18.3 per cent).

- In 2002 a total of 742 FTEs were directly dependent upon tourism and leisure users of the Kennet and Avon Canal (up from 627 in 1995). A further 223 FTEs were indirectly dependent upon the waterway in 2002.

- Not surprisingly given the expenditure breakdowns set out in Table 2.3, visit-related spend accounted for the majority of employment. In 2002, visit-related spend supported a total of 861 FTEs, an increase of 14.7 per cent from 1995. Boat-related spend supported a further 104 FTEs, an increase of some 60 per cent from 1995.

Table 2.5: Employment resulting from tourism and leisure expenditure along the Kennet and Avon Canal, 1995 and 2002

		Employment (FTEs)		**Change 1995-2002**	
Employment type		**1995**	**2002**	**No.**	**%**
Direct	Boat spend	50	80	30	60.0
	Visit spend	577	662	85	14.7
	Total	627	742	115	18.3
Indirect and induced	Boat spend	15	24	9	60.0
	Visit spend	173	199	26	14.7

	Total	188	223	35	18.3
Total	Boat spend	65	104	39	60.0
	Visit spend	750	861	111	14.7
	Total	**815**	**965**	**150**	**18.3**

Source: British Waterways Demand Model, 2002

2.4 Key Messages

This section of the report has set out a demand-side analysis of the impact of the canal using a model to predict the spend generated by canal users. This was then converted into associated employment effects, taking account of factors such as displacement and leakages. Key messages emerging from this exercise are as follows:

- Since 1995 there have been major increases in the number of people using the Kennet and Avon Canal. In particular, there has been significant growth in the number of boaters, with mooring licenses increasing by 33.5 per cent to 1,251 in 2002. The number of visiting boats (boats which pass through the canal) increased by 25.2 per cent over the same time period. Whilst data is patchy and cannot be wholly trusted, it appears as though the number of informal visitors to the canal also increased rapidly over the course of the restoration programme. In 2002 it was estimated that there were some 7.7 million visits to the canal, an increase of 15.4 per cent from 1995.

- Increased tourism and leisure usage of the canal has had a significant economic impact. In 1995 the visitor economy was estimated to be worth some £22 million, and by 2002 it had increased to some £26.7 million. Of this total, an estimated £14 million was accounted for by informal visitors (excluding cyclists, anglers etc.). Private boaters contributed a further £6.8 million which represented a 33.1 per cent increase from the 1995 total of £5.1 million.

- Visitor expenditure creates employment opportunities. British Waterways' demand model estimates that the Kennet and Avon Canal directly supported 742 FTEs in 2002. Once indirect and induced employment is considered, the total rises to 965 FTEs. Since 1995 the number of FTEs created as a result of the canal has risen by 150 or 18.3 per cent. Visit-related spend accounted for the majority of jobs (861 FTEs in 2002), whilst the boating economy supported 104 FTEs in 2002.

- Whilst every effort has been taken to ensure that the data used within the demand model are accurate (including cross-checking against results for similar canals), there a number of gaps (informal canal users in particular) which mean that information has had to be extrapolated from other sources. Until more accurate data are available (British Waterways intends to install a network of pedestrian counters along the canal towpath, for example), there may be inaccuracies. In particular there are concerns about the problems of both identifying total change and separating out the effects of the restoration from those of 'background growth'. The following section of this report details the results of a survey of tourism and leisure businesses carried out as part of this study at the end of 2002. This survey can be used to substantiate elements of the demand model through grossing-up results (accepting that this is a somewhat crude process), an exercise which is summarised in Section 5.0.

3.0 THE VIEWS OF TOURISM AND LEISURE BUSINESSES

3.1 Context and Scope

Section 2.0 set out a demand-side analysis of the impact of the canal using a model to predict the spend generated by canal users. This was then converted into associated employment effects, taking account of factors such as displacement and leakages. Provided the assumptions used in the model are robust (and every care was taken to ensure that this was the case), this approach is a useful and informative method of quantifying the tourism and leisure impact of the canal. However, such a top-down approach to economic impact assessment does not take account of the realities on the ground; it is assumed that local businesses are able to capture the benefits accrued from increased visitor spend when in fact this may not be the case. Moreover, a purely quantitative methodology fails to get to grips with qualitative issues such as business views on the canal and the way in which it is managed.

This section of the report responds to these challenges and sets out a supply-side analysis of the tourism and leisure impact of the canal. This includes an analysis of the views of local businesses with regard to the role of the canal, its impact on their activities, and the effects of the restoration programme. Given the scale of this task (the canal is some 87 miles long and runs through large urban areas such as Bath and Reading), it was decided that a postal survey of businesses would be the most appropriate research tool.

3.2 Constructing the Sample Frame

3.2.1 Defining the Canal Corridor

The first task in developing the sample frame for the business survey was to create a geographical definition of the canal corridor. In consultation with ECOTEC, British Waterways developed a definition based on:

- All postcodes within a two mile corridor (one mile each side of the canal), reflecting a British Waterways study suggesting that canal visitors will not travel much further for facilities. For the purposes of this study the canal runs between Bath and Reading. It was subsequently decided that, in the urban areas of Bath, Newbury and Reading, the corridor should be narrowed to a quarter of a mile (1/8th of a mile either side of the canal). This reflected the fact that, given the denser nature of facilities in urban areas, canal users would be unlikely to travel as far from the waterway as they would in rural areas.

- All postcodes within a ten mile corridor (five miles each side of the canal) for tourist attractions to reflect the fact that canal visitors will travel further for such facilities.

- A check was also made for boating businesses across the counties of Avon, Wiltshire and Berkshire. However, this only produced a small number of additional businesses, confirming the decision to focus on a tight definition of the canal corridor.

3.2.2 Constructing the Business Database

Having established a postcode based definition of the canal corridor, a database of all tourism and leisure related businesses was constructed drawing on three sources:

- A business database purchased from Yell.com which included:

    - Accommodation
    - Pubs
    - Restaurants and cafes
    - Tourist Attractions
    - Selected shops (food and some art & craft shops)

- A database of businesses who are members of the Association of Canal Enterprises (ACE). ACE represents commercial interests along the Kennet and Avon Canal and includes a large number of waterway-dependent businesses including:

    - Marinas
    - Hire/ cruise boat companies
    - Boat builders/ repairs/ parts/ sales
    - Safety examiners
    - Supporting industries (such as fuel suppliers)

- Adverts in waterway-related journals

- Waterways World Annual directory 2002

Once duplicates were removed, the final database (included as an electronic database in Annex A to this report) consisted of 616 entries. Postal questionnaires were sent to each of these businesses. Table 3.1 gives a breakdown of the sample frame by business type.

Table 3.1: Business types within the sample frame

Business type	**Number**	**% of all**
Restaurants/ cafes/ pubs	239	38.8
Pubs	*128*	*20.8*
Restaurants / wine bars	*67*	*10.9*
Cafes/ sandwich shops	*44*	*7.1*
Shops	218	35.4
Accommodation	80	13.0
Hotels/ inns	*37*	*6.0*
Guest Houses	*40*	*6.5*
Camping/ caravan sites	*3*	*0.5*
Boating facilities	49	8.0
Tourist attractions	30	4.9
All	**616**	**100.0**

Source: ECOTEC analysis

If this exercise was to be repeated (as part of the waterway economy monitoring process, for example), we would recommend the addition of data on the number of accommodation facilities and visitor attractions held on the TRIPS database from the British Tourism Authority. Unfortunately within the confines of this study we were unable to access this information, but experience has shown that it is more comprehensive than Yell.com. Yell.com has advantages and disadvantages as a business database. On the plus side it is relatively user friendly and inexpensive, but on the negative side it is doubtful whether it has the same level of coverage as other databases. Alternative databases (such as D&B and CountyWeb) claim to be more comprehensive (though this has been impossible to verify), but are more expensive and in some respects less suited to this study (search queries are based on SIC codes which do not match with categories such as boat-based visitor attraction or bed and breakfast, for example).

3.3 Constructing the Questionnaire

The questionnaire was developed in close collaboration with British Waterways to ensure that it addressed all of the research objectives. A draft version was prepared by ECOTEC and circulated to British Waterways. Subsequent revisions were incorporated and a final version completed by 3rd December. The questionnaire was 21 questions long and covered six main areas:

- Contact details
- Business background
- Employment details
- Turnover details
- The role of the Kennet and Avon Canal
- The restoration of the Kennet and Avon Canal

A copy of the questionnaire is attached as Annex B.

3.4 Response Rate

The postal survey was sent out on the 9th December and by 10th January a total of 93 completed questionnaires had been received (a response rate of 15.1 per cent). Experience has shown that this figure is somewhat lower than what might be expected, though this is doubtless a reflection of the fact that the survey was sent out just prior to the Christmas break. Moreover, the database included a wide variety of businesses, many of which would have had a tenuous connection to the canal (and thus may not have seen the need to respond).

In order to boost the response rate, it was decided to conduct a series of telephone interviews with the canal-dependent businesses identified from the ACE database that had not returned the postal questionnaire. It should be noted that a slightly higher response rate had already been achieved with this group. A further 12 interviews were completed in this manner, bringing the total number of responses to 105 (overall a 17 per cent response rate). The remaining businesses on the ACE database were either unwilling to participate, or could not be contacted (because the contact telephone number proved incorrect or because there was no answer). It is likely that, given the seasonal nature of the tourism and leisure industry, a number of businesses had shut for the Winter. An amended business database was produced to take account of the telephone survey process.

3.5 Background of Respondents

Table 3.2 shows the geographical distribution of respondents, according to their post town:

- Devizes was the most common business location, accounting for some 18.3 per cent of respondents.

- The major urban areas of Bath, Newbury and Bristol were the next most frequent locations for businesses, accounting for 14.4 per cent, 13.5 per cent, and 10.6 per cent of respondents respectively.

Table 3.2: Location of respondents

Location	Number	%
Devizes	19	18.3
Bath	15	14.4
Newbury	14	13.5

Bristol	11	10.6
Bradford-on-Avon	8	7.7
Reading	7	6.7
Trowbridge	5	4.8
Thatcham	4	3.8
Pewsey	4	3.8
Marlborough	4	3.8
Keynsham	4	3.8
Hungerford	3	2.9
Melksham	2	1.9
Aldermaston	1	1.0
Other	3	2.9

Base = 104

For the purposes of analysis it is helpful to group these locations. Two forms of classification have been used:

- *Location along the canal* – West (from Bristol to Melksham); Central (Devizes to Hungerford); and East (Newbury to Reading)

- *Type of location* – Urban (major settlements such as Bath, Bristol, Reading and Newbury); Semi-urban (smaller towns such as Devizes, Bradford-on Avon, Thatcham and Trowbridge); Rural (small settlements such as Pewsey and Hungerford plus areas between towns).

Table 3.3 shows the number and proportion of businesses falling within each of these categories. Of particular interest is that:

- The Western reaches of the Kennet and Avon Canal accounted for the single largest group of respondents (43.3 per cent of the total)

- The majority of respondents (51 per cent) were based in urban areas. Just 15.4 per cent of businesses were based in rural areas

Table 3.3: Analysis of location of respondents

	Number	**%**
Location along the canal		
West	45	43.3
Central	30	28.8
East	29	27.9
Type of location		
Urban	53	51.0
Semi-urban	35	33.7
Rural	16	15.4

Base = 105

Respondents were asked to describe the legal status of their business, as shown in Table 3.4:

- The most common legal status of businesses was sole traders/ independents which accounted for 48.6 per cent of respondents.

- Partnerships and private limited companies represented a further 18.1 per cent each.

Table 3.4: Legal status of respondents

Legal status	**Number**	**%**
Sole trader/ independent	51	48.6
Partnership	19	18.1
Private Limited Company	19	18.1
Charity	12	11.4
Public Limited Company	4	3.8

Base = 105

As noted above, the sample frame included a broad mixture of types of tourism and leisure business. These can be broken down further (see Table 3.5):

- The most frequently mentioned business activity was pub/ café/ restaurant (31.4 per cent of respondents). A further 22.9 per cent of respondents described themselves as facilities for the building/ repair/ sale of boats.

- Some 19 per cent of businesses classed themselves as ‘other’. This group was largely made up of non-food shops, particularly bookshops and art & craft shops.

Table 3.5: Activity of respondents

Type of activity[3]	**Number**	**%**
Pub/ café/ restaurant	33	31.4
Boating facility/ repair/ sales	24	22.9
Other	20	19.0
Accommodation	17	16.2
Off-canal tourism and leisure attraction	14	13.3
Canal-based tourism and leisure attraction	13	12.4
Food and drink shop/ grocers	9	8.6

Base = 105

Respondents were asked to indicate how long their business had been in operation, and how long they had been based at their current site. Table 3.6 shows the results:

- Businesses along the canal tended to have been in operation for a long time. Some 42.1 per cent of respondents had been in business for at least 15 years, and a further 24.2 per cent for between 8-14 years.

[3] Respondents could undertake more than one activity

- Just 12.6 per cent of businesses had been in operation for under two years.

- Some 32.9 per cent of businesses had been based at their current location for at least 15 years and a further 31.8 per cent for between 8-14 years.

- 11.8 per cent of businesses had been at their current location for under two years.

Table 3.6: Length of time businesses had been in operation, and at current location

	In operation		**At current location**	
Length of time	**Number**	**%**	**Number**	**%**
0-2 years	12	12.6	10	11.8
3-7 years	20	21.1	20	23.5
8-14 years	23	24.2	27	31.8
15 years plus	40	42.1	28	32.9

Base = 95 (for in operation), 85 (for at current location)

It is interesting to consider whether businesses pre-date the restoration programme which commenced in 1995, whether they have been established since, and whether they have moved into the area from elsewhere. Analysis shows that:

- Some 68.7 per cent of businesses were established prior to 1995. Of this group, 16.2 per cent had moved to the canal, again all prior to the commencement of the restoration programme. Reading and Bristol were the most frequently mentioned origin locations.

- 31.3 per cent of respondents indicated that their business had been established since 1995. Just 3 per cent of this group had moved to the canal from elsewhere (again since 1995), with Reading and Berkshire the origin locations.

Businesses were then asked to indicate how important the canal had been in their choice of location. Table 3.7 shows the results:

- Some 28.4 per cent of respondents rated the canal as ‘very important’ in their choice of location, and a further 11.8 per cent felt that the waterway had been ‘important’. In total, therefore, the canal was a strong positive factor in the location decision of some 40.2 per cent of businesses.

- 30.4 per cent of respondents felt that the canal had been ‘neither important nor unimportant’ in their decision as to where to locate their business.

- The canal was seen as ‘very unimportant’ as a location factor by 13.7 per cent of respondents.

Table 3.7: Importance of the canal in businesses' choice of location

Importance of canal	Number	%
Very important	29	28.4
Important	12	11.8
Neither important nor unimportant	31	30.4
Unimportant	16	15.7
Very unimportant	14	13.7

Base = 102

3.6 Employment Levels

Respondents were asked to indicate how many people were employed at their business in 1995 (or in their first year of operation if the business was established more recently), and how many people they currently employ. In this way it is possible to establish whether employment is growing along the canal corridor, and to investigate whether this is a result of the Kennet and Avon Canal.

Table 3.8 shows the number of people employed in businesses along the waterway. Key findings are that:

- The canal corridor is dominated by micro firms (employing between 0-9 people) which accounted for 69.5 per cent of businesses in 2002. Just 4.8 per cent of businesses employed over 50 people in 2002.

- Between 1995-2002, the proportion of micro firms shrunk from 82.9 per cent to 69.5 per cent. Conversely, the proportion of small firms (employing between 10-49 people) grew from 14.3 per cent in 1995 to 25.7 per cent in 2002. Whilst this does not mean that the employment structure of businesses along the canal corridor is changing towards a preponderance of small firms, it is an indication that businesses along the waterway are growing in size.

Table 3.8: The number of people employed by businesses

	1995[4]		2002	
No. employed	**Number**	**%**	**Number**	**%**
0-9	87	82.9	73	69.5
10-49	15	14.3	27	25.7
50-249	3	2.9	5	4.8

Base = 105

In order to explore the issue of change in employment over time in more detail, a comparison was made between the number of people employed by each business in 1995 and 2002 (see Table 3.9). The data show that:

[4] Or the first year of operation if the business was established more recently

- Some 46.6 per cent of respondents saw an increase in their employment levels between 1995-2002. The same proportion reported that their staff numbers had remained the same.

- Just 6.7 per cent of respondents reported that the number of people employed at their business decreased between 1995-2002

Table 3.9: Change in employment between 1995-2002

Change 1995-2002	Number	%
Increased	49	46.6
Remained the same	49	46.7
Decreased	7	6.7

Base = 105

It is interesting to consider whether change in employment levels varied between different types of business. Results show that:

- Employment growth was slightly more likely amongst off-waterway tourist attractions and pubs/ cafes/ restaurants where 57.1 per cent and 57.6 per cent of respondents indicated that staff numbers had grown between 1995-2002 (as opposed to 46.6 per cent of businesses in the sample as a whole).

- Waterway-dependent businesses (boating facilities and canal-based attractions) were more likely to report stable levels of employment change. For example, 58.3 per cent of businesses specialising in boat building/ repairs/ sales recorded no change in staff numbers between 1995-2002 (compared to 46.7 per cent of all respondents).

- Employment decline was more likely amongst businesses providing accommodation where 11.8 per cent reported a drop in staff numbers.

It is difficult to determine whether employment change (positive and negative) can be attributed to the canal and the restoration programme that started in 1995. In spite of the effects of the outbreak of Foot and Mouth Disease and the events of September 11, the tourism and leisure industry has witnessed rapid growth in recent years. The canal runs through attractive countryside and also the city of Bath, one of the principal tourist destinations in the UK. It is reasonable to assume, therefore, that tourism and leisure businesses along the waterway would have experienced employment growth regardless of the effect of the canal.

One way in which to test the results of the survey is to use national data sources to explore employment patterns along the canal corridor. According to the Annual Business Inquiry, employment in tourism and leisure related sectors in the five Local Authorities through which the canal passes[5] grew by 15.7 per cent between 1995-2001 (compared to an 18.5 per cent increase in Great Britain as a whole). Whilst this information confirms the overall picture of

[5] Reading, West Berkshire, Kennet, West Wiltshire, and Bath and North East Somerset

growth emerging from the survey, it unfortunately does not allow us to explore the experiences of individual businesses. Short of purchasing specialist business databases (D&B, Companies House), it is impossible to investigate this in any more detail.

To investigate the issue of employment change further, respondents were asked to identify factors that had affected the number of people that they employed. Positive factors mentioned include:

- An increase in visitor and boat numbers which has generated increased demand for services and amenities along the canal
- Growing public awareness of the canal and better signage
- General business expansion
- Business diversification. In a couple of cases hire boat facilities reported that they had expanded into boat manufacture and repair in order to increase revenue. A number of pubs had also increased their food/restaurant facilities
- Canalside housing development
- The restoration of the canal

A number of businesses also identified factors that had had a negative impact on their employment levels in recent years. Examples include:

- Foot and mouth disease
- The temporary closure of sections of the canal which deprived a number of businesses of income for a short period
- Road closures in the area
- The slump in visitor numbers following September 11
- Poor weather
- The high value of the pound

In order to explore whether these increases in employment levels were actually benefiting local people, respondents were asked to indicate the proportion of their staff who lived locally. In this way it is possible to quantify the level of leakage (spend associated with the canal that is actually benefiting people outside of the local economy). Table 3.10 shows the results:

- On average, respondents indicated that 29.2 per cent of their workforce lived within one mile of their business

- A further 42.7 per cent lived between 2-5 miles from the business, and 19.7 per cent lived between 6-10 miles from the business.

- On average, respondents indicated that just 8.4 per cent of their workforce lived further than 10 miles from their business.

Table 3.10: Distance from business of workforce

Distance from business of workforce	Average proportion of workforce
Within one mile	29.2
Between 2-5 miles	42.7
Between 6-10 miles	19.7
Further than 10 miles	8.4

Base = 105

3.7 Business Turnover

Respondents were asked to comment on their annual turnover in order to assess the size of businesses within the canal corridor and to investigate the impact of the canal on business profitability and competitiveness. As is to be expected, a number of respondents were unwilling (or unable) to answer questions on turnover (13 in total); the percentages presented concern only those who provided an answer.

Figure 3.1 shows the annual business turnover of respondents. It is clear that:

- There are a large number of small businesses along the Kennet and Avon Canal. Some 25 per cent of respondents reported a turnover of less than £55,000 a year and a total of 55.5 per cent indicated that their annual turnover was under £200,000 a year.

- A total of six respondents (6.5 per cent) reported a turnover in excess of £1 million a year. Of these, two (2.2 per cent) indicated that their turnover exceeded £5 million a year.

It is interesting to consider how annual turnover varies between different types of business. In particular:

- Businesses specialising in boat building, repairs and sales were generally small, with 42.1 per cent reporting an annual turnover of less than £55,000 (as opposed to 25 per cent for the sample as a whole).

- Visitor attractions (both on- and off-waterway) reported a relatively higher business turnover. For example, some 62.5 per cent of waterway-based attractions recorded a turnover in excess of £200,000 per year, compared to 44.6 per cent of businesses in the sample as a whole.

- Businesses providing accommodation were generally very small, with 58.8 per cent recording a turnover under £55,000 a year (as opposed to 25 per cent for the sample as a whole).

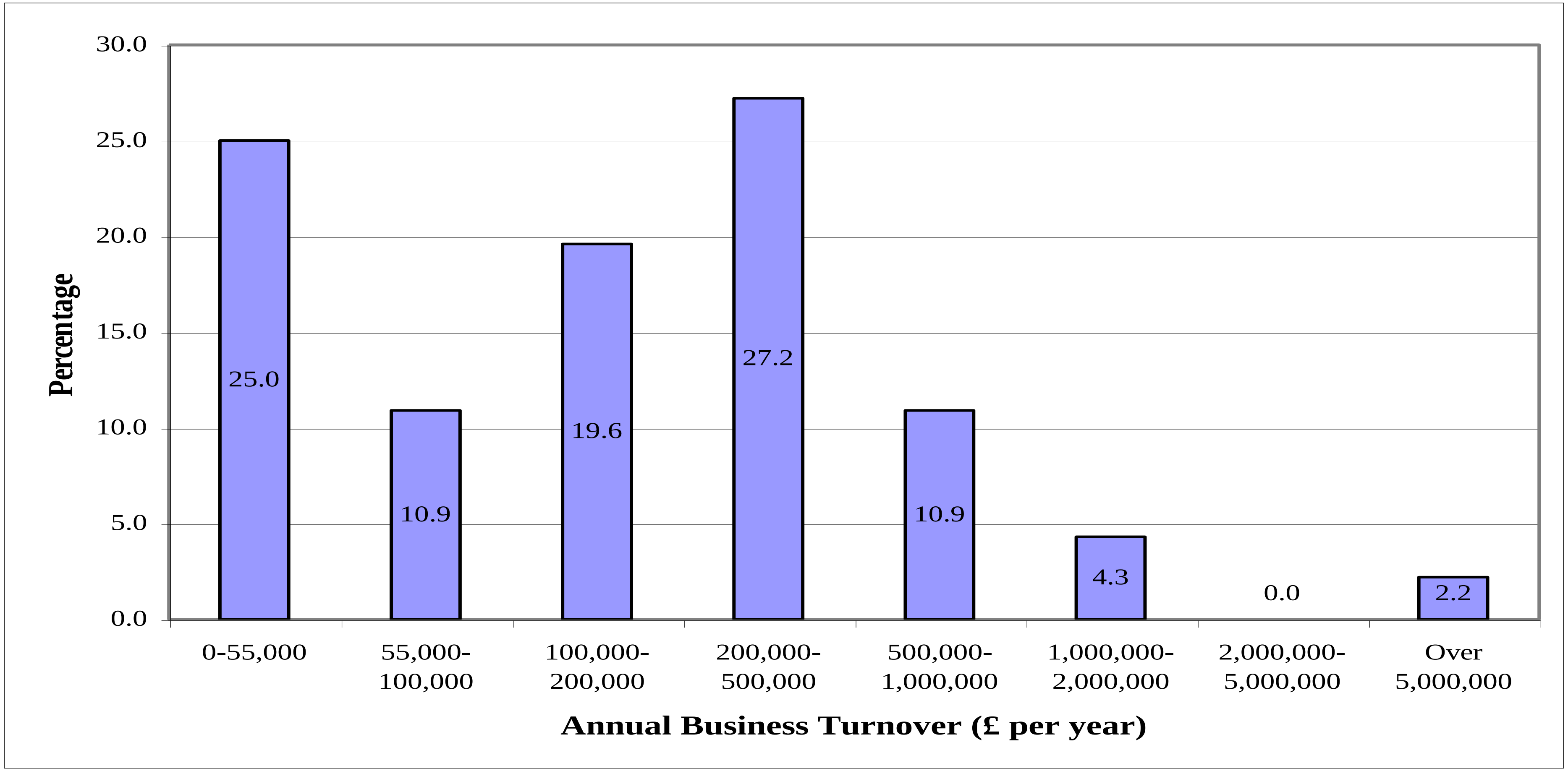
Respondents were asked to indicate how their turnover had changed since 1995 in order to assess whether the restoration of the canal had impacted on business income (see Table 3.11). Key findings are:

- The majority of businesses (81.3 per cent) reported that their turnover had increased since 1995.

- Some 14.3 per cent of respondents noted that their turnover had remained approximately constant since 1995.

- A very small minority of businesses (just 4.4 per cent) reported a decline in their annual turnover.

Figure 3.1: Annual business turnover of respondents



Base = 91

Table 3.11: Change in business turnover since 1995

Change	Number	%
Increased	74	81.3
Remained the same	13	14.3
Decreased	4	4.4

Base = 91

As above with change in employment levels, it is difficult to assess the extent to which turnover trends are a result of the restoration of the canal, or whether they reflect the generally buoyant economy of the area (or indeed whether there are other factors involved). In reality, business turnover is doubtless determined by a number of factors, of which the canal is just one element. Factors identified as significant by respondents are listed above under 'Employment Levels'.

It is interesting to consider whether turnover trends in recent years are affected by the nature of the business. To explore this, change in turnover was cross-tabulated against business type. Key findings are that:

- Businesses specialising in boat building, repairs and sales were slightly less likely to report an increase in turnover over the last three years (22.7 reported that their turnover had either remained stable or decreased as opposed to 18.7 for the sample as a whole).

- Tourist attractions were more likely to report an increase in turnover. 100 per cent of attractions based on the waterway reported that their annual turnover had increased since 1999 (compared to 81.3 of all businesses).

Moreover, it appears as though turnover is affected by the extent to which a business is dependent on the canal for its revenue. Businesses were asked to estimate the proportion of their income that was derived from the Kennet and Avon Canal (see 'the Role of the Kennet and Avon Canal' for further details). This was then cross-tabulated against turnover change:

- Those businesses reporting that either 75 per cent or 50 per cent of their income came from canal users were the most likely to report an increase in their turnover (100% of both groups).

- Businesses reporting that 25 per cent or 0 per cent of their income came from canal users were slightly less likely to report an increase in turnover (65.5 per cent and 82.9 per cent respectively, compared to 81.3 per cent for the sample as a whole).

- 90.9 per cent of businesses who reported that all of their income was derived from the Kennet and Avon Canal recorded an increase in turnover since 1999.

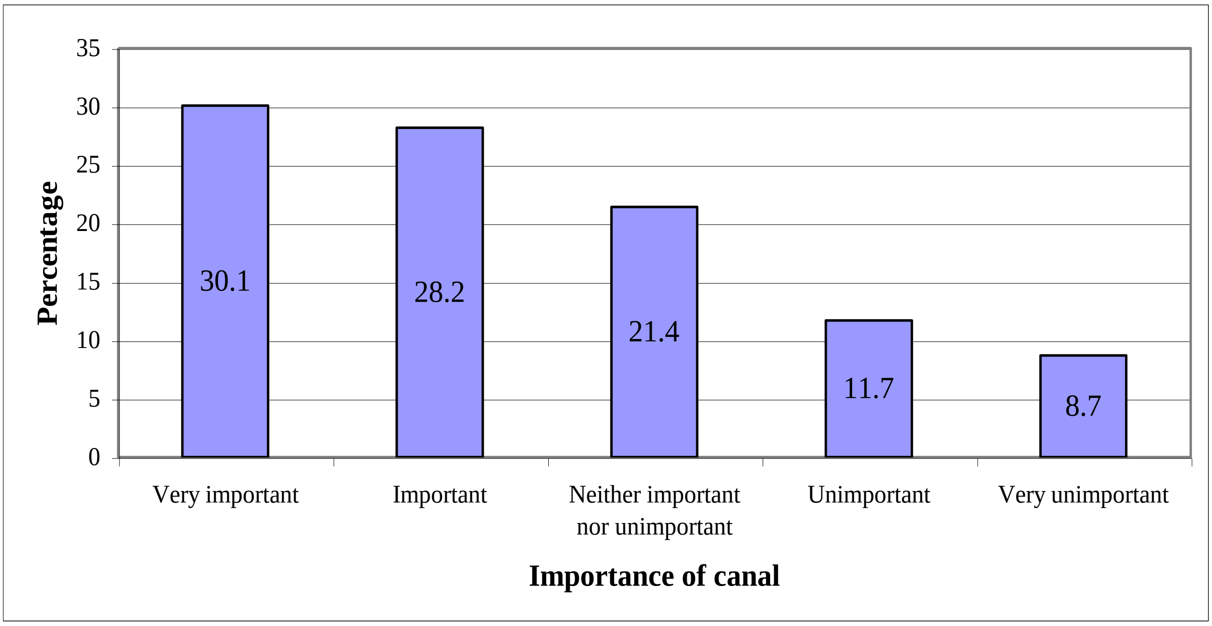
3.8 The Role of the Kennet and Avon Canal

Respondents were asked a series of questions designed to assess the role of the Kennet and Avon Canal, its importance to their business, and whether this had changed in recent years.

Figure 3.2 shows how important respondents felt the canal was to their business. This shows:

- The majority of respondents (58.3 per cent) rated the canal as either ‘very important’ or ‘important’. Some 30.1 per cent of businesses felt that the canal was ‘very important’.
- 21.4 per cent of respondents indicated that the canal was ‘neither important nor unimportant’
- A small minority (8.7 per cent) of businesses felt that the canal was ‘very unimportant’

Figure 3.2: The importance of the canal to respondents



Base = 103

It is interesting to consider whether businesses’ opinion of importance of the Kennet and Avon Canal is affected by their location. For example:

- Businesses based along the Eastern reaches of the canal (see above under ‘Background of Respondents’ for a definition) were more likely to rate the canal as ‘very important’ to their business (40.7 per cent of respondents as opposed to 30.1 per cent of the sample as a whole).
- Conversely, businesses based at the Western reaches of the canal were more likely to regard the canal as either ‘unimportant’ or ‘very unimportant’ (28.9 per cent of respondents as opposed to 20.4 per cent of the sample as a whole).

- A high proportion of businesses based in rural areas (again, see above under 'Background of Respondents' for a definition) rated the canal as either 'very important' or 'important' (68.8 per cent of respondents compared to 58.3 per cent of the sample as a whole).

- Urban-based businesses were less likely to see the canal as important, with 15.7 per cent rating the waterway as 'very unimportant' (compared to 8.7 per cent of all respondents).

In addition to the influence of location, it is interesting to explore whether different types of business see the canal as more important than others. For instance:

- Boating facilities and waterway-based attractions were much more likely to regard the canal as 'very important' (mentioned by 83.3 per cent and 84.6 per cent of respondents respectively as opposed to 30.1 per cent of the sample as a whole).

- Accommodation facilities and food shops were much less likely to regard the canal as important to their business. For example, 22.2 percent of food shops rated the canal as 'very unimportant' (compared to just 8.7 per cent in the sample as a whole). Zero accommodation facilities thought the canal was 'very important' to their business.

In order to explore the role of the canal in more detail, respondents were asked to indicate the proportion of their business revenue that comes from canal users. Table 3.12 shows the results:

- 13.9 per cent of businesses indicated that close to 100 per cent of their revenue comes from canal users. A further 5.9 per cent noted that close to 75 per cent is generated by the canal.

- A total of 40.6 per cent of respondents suggested that close to zero per cent of their income comes from canal users, and a further 31.7 per cent indicated a figure of 25 per cent. Given the results of the above section on the importance of the canal, this result is surprising given the high proportion of respondents who rated the canal as 'very important' or 'important' to their business.

Table 3.12: Percentage of business revenue from canal users

% of revenue (closest)	Number	%
100%	14	13.9
75%	6	5.9
50%	8	7.9
25%	32	31.7
0%	41	40.6

Base = 101

Figure 3.3 shows the types of canal user who respondents indicated were most important to their business[6]. Key findings are that:

[6] Respondents could indicate more than one user

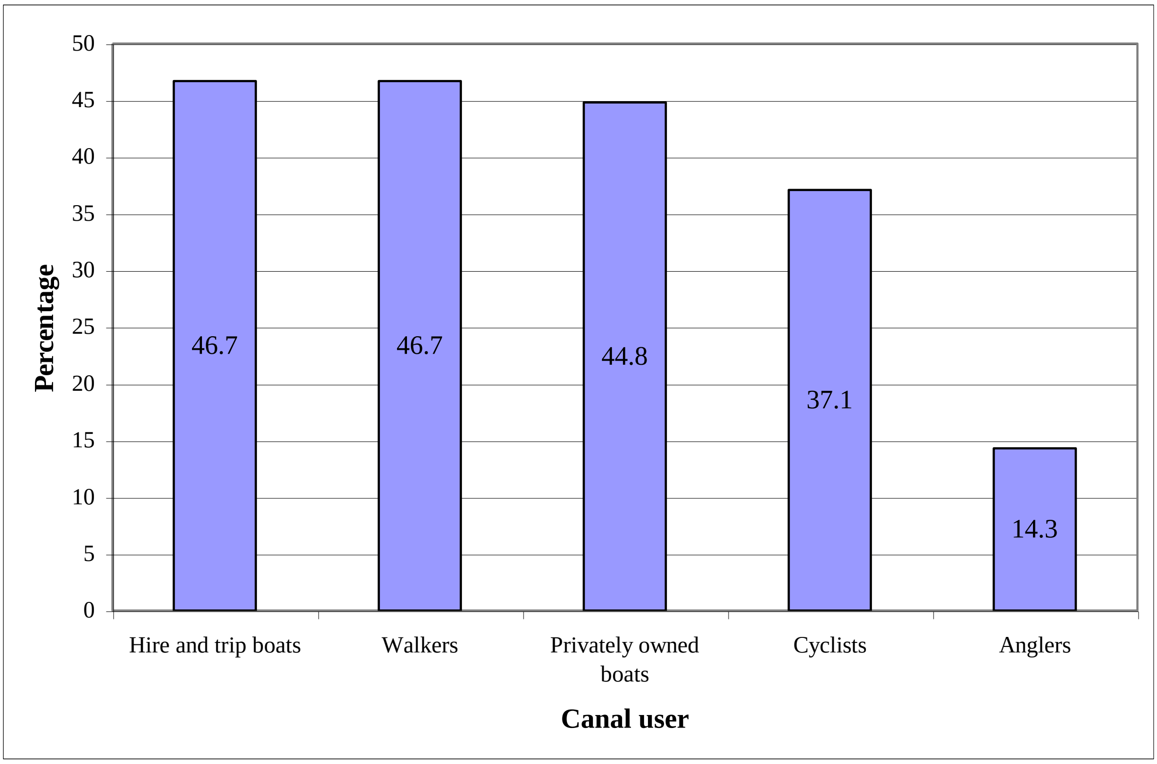
- Mentioned by 46.7 per cent of respondents each, hire/ trip boats and walkers were the two most important groups of canal users to businesses.

- Privately owned boats were important to 44.8 per cent of respondents

- Anglers were seen as the least important group of canal users, mentioned by just 14.3 per cent of respondents.

- A total of 20 businesses (19 per cent of all respondents) did not identify any canal users as important to their business.

Figure 3.3: Canal users who were important to respondents



Base = 105

In order to understand how the role of the canal has evolved, respondents were asked to assess how the importance of the canal to their business has changed over the last three years. Table 3.13 shows the results:

- The majority of businesses felt that there had been no change in the importance of the canal (73.7 per cent of respondents)

- Some 25.3 per cent of respondents felt that the canal had increased in importance over the past three years

Table 3.13: Change in canal importance over the last three years

Change in canal importance	Number	%
Become increasingly important	25	25.3
Remained the same	73	73.7
Become less important	1	1.0

Base = 99

Respondents were then asked to assess whether the importance of the canal to their businesses would change significantly over the next three years. Table 3.14 shows the results:

- Results are similar to those shown in Table 3.13 – the majority of businesses (70.3 per cent) expect no change in the importance of the canal

- Some 26.7 per cent of businesses anticipate that the canal will become more important to their business over the next three years.

Table 3.14: Change in canal importance over the next three years

Change in canal importance	Number	%
Become increasingly important	27	26.7
Remained the same	71	70.3
Become less important	3	3.0

Base = 101

It is interesting to consider whether the perceptions of the future importance of the canal were affected by business type. Results show that:

- Expectations were highest amongst tourist attractions (on- and off-waterway). For example, 42.9 per cent of off-waterway attractions expected the canal to have a more important role within their business over the next three years (as opposed to 26.7 per cent of the survey as a whole).

- The lowest expectations were held by accommodation facilities where just 17.6 per cent of respondents thought the importance of the canal would increase.

Finally, respondents were asked if they had any other comments about the role of the Kennet and Avon Canal within their business. Notable remarks included:

- The canal is a feature of natural beauty and attracts visitors to the area, particularly in Summer
- Guests from our hotel like to explore the countryside using the canal towpath
- We make and repair boats and the canal is crucial to our business
- Occasionally visitors to the canal stay at our hotel, but this is very rare
- Our shop is located some distance from the canal and users do not know that we are here
- The restoration of the canal has led to a dramatic increase in the number of visitors, particularly at sites like Caen Hill Locks

- The canal is essential. I would like to run hire boats all year but at present stoppages prevent me from doing so in Winter
- We own a traditional pub which is ideal for canal users
- The canal is an essential part of the visitor experience at Bath and should be better promoted
- The canal increases retail footfall in Newbury

3.9 The Restoration of the Kennet and Avon Canal

In the final section of the survey, respondents were asked to comment on the restoration of the Kennet and Avon Canal since 1995. Some 85.7 per cent of respondents were aware of the restoration programme. Not surprisingly, those businesses who were directly connected with the canal (boating facilities, waterway based attractions) were all aware of the restoration programme, whereas amongst those activities with a more tenuous link (eg accommodation), awareness was much lower.

Respondents were asked to assess whether the restoration programme has made a difference to their business. Table 3.15 shows the results:

- The majority of respondents (52 per cent) felt that the canal restoration programme had had ‘no effect’ on their business

- A further 33.3 per cent of respondents felt that the restoration has led to an ‘improvement’ in their business, and 13.7 per cent suggested there had been a ‘large improvement’. In total, therefore, 47 per cent of respondents felt the restoration had had a positive impact.

- Only one business felt that the restoration programme has had a negative impact

Table 3.15: Effect of the restoration programme on businesses

Effect of restoration	Number	%
Large improvement	14	13.7
Improvement	34	33.3
No effect	53	52.0
Worse	1	1.0

Base = 105

Perceptions of the impact of the canal restoration programme vary depending on the role that the waterway plays within a business. In particular:

- Waterway-based businesses (boating facilities, canal-based attractions) were more likely to suggest that the restoration programme has made an improvement. Some 39.1 per cent of boating facilities and 38.5 per cent of canal-based attractions indicated that the restoration had resulted in a ‘large improvement’ in their business (compared to 13.7 per cent of businesses in the sample as a whole).

- Accommodation facilities were the least likely type of business to indicate that the canal restoration programme had made an improvement (zero per cent felt that there had been a 'large improvement'). The impact was also felt to be minimal amongst pubs/ cafes/ restaurants and non-waterway based attractions (just 9.7 per cent and 7.7 per cent of businesses respectively felt that there had been a 'large improvement').

- Perceptions of the impact of the Kennet and Avon Canal restoration programme were also affected by the importance of the waterway to the respondent. Some 35.5 per cent of businesses for whom the canal was 'very important' reported that the restoration had made a 'large improvement' (compared to 13.7 per cent of businesses in the sample as a whole).

- Conversely, businesses for whom the canal was either 'unimportant' or 'very unimportant' were much less likely to feel that the restoration programme had had an impact. For example, 83.3 per cent of businesses for whom the canal was 'unimportant' and 100 per cent of businesses for whom the canal was 'very unimportant' felt that the restoration had had 'no effect' (compared to 52 per cent of businesses in the sample as a whole).

It is also interesting to note that perceptions of the canal restoration programme are influenced by geography. For example:

- Businesses based in the central stretches of the Kennet and Avon Canal (see above under 'Background of Respondents' for a definition) were more likely to conclude that the restoration programme had made a 'large improvement' (20.7 per cent of respondents compared to 13.7 per cent for the sample as a whole).

- Conversely, businesses located in the Western reaches of the canal were slightly more likely to indicate that the restoration had had 'no effect' (56.8 per cent as opposed to 52 per cent for the sample as a whole).

- Those businesses located in rural areas (again, see above under 'Background of Respondents' for a definition) were slightly more likely to conclude that the restoration programme had made a 'large improvement' (18.8 per cent of respondents compared to 13.7 per cent for the sample as a whole).

To conclude, respondents were asked to identify any further improvements that they would like to see carried out along the Kennet and Avon Canal. Notable suggestions included:

- Build more marinas, landings and free moorings
- Improved signage throughout the canal to point visitors towards facilities near the waterway
- Litter bins in car parks and along the towpath at certain heavily-used locations
- Public toilets kept clean and in working order
- Keep the canal well maintained and the towpath cleared of vegetation

- Keep the canal clear of non-licensed and unsightly boats
- More interpretation along the canal to identify sites of interest (eg archaeological, wildlife)
- Restrict the numbers of cyclists and impose speed restrictions
- Greater marketing and publicity for the canal to attract more visitors
- Develop the centre of Devizes with more tourism and leisure facilities
- Businesses to be able to advertise at mooring locations and key sites
- Improvements to locks at the Eastern reaches of the canal
- Develop links with the Wiltshire and Berkshire Canal
- Lighting at key sites
- Improved access to the towpath, particularly for the elderly and for prams
- Complete the gravelling of the towpath between Pewsey and Bradford-on-Avon
- More events along the canal to attract visitors
- Better facilities for boaters (toilets, showers, water stations)

3.10 Key Messages

It is now possible to draw together findings from the survey of tourism and leisure businesses in order to present conclusions about the role of the Kennet and Avon Canal and its impact on businesses. Key messages are that:

- The canal corridor is home to a large number of relatively small businesses with few employees and a small annual turnover. However, there is evidence that, over the past few years, the majority of these businesses have grown in size. For example, 46.6 per cent of respondents reported increases in staff numbers, and 81.3 per cent noted that their annual turnover had grown over the past few years.

- It is difficult to assess how important the canal has been within this pattern of business expansion along the waterway. Respondents attributed growth to such factors as: increased demand resulting from more visitors to the canal; diversification into new areas (including canal-related activities such as boat building and repair); and canalside housing developments resulting in more people moving to the area.

- Some 58.3 per cent of respondents described the canal as either ‘very important’ or ‘important’ to their business, suggesting that the waterway plays a significant role within the local tourism and leisure economy. This was not necessarily reflected in businesses’ estimations of the proportion of their revenue coming from the canal, however. For instance, 31.7 per cent of businesses estimated that close to 25 per cent of their revenue comes from the canal, and 40.6 per cent put the figure at close to zero.

- The relationship between the canal and local businesses varies depending on their nature and activity. Not surprisingly, businesses servicing the boating industry and waterway-based attractions value the canal to a greater degree than businesses for whom the canal is simply one of many sources of revenue. For example, 83.3 per cent of boating facilities and 84.6 per cent of waterway-based attractions considered the canal to be ‘very important', compared to 22.2 per cent of food shops, 15.6 per cent of pubs/ cafes/ restaurants and zero per cent of accommodation facilities.

- Hire and trip boats, walkers and privately owned boats were seen as the most important types of canal user.

- In terms of change over time, the importance of the canal to local tourism and leisure businesses seems to have remained fairly static. Some 73.7 per cent of respondents felt that the importance of the canal had remained the same over the last three years, and 70.3 per cent expected it to remain the same for the next three years. Interestingly, of all business types, off-waterway tourist attractions were the most positive about the future role of the canal, with 42.9 per cent anticipating that the canal would become increasingly important (as opposed to 26.7 per cent of the sample as a whole).

- Not surprisingly given the fact that most businesses were located within one mile of the canal, awareness of the restoration programme was high (85.7 per cent of respondents).

- Whilst most businesses were aware of the restoration programme, just over half (52 per cent) felt that it had had 'no effect'. A further third (33.3 per cent) felt that the restoration programme had resulted in an 'improvement', and 13.7 per cent noted a 'large improvement'. These findings are not entirely surprising given the nature and remit of the restoration programme. Much of the work was concentrated in certain locations, and aside from those businesses who needed the canal to be open throughout the year (i.e. boating facilities), a lot of the works would have had little additional impact (the canal was popular before the restoration even began).

- Respondents suggested a number of further improvements that they would like to see carried out, including: additional marinas and moorings; better facilities (toilets, litter bins, showers); improved signage (to the canal and also to nearby shops and facilities); better marketing of the canal; and continued maintenance of the towpath.

4.0 PROPERTY DEVELOPMENTS ALONG THE CANAL

4.1 Context and Scope

Thus far this report has only considered the economic impact of the Kennet and Avon Canal in terms of its tourism and leisure impacts. The nature of the waterway and the characteristics of the areas through which it passes mean that, in practice, this is likely to be the primary effect that the canal has on the local economy. However, research has shown that canals can also have a significant impact on property markets and act as a magnet for attracting development and enhancing the image of an area. Previous work by ECOTEC[7] has demonstrated that canals have the following property-related effects:

- They help to establish developer and investor confidence, a particularly significant impact in disadvantaged areas where such interest has traditionally been limited.

- Improvements to canal environments have been shown to bring forward the development of previously vacant or underused sites. Their linear form means that canals can also act as a valuable way in which to integrate discrete development schemes.

- Attractive development can enhance the vibrancy and vitality of an area. In particular, tourism and leisure schemes benefit strongly from the striking setting that a canal location provides.

- Evidence suggests that property developments at waterside locations command a premium value when compared to schemes based elsewhere and are also easier to sell/ let. This is particularly true of residential and office developments.

There are now numerous examples of waterside developments located throughout the UK, though it must be stressed that the property-related impact of canals is very much determined by the nature of the area through which they pass. Large scale canal-side regeneration schemes such as Brindley Place in Birmingham are a feature of major urban areas and it is important to be realistic about the types of development likely to occur along a predominantly rural canal such as the Kennet and Avon. The only significant urban areas along the route are Bath and Reading and, in both cases, there is competition in the form of large rivers (the Avon and Thames respectively). Elsewhere there are a number of medium-sized market towns (Newbury, Bradford-on-Avon, Devizes), but on the whole the canal passes through rural areas unlikely to attract developer interest – except in relation to housing which will often be problematic in planning policy terms. Moreover, there are very few brownfield sites along the route of the canal and planning restrictions mean that the amount of land available for redevelopment is limited.

[7] ECOTEC/ British Waterways (1996, 1998, 2001, 2002) 'The Economic Benefits of Waterway Development Schemes'

Nevertheless, there have been a number of development schemes along the canal corridor which have taken place since 1995. The aim of this section of the report is to investigate these in detail and summarise their associated economic impacts (in terms of investment secured and jobs created). It is important to consider how much of this development is actually dependent upon the canal and its restoration; in Reading, for example, the property market has been booming and it is likely that the redevelopment of canal-side sites would have taken place regardless of the restoration of the canal. Moreover, in a methodological sense it is necessary to separate out tourism and leisure property developments, the jobs associated with which have already been included within the demand model set out in Section 2.0. For example, jobs created as a result of the construction of a marina have already been incorporated in the estimations of the spend associated with boaters. Whilst the benefits associated with tourism and leisure property developments have, therefore, been omitted from the final estimation of the economic impact of the canal, they are still summarised below since it is important to review in detail what has actually happened alongside the waterway since 1995.

For the purposes of this report, the property-related impacts of the canal were estimated by means of the following activities:

- Development that has taken place along the canal since 1995 was mapped. Schemes were identified through a review of local plans, visits to key locations, and through consultations with the Waterway Manager for the Kennet and Avon Canal, other British Waterways staff, and representatives from the Local Authorities along the route.

- Details were obtained for each scheme on what development has taken place, how much has been spent, how many jobs have been created, and the role of the canal (and its restoration) in relation to the scheme. Information was drawn from local plans, strategies and documentary evidence plus consultation with British Waterways staff, representatives from each of the Local Authorities, developers, and businesses.

- Information was also collected regarding possible/likely future developments along the canal and the likely associated economic impacts. Schemes were identified though consultation with British Waterways staff, representatives from the Local Authorities, developers, and businesses.

The remainder of this section of the report is structured as follows:

- A review of property developments along the canal highlighted in the Coopers and Lybrand report;
- A summary of actual property developments since 1995;
- A review of future property development schemes along the canal;
- An assessment of the impact of the canal on property markets and investment levels;
- Key messages and conclusions.

4.2 Property Developments Identified by Coopers and Lybrand

In considering the economic impact of the Kennet and Avon Canal, Coopers and Lybrand assumed that the restoration programme would trigger a number of property developments along the waterway. These were identified through a review of the local planning framework and through consultations with Local Authorities, landowners, developers and property agents. Table 4.1 summarises their results and shows the expected associated economic impacts (private investment secured and jobs created), and the extent to which development was assumed to be dependent upon the restoration of the canal.

Table 4.1: Principal future canal-side development schemes identified by Coopers and Lybrand, 1995

<table>
<tr><th>Scheme and location</th><th>Outputs</th><th>Investment secured</th><th>Jobs created (FTEs)</th><th>Dependency on canal</th></tr>
<tr><td>Bath – industrial development at Brassmill Lane, Locksbrook Road and Upper Bristol Road</td><td>2 million sq ft of industrial space</td><td>£40 million</td><td>4,000</td><td>Low</td></tr>
<tr><td>Dundas Wharf leisure development</td><td>Visitor centre</td><td>Confidential</td><td>4</td><td>High</td></tr>
<tr><td>Staverton and Hilperton marinas</td><td>Development of marina, hotel and 120 units of housing</td><td>£10.2 million</td><td>45</td><td>High</td></tr>
<tr><td>Redevelopment of Bradford-on-Avon clay-pit</td><td>20,000 sq ft of leisure development with 50 car parking and 10 coach parking spaces</td><td>£1.76 million</td><td>80</td><td>High</td></tr>
<tr><td>Marinas at Lower Foxhangers, Devizes Barracks and Brimslade Farm</td><td>Construction of 3 marinas with combined capacity of 260 boats</td><td rowspan="6">£3 million in total</td><td rowspan="6">Total 65 FTEs</td><td rowspan="6">High</td></tr>
<tr><td>Pewsey Wharf</td><td>Golf course</td></tr>
<tr><td>Caen Hill</td><td>Development of a visitor centre</td></tr>
<tr><td>Great Bedwyn</td><td>Construction of 20,000 sq ft of leisure space</td></tr>
<tr><td>Honey Street Wharf</td><td>Function Restaurant</td></tr>
<tr><td>Horton</td><td>Pub refurbishment</td></tr>
<tr><td>Industrial development at Devizes Barracks and Pewsey Wharf</td><td>305,000 sq ft of light industrial space</td><td>£6 million</td><td>610</td><td>Medium</td></tr>
</table>

Housing development at Devizes Barracks and Pewsey Wharf	256 housing units	£12 million	0	Medium
Leisure development at Butts Lane, Highclose Farm, Frouds Lane Farm, Burghfield Bridge, and Green Lane	4 marinas with total capacity of 366 boats; 2 star hotel	£5.59 million	56	High
Industrial and commercial development at Colthrop	500,000 sq ft of industrial space; 100,000 sq ft of commercial space	£16 million	1,400	Medium
Housing development at Aldermaston Wharf and Burghfield Bridge	216 units of housing	£8.1 million	0	Medium
Housing at Highbridge Wharf, Kings Road, Watlington Street, Kenavon Drive East, Katesgrove Lane	189 units of housing	£6 million	0	Medium
Leisure development at Fobney Waterworks, the Oracle, Blakes Lock Museum, Rose Kiln marina	520,000 sq ft of leisure plus 150 boat marina	£37.4 million	2,012	Medium
Office development at Fobney Waterworks, the Oracle, County Lock and the Gas Board Site	700,000 sq ft of commercial space	£73 million	4,200	Low
Retail development at the Oracle	500,000 sq ft of retail space	£50 million	2,000	Low
Assorted car parking	Up to 850 spaces	£0.645 million	0	High
Gross total	**-**	**£269.7 million**	**14,472**	**-**
Additional[8] total	**-**	**£48.7 million**	**1,333**	**-**

Source: Coopers and Lybrand, 1995

As Table 4.1 shows, Coopers and Lybrand predicted that a significant amount of development would take place following the restoration of the canal, though no timescales were attached to the schemes identified. Key outputs were as follows:

- A total of £269.7 million of private sector investment secured, of which £48.7 could be directly attributed to the canal.
- Some 14,472 FTEs created, of which 1,333 could be attributed to the canal.
- A total of 2,403 construction person-years, of which 487 could be attributed to the canal.

[8] Number that could be attributed to the canal

A wide range of types of scheme were identified, though tourism and leisure developments (marinas, hotels, pubs etc.) were the most common. Given the attractive setting that a canal provides, it is not surprising that a number of housing schemes were highlighted, plus some office and industrial developments. The single biggest project identified along the canal was the Oracle Centre in Reading which was assumed to include a mixture of office, retail and leisure space.

4.3 Property-Related Developments along the Canal since 1995

One of the aims of this piece of research was to compare the potential canal-side development schemes identified by Coopers and Lybrand in 1995 with what has actually come forward so far. As noted above in Section 4.1, a mapping exercise was carried out in order to identify development that has taken place along the Kennet and Avon Canal since 1995. There follows a review of the results, presented geographically according to their position on the canal (running from West to East). An overall summary of development schemes is shown in Table 4.10 below.

As noted above in Section 4.1, the effects associated with canal-side development schemes have been determined through consultation with stakeholders including British Waterways, the Local Authorities, developers, and private sector entrepreneurs. The results of this exercise have then be used to calculate the overall economic impact, using the following assumptions:

- It is important to distinguish between the gross and net impacts of the development schemes under consideration. The difference relates to the extent to which the employment opportunities created are truly additional to the local area. In practice, assessing additionality is a somewhat subjective process and needs to be associated on a scheme-by-scheme basis to take account of local conditions etc. This exercise has involved consultation with stakeholders and the application of judgement based on our experience of conducting economic impact assessments. In the case of employment developments, the assessment has to be a two stage one involving consideration of whether the development itself is additional and, if this is the case, how far the activity which occupies the development is additional. This must be considered in both in gross terms (in the sense of whether the activity would have otherwise taken place elsewhere in the study area), and in net terms (taking account of displacement). Additionality assumptions are set out in Table 4.10 below.

- Jobs are expressed in terms of the number of full-time and part-time posts and, for the purposes of comparability, as full-time equivalents (FTEs). It is assumed that one FTE is equal to 2.5-3 part-time jobs, depending on the sector.

- It has been assumed that £60,000 of investment will create one construction-related temporary person year of employment (PYE), reflecting assumptions used in previous ECOTEC studies.

- In addition to jobs created directly as a result of canal-side development, it is necessary to consider further jobs created through the spending of the additional new businesses which came to or grow in the area as a result of the development (indirect), and through the expenditure of employee income in the local economy (induced). HM Treasury Guidance[9] suggests that a multiplier of 0.2 (a 20 per cent increase in jobs) be used to estimate the indirect and induced employment impact of development schemes. This figure has been used in previous ECOTEC studies relating to the economic impact of canal-side development.

4.3.1 Bath and Environs

The city of Bath forms the western terminus of the Kennet and Avon Canal and marks the point where the waterway meets the canalised River Avon. The juncture between the two waterways is located immediately to the south east of the city centre, close to Bath Spa railway station. From this point, the Kennet and Avon Canal climbs steeply up Bathwick Hill (through the Widcombe Flight of six locks) to Sydney Wharf. At Sydney Wharf, Bath Narrowboats operates a fleet of five holiday narrowboats on behalf of Anglo-Welsh Holidays, and also the ‘John Rennie’ (a 60 person capacity restaurant boat).

Canal-side development within Bath to date has been limited, and what has occurred has mainly been located at Sydney Wharf:

- Between 1995-97, McCarthy and Stone developers constructed 50 units of sheltered accommodation for the elderly on the site of a former garage.

- Between 1999-2000, accommodation for 150 students was constructed on the site of a former British Gas office building.

Unfortunately it has not been possible to determine the amount of investment associated with either of these developments. However, it is possible to estimate likely costs using standard industry assumptions and the results from previous ECOTEC studies into development investment costs. On the basis of £45-48,000 per unit for the sheltered accommodation and £20-22,000 per room for the student accommodation, investment at Sydney Wharf will have been in the region of £2-2.4 million and £3-3.3 million respectively.

To the west of Bath on the outskirts of the city, British Waterways have recently started leasing a marina and a caravan park. The site upon which the two facilities lie (which includes a pub) is owned by Bath and North East Somerset Council and leased to S.A. Brain & Co. (a brewery). The marina and caravan park are then sub-let. Prior to British Waterways’ intervention in September 2002, the two facilities were privately operated. The marina was constructed in the 1980s and has capacity for 50 boats whilst the caravan park dates from the 1970s and has space for 88 pitches (plus basic facilities). Since taking over the lease, British Waterways has spent some £50,000 refurbishing and improving the marina

[9] HM Treasury (EGRUP) (1995) ‘A Framework for the Evaluation of Regeneration Projects and Programmes’

and intends to carry out similar repairs to the caravan park in order to make it more attractive. A total of two people are employed full-time on site.

East of Bath the canal winds through the picturesque Avon Valley. Near Monkton Combe, the Grade I Listed Dundas Aqueduct carries the canal over the River Avon and marks the start of the Somerset Coal Canal. The Coal Canal was built in the early nineteenth century and is now largely derelict apart from a 1000 metre section adjoining the Kennet and Avon Canal and used for moorings. Between 1998-99 a visitor centre was built at the head of the restored section (Brassknocker Basin) by the Somerset Coal Canal Company. The site formerly contained a old barge which was used as a café/ restaurant. The visitor centre cost some £120,000 to build and was financed privately by the Coal Canal company (with a £40,000 grant from KONVER). At present the visitor centre houses a flat, a 60 person capacity café/ restaurant (the 'Angelfish'), and a number of facilities operating as Dundas Enterprises (bike/ boat hire, a small canal-related museum, and a shop/ chandlery). The café/ restaurant employs two people full-time and five part-time, Dundas Enterprises employs 2 full-time and three part-time, whilst one person is employed full-time by the Somerset Coal Canal Company to manage the facility.

The total economic impact associated with canal-side development in Bath and its environs is summarised in Table 4.2:

Table 4.2: Economic impact of canal-side development in Bath and environs

Site	Type	Investment (£)	Work undertaken	Outputs	Date
Sydney Wharf	Residential	2-2.4m	Construction of sheltered accommodation for the elderly	50 units 33-40 construction-related PYEs	1995-1997
Sydney Wharf	Residential	3-3.3m	Construction of student accommodation	150 rooms 50-55 construction-related PYEs	1999-2000
Bath Marina and caravan park	Leisure/ recreation	50,000	Upgrading of existing marina and caravan park	1 construction-related PYE 2 FTEs	2002-2003
Brass-knocker Basin	Leisure/ recreation	120,000	Construction of a visitor centre which houses a flat, a café/ restaurant, a shop/ chandlery, a small museum and a bike/ boat hire facility	4,500 sq ft of leisure/ recreation space 2 construction-related PYEs 5 f/t and 8 p/t jobs (7 FTEs)	1998-1999

4.3.2 Bradford-on-Avon

Bradford-on-Avon is a picturesque market town located between Bath and Trowbridge. The town is bisected by the River Avon, whilst the canal passes immediately to the south. Roughly ten minutes walk from the town centre lies Bradford-on-Avon Wharf, cut in two by a road bridge to form the upper and lower wharves. Prior to the commencement of the latest restoration programme (in 1990), derelict cottages at the Lower Wharf were converted into a café/ restaurant (the Lock Inn) which has expanded to include bike and canoe hire facilities. At the Upper Wharf the Kennet and Avon Canal Trust operates a small café/ shop staffed by volunteers and used to run a 53-seater trip boat. East of the wharf towards Hilperton is Bradford-on-Avon Marina, opened in 1989 with a capacity of 100 boats.

Canal-side development at Bradford-on-Avon since 1995 has been limited, in part because key sites such as the Lower Wharf had already been re-developed. The following can be identified:

- Sally Boats (a hire boat facility currently operating a fleet of 14 boats from Bradford-on-Avon Marina) is in the process of expanding to occupy a vacant building/ dry-dock and moorings at the Upper Wharf. The company plans to operate day boats from this site. At present, Sally Boats employs four people full-time plus a pool of 30 people on a casual basis. It is anticipated that the expansion will lead to more hours of work for the pool of casual labour.

- East of the Upper Wharf towards Hilperton, a five hectare former clay-pit which supplied puddling clay for lining the canal is being redeveloped for housing (St Lawrence Moorings). Between 2000-03 a total of 94 residential units were built by Wainhomes (78 two, three and four bed houses and flats plus 16 RSL units). The total cost of the scheme was between £4.75-5.25 million.

  At present the clay-pit site also contains a car park owned by British Waterways. British Waterways have submitted a planning application to build a 5,000 sq ft, two storey building containing offices and a restaurant/ tea room. There are also plans to develop a picnic area with a sanitary station.

The total economic impact associated with canal-side development in Bradford-on-Avon is summarised in Table 4.3:

Table 4.3: Economic impact of canal-side development in Bradford-on-Avon

Site	Type	Investment (£)	Work undertaken	Outputs	Date
Bradford-on-Avon Upper Wharf	Leisure/ recreation	Unknown	Expansion of Sally Boats to operate day boats from the Upper Wharf	Perhaps 1-2 FTEs created	2003
St Lawrence Moorings	Residential	4.75-5.25m	Construction of 94 mixed units	79-88 construction-related PYEs	2000-2003

4.3.3 Hilperton and Staverton

Hilperton is a village located to the east of Bradford-on-Avon and immediately to the north of Trowbridge. The canal passes to the north of Hilperton and to the south of the small village of Staverton. In the late 1980s and early 1990s around 100 homes and a 50 boat marina were built on a package of land adjacent to the canal to the south of Staverton. A further 400 houses were planned but the developer went bankrupt before this could commence. Furthermore, planning permission for the houses was dependent on the construction of a small hotel, though market conditions at the time were such that this was never built. In the mid 1990s, Persimmon Homes acquired the site and bought out British Waterways' small stake in the area (leaving only the marina and a small area of adjacent land in British Waterways' ownership). At present the site also houses Wessex Narrowboats who operate a fleet of 13 hire boats and two day boats from Staverton Marina, as well as providing a range of services to boaters. Wessex Narrowboats have been operating since 1983 and currently employ 21 staff (6 full-time and 15 part-time).

In 2002, Persimmon Homes commenced the development of 83 three and four bed detached houses at Staverton Marina. Construction will take place in two phases. The first – Broadlands – began in 2002 and is scheduled for completion in 2004. The second – Manor Fields – will run from 2003-04. The combined value of these two schemes is some £4 million. Planning permission also exists for the construction of a district centre at the site which will contain a pub, 4-5 shops, a doctors surgery, a small number of houses, and a car park.

The total economic impact associated with canal-side development in Staverton and Hilperton is summarised in Table 4.4:

Table 4.4: Economic impact of canal-side development in Staverton and Hilperton

Site	Type	Investment (£)	Work undertaken	Outputs	Date
Broadlands	Residential	2m	Construction of 42 three and four bed houses by Persimmon Homes	42 residential units 33 construction-related PYEs	2002-2004
Manor Fields	Residential	2m	Construction of 41 three and four bed houses by Persimmon Homes	41 residential units 33 construction-related PYEs	2003-2004

4.3.4 Devizes and Environs

The market town of Devizes is the administrative centre of Kennet District and is the largest settlement within the rural central stretches of the canal. The Kennet and Avon Canal passes through the town to the north of the main shopping area. Within Devizes there are two wharves: Town Wharf and, to the west, Lower Wharf. Of the two, Town Wharf is the larger and was developed around 20 years ago. At present the site contains the headquarters of the Kennet and Avon Canal Trust in an old Grade II Listed ex bonded warehouse, the Devizes Wharf Theatre which operates from an old warehouse, and a large car parking area. Town Wharf is separated from Lower Wharf by the Wadworth's Brewery and is accessible along the towpath. Lower Wharf contains a mixture of buildings of which the most significant is Assize Court, a Grade II* Listed former courthouse which has been vacant for a number of years. In the past, English Heritage has been approached about contributing to the restoration of the building, though this has not progressed.

To the west of Devizes the canal climbs 240 feet through a series of 29 locks in the space of just two miles. The centrepiece of this stretch is the Caen Hill flight of 16 locks: a Scheduled Ancient Monument voted one of the Seven Wonders of the Waterways. Caen Hill closed in 1951 and was the last element of the waterway restored prior to the re-opening of the canal in 1990 by HM The Queen. Further restoration works totalling some £1.5 million have been carried out since 1995. At present there is a small tea room staffed by volunteers operating from the lock flight, a British Waterways Depot, and a pay and display car park with capacity for 60 cars and three coaches. It is intended to expand the range of facilities at Caen Hill, details of which are summarised in Section 4.4.

Canal-side development in Devizes since 1995 has been very limited. Significant re-development is planned for the two wharves in the centre of the town and this is summarised in Section 4.4 below. Apart from this, key schemes have included:

- To the east of Devizes on the outskirts of the town, a 100 boat marina was built in 1995 on a greenfield site. The marina was developed by Devizes Marina Village Company and employs four people on a full-time basis.

- Between 1995-96, Hannick Homes constructed between 70-90 houses at Marina Meadows (a 13 acre greenfield site surrounding Devizes Marina). It has not been possible to ascertain the costs of this development, though using a figure of £45,000 per unit[10] suggests that investment costs of £3.5-4 million would have been likely.

The economic impact associated with these developments is summarised in Table 4.5.

[10] Reflecting the mixture of housing types at the site

Table 4.5: Economic impact of canal-side development in Devizes and environs

Site	Type	Investment (£)	Work undertaken	Outputs	Date
Devizes Marina	Leisure/ recreation	1-1.5m[11]	Construction of a 100 boat marina	100 berths 17-25 construction-related PYEs 4 FTEs	1995
Marina Meadows	Residential	3.5-4m	Construction of 70-90 homes	70-90 residential units 58-67 construction-related PYEs	1995-1996

4.3.5 Pewsey

The village of Pewsey is located some ten miles to the west of Devizes within the Long Pound (a 15 mile lock-free stretch of canal between Devizes and Wootton Rivers). The canal passes immediately to the north of Pewsey village where a small wharf area was built to load and unload goods. Developments at Pewsey Wharf since 1995 have involved:

- The conversion of a Grade II Listed former warehouse into a 28 person capacity café/ restaurant ('The Waterside') and a cottage. The conversion took place in 2001 and cost some £53,000, funded entirely from the private sector. The building is leased from British Waterways by the restaurant owner.

- Landscaping of the wharfside area and construction of a £32,000 car park (by British Waterways and concurrent with the warehouse conversion).

The economic impacts associated with the works at Pewsey Wharf are summarised in Table 4.6.

Table 4.6: Economic impact of canal-side development in Pewsey

Site	Type	Investment (£)	Work undertaken	Outputs	Date
The Waterfront at Pewsey Wharf	Leisure/ recreation	53,000	Conversion of a former warehouse into a pub/ restaurant and cottage	28 person restaurant, cottage 1 construction-related PYE 2 f/t jobs and 10 p/t jobs (5 FTEs)	2001
Car-parking	Infrastructure	32,000	Construction of car	0.5 construction-related	2001

[11] Based on British Waterways estimate

at Pewsey Wharf	park at Pewsey Wharf	PYEs

4.3.6 Newbury and Environs

Newbury is located some 20 miles to the west of Reading and is the economic and administrative centre of West Berkshire District. The Kennet and Avon Canal runs through the centre of the town and bisects the main shopping area. Canal-side development since 1995 has been concentrated at Newbury Wharf which is located within the town centre to the south of Victoria Park. Despite its strategic location, Newbury Wharf has been underdeveloped for many years. There are two historic buildings on-site including a former wharf building currently used by the Kennet and Avon Canal Trust, and a former granary now housing shops and a museum. In 1988 a development brief was prepared for the wharf and Parkway (land on the opposite side of the canal to the north of the wharf). Proposals included tourism and leisure facilities at the wharf (including a new canal basin surrounded by pubs, restaurants, and a multi-plex cinema), and retail/ office space at Parkway. Developer interest was limited, however, and nothing came of the proposals. In 1996 a bid was submitted to the HLF to construct a new canal basin at the wharf which was subsequently rejected.

The following developments have taken place alongside the canal in Newbury since 1995:

- Construction of a new library at Newbury Wharf between 1998-2000. The site was formerly a car park owned by Newbury Town Council which, in addition to the central position of the wharf, determined the choice of location. The library cost a total of £3.25 million to build and employs roughly 12 people full-time (with a further 18 on a part-time basis). Prior to the construction of this facility there was no library serving Newbury.

- Construction of a new Camp Hobson furniture store adjacent to the canal at Parkway opposite Newbury Wharf between 1996-97. The 0.5 acre site formerly housed a storage facility for Camp Hobson which was demolished and replaced by a new, 22,500 sq ft purpose-built store at a total cost of £2.5 million. The store employs a total of 30 full-time and 15 part-time staff, the majority of whom have been transferred from an existing department store located on Northbrook Street. It is thought that the new shop has created an additional five full-time jobs.

Much of the remainder of Newbury Wharf is currently taken up by car parking whilst Parkway to the north is also underused. Potential future development projects are discussed below in Section 4.4.

Approximately six miles to the east of Newbury a 110 boat capacity marina was built at Frouds Bridge in 1997. A range of services are provided at the marina including a sanitary block, electricity and pump-out. One person is employed full-time. The owner of Frouds

Bridge Marina is seeking to expand the facility to accommodate a further 50 boats, though its proximity to the SSSI River Kennet has resulted in objections from English Nature.

Table 4.7 summarises the economic impact associated with development since 1995 in Newbury and its environs:

Table 4.7: Economic impact of canal-side development in Newbury and its environs

Site	Type	Investment (£)	Work undertaken	Outputs	Date
Newbury library	Leisure/ recreation	3.25m	Construction of a new library	54 construction-related PYEs 12 f/t and 18 p/t jobs (18 FTEs)	1998-2000
Camp Hobson furniture store	Retail	2.5m	Construction of a new furniture store	22,000 sq ft of retail space 42 construction-related PYEs 30 f/t and 15 p/t jobs (35 FTEs)	1996-1997
Frouds Bridge Marina	Leisure/ recreation	1-1.5m	Construction of a 110 boat capacity marina	110 berths 17-25 construction-related PYEs 1 FTE	1997

4.3.7 Reading

The large town of Reading forms the eastern terminus of the Kennet and Avon Canal and marks the juncture of the waterway with the River Thames. Reading has benefited from its location within the booming economy of the M4 corridor and has attracted considerable amounts of business investment and commercial interest. The town's retail ranking has risen from 26th in 1998 to 8th in 2003 and property rents in the centre are similar to those in competing locations in the South East. Economic success has gone hand-in-hand with a booming housing market with recent increases in house prices far outstripping national growth rates (an increase of 96.6 per cent in Reading between 1998-2002 compared to 73.1 per cent in England and Wales). As a result of these competing pressures, demand for development land in Reading is very high. The Kennet and Avon Canal approaches Reading from the south west and passes through the town centre, largely making use of canalised sections of the River Kennet. The canal joins the River Thames to the east of the town centre after passing though Blake's Lock.

There has been a significant amount of development alongside the canal in Reading since 1995, reflecting general trends in the town. Key schemes are as follows:

- The single largest development project to have taken place in Reading since 1995 has been the construction of the mixed-use Oracle Centre. The Oracle is situated on a nine hectare site which straddles the canalised River Kennet immediately to the south of the main shopping area. Prior to the construction of the facility, the site was largely derelict and underused and contained a tram/ bus depot, a car park and a small retail collection point.

  Between 1997-2000, Hammerson UK developers spent a total of £250 million constructing 700,000 sq ft of shopping and leisure space based around a three level shopping mall with a 270 metre long riverside frontage. Key elements include:

  - two major anchor retail stores (Debenhams and House of Fraser)
  - 80 other retail units
  - a ten screen Warner Village Cinema
  - 24 riverside restaurants, cafes and bars
  - parking for 2,300 vehicles
  - an art gallery
  - a crèche
  - 35 residential units (flats)
  - environmental improvements including the creation of a waterside promenade with two pedestrian bridges over the river.

  The Oracle Centre has won a number of awards including the BCSC and International Council of Shopping Centres Award for 'Best New Shopping Centre 2001'.

  In its first year of opening the Oracle attracted 20 million people against a target of 11-12 million. It is estimated that the facility employs a total of 4,000 people of which approximately 40 per cent (1,600) work on a full-time basis. Hammerson UK stated that the majority of the retailers at the centre are additional to Reading, though it is likely that there will have been some displacement from other town centre locations (Debenhams and Boots, for example). Rentals achieved at the Oracle are in excess of those found elsewhere in Reading. For instance, Zone A prime pitches at the Oracle have been let at around £200 per sq ft which compares to between £160-195 per sq ft elsewhere in the town centre.

- To the east of the Oracle Centre, Laing Property (now Kier Build) developed a four storey office building at King's Wharf between 2001-02. The scheme cost approximately £5 million. A total of 26,000 sq ft has been provided which has been taken by the Valuation Office, the Insolvency Service, and BDO Stoy Hayward (an accountancy firm). Employment levels are as follows:

  - The Valuation Office employs some 50 people of whom approximately 15 work part-time. Prior to locating in King's Wharf, the Valuation Office was based elsewhere in Reading; it is believed that staff numbers have not increased as a result of the move.

- The Insolvency Service employs a total of 30 staff of whom around five work part-time. Prior to moving to King's Wharf, the Insolvency Service were based elsewhere in Reading; employment numbers have remained unchanged.

- BDO Stoy Hayward employ a total of 90 staff of whom around 20 work part-time. BDO were previously located in Reading but moved office in order to expand their operations.

- Immediately to the west of the Oracle Centre on the opposite side of Bridge Street, 89 one and two bed flats have been built alongside the canal at Bear Wharf. The 1.25 acre site formerly housed the office headquarters of Courage Brewery and has been developed in two stages. Firstly, Bewley Homes built 12 units at the westernmost end of the site between 2001-02. Secondly, Kings Oak are nearing completion of a further 77 units in a prestigious four storey warehouse-style development with penthouse suites overlooking the canal. Prices at Phase two of Bear Wharf have been considerably higher than elsewhere in Reading, ranging from £240,000 to over £500,000 for a penthouse suite. The average price for a flat in Reading was £155,000 in December 2002. It has not been possible to determine the cost of the Bear Wharf development scheme, though given the high quality of much of the build it is likely to have been significant. Using a figure of £85,000 per unit gives an investment cost of some £7.6 million which is consistent with similar canal-side schemes in central Birmingham.

- Queen's Wharf is a prominent residential development by City Lofts located within the centre of Reading to the east of the Oracle. The scheme involved the conversion of a 1960s five storey former Inland Revenue office block into 76 flats overlooking the River Kennet. Development took place between 2000-02. Using a figure of £80,000 per unit gives an estimated cost of £6.1 million.

- In 2002, construction of 80 residential units began at Capital Point by Kings Oak. Capital Point is located adjacent to the River Kennet on the southern edge of the city centre and formerly contained a goods yard. Development is scheduled for completion in 2004 and will include 60 one and two bed apartments plus 20 affordable homes. We have estimated the total cost of the scheme as between £3.5-4 million. Houses at Capital Point are being marketed at around £190-203,000 which is higher than the average price for a semi-detached house in Reading (£184,000 in December 2002).

- Hunter's Wharf is a residential development located opposite Capital Point on the eastern bank of the River Kennet. Hunter's Wharf was developed by Bewley Homes between 2001-03 at an estimated cost of £1.6 million. A total of 22 one and two bed apartments have been built.

- Blake's Quay is a residential development underway at a triangular site of land in central Reading where the River Kennet rejoins the Kennet and Avon Canal. Construction of 86 two and three bed apartments by Kings Oak started in 2002 and is expected to be completed by 2004. The site used to house a gas works and, as a result, suffered from considerable problems of contamination. As a result of the extra costs of land remediation, we have used a figure of £85,000 per unit when estimating the total cost of the scheme. This gives a figure of £7.3 million. Apartments at Blake's Quay are being marketed at between £200-245,000 which is considerably higher than the average price for a flat in Reading (£155,000 in December 2002).

- Bewley Homes are proposing to redevelop a parcel of land at 37 Kenavon Drive (located adjacent to Blake's Quay) for residential usage. Planning permission has recently been granted for 84 flats, though Bewley are looking to increase this to 113 flats. If approved, development would commence later this year (2003). Using a figure of £75,000 per unit (accepting that proposals are at an early stage) gives an estimated cost of between £6.3-8.5 million.

- A former brewery building located at Bear Wharf adjacent to the housing development was converted into a 150 person capacity canal-side seafood restaurant ('The Loch Fyne') in 2002. The restaurant employs a total of 50 people (40 full-time and ten part-time). The scheme cost a total of £610,000.

The economic impact of canal-side development in Reading is summarised in Table 4.9.

Table 4.9: Economic impact of canal-side development in Reading

Site	**Type**	**Investment (£)**	**Work undertaken**	**Outputs**	**Date**
The Oracle	Retail, leisure/ recreation, residential	250m	Construction of a shopping mall with riverside frontage incorporating shops, a cinema, restaurants, bars and flats	700,000 sq ft of retail and leisure space 1,600 f/t and 2,400 p/t jobs (2,400 FTEs) 4,167 construction-related PYEs	1997-2000
King's Wharf	Offices	5m	Construction of a 4 storey office building by John Laing providing 26,000 sq ft of space	26,000 sq ft of office space 83 construction-related PYEs 130 f/t and 40 p/t jobs (146 FTEs)	2001-2002
Bear Wharf	Residential	7.6m	Construction of 89 one and two bed flats by Bewley Homes and Kings Oak	89 residential units 127 construction-related PYEs	2001-2003
Queen's Wharf	Residential	6.1m	Conversion of building into 78	76 residential units	2000-2002

			apartments by City Lofts	102 construction-related PYEs	
Capital Point	Residential	3.5-4m	Construction of 60 one and two bed apartments and 20 affordable homes by Kings Oak	80 residential units 58-67 construction-related PYEs	2002-2004
Hunter's Wharf	Residential	1.6m	Construction of 22 two bed apartments by Bewley Homes	22 residential units 27 construction-related PYEs	2001-2003
Blake's Quay	Residential	7.3m	Construction of 86 two and three bed apartments by Kings Oak	86 residential units 122 construction-related PYEs	2002-2004
37 Kenavon Drive	Residential	6.3-8.5m	Construction of 84/113 flats by Bewley Homes	84/113 residential units 105-142	2003-
The Loch Fyne Restaurant	Recreation/ leisure	61,000	Conversion of derelict building into a 150 person capacity restaurant/ bar	10 construction-related PYEs 40 f/t and 10 p/t jobs (43 FTEs)	2002

4.3.8 Summary of the Economic Impact of Canal-Side Development

This section of the report has reviewed canal-side development that has taken place alongside the Kennet and Avon Canal since 1995. In each case the economic impact has been presented in terms of investment secured, jobs created, and other outputs. Table 4.10 provides a summary of these development projects and also sets out the additionality assumptions used in calculating employment impacts. Table 4.11 presents a summary of the economic impacts once indirect and induced effects of investment have been taken into account. Key findings are as follows:

- There have been a total of 23 canal-side development schemes along the Kennet and Avon Canal since 1995.

- These schemes have resulted in between £313.3-343.7 million of gross investment, and between £29.7-31.2 million of net investment. Adding in indirect and induced expenditure gives a total net investment figure of between £35.7-37.5 million.

- Between 5,221-5,729 temporary person years of employment have been created by canal-side development schemes since 1995. However, taking account of the fact that not all investment is considered additional, only 595-625 of these can be considered as additional.

- Canal-side development has created a total of 2,663 FTEs of which 273 FTEs can be considered as additional to the travel to work area. Including the impacts of indirect and induced spend produces a total employment figure of 328 FTEs.

- Residential developments accounted for the majority of investment along the canal corridor. Gross investment since 1995 totalled some £49.7-77.2 million. However, since much of this would have happened regardless of the presence of the canal given the state of the housing market in the area, net investment is likely to have been in the region of £3.3 million.

- Between £9-10.8 million of net investment along the canal was tourism and leisure related. In order to avoid double-counting with the results of Section 2.0, these impacts should be excluded from the overall analysis. This is discussed in more detail in Section 5.0.

- It is interesting to consider the extent to which development has taken place on brownfield land which is, of course, a key strand of government policy. Analysis shows that, of the 23 canal-side development schemes identified through this report, 18 (78 per cent) where brownfield sites. Brownfield developments attracted a total of £303.8-327.2 million of gross investment and created 2,658 gross jobs.

Table 4.10: Summary of property-related developments along the canal since 1995

Scheme	Location	Brownfield/ greenfield	Date	Work undertaken	Investment (£ million)		Construction employment (temporary PYEs)	Employment (FTEs)		Additionality assumption
					Gross	Net		Gross	Net	
Sydney Wharf	Bath	Brownfield	1995-1997	Construction of sheltered accommodation for the elderly (50 units)	2-2.4m	0	33-40	0	0	0% as residential development would have happened at any rate
Sydney Wharf	Bath	Brownfield	1999-2000	Construction of student accommodation (150 rooms)	3-3.3m	0	50-55	0	0	0% as residential development would have happened at any rate
Bath Marina and caravan park	Bath	Brownfield	2002-2003	Upgrading of existing marina and caravan park	0.05m	0	1	2	0	0% as jobs pre-dated British Waterways' investment
Brass-knocker Basin	Bath	Brownfield	1998-1999	Construction of a visitor centre which houses a café/ restaurant, a shop/ chandlery, a small museum and a bike/ boat hire facility	0.12m	0.06m	2	7	4	50% reflecting general levels in the tourism and leisure industry
Bradford-on-Avon Upper Wharf	Bradford-on-Avon	Brownfield	2003	Expansion of Sally Boats to operate day boats from the Upper Wharf	Unknown	Unknown	0	2	1	50% reflecting general levels in the tourism and leisure industry
St Lawrence Moorings	Bradford-on-Avon	Brownfield	2000-2003	Construction of 94 flats/ houses	4.75-5.25m	0	79-88	0	0	0% as residential development would have happened at any rate

Broadlands	Staverton	Greenfield	2002-2004	Construction of 42 homes	2m	0	33	0	0	0% as residential development would have happened at any rate
Manor Fields	Staverton	Greenfield	2003-2004	Construction of 41 homes	2m	0	33	0	0	0% as residential development would have happened at any rate
Devizes Marina	Devizes	Greenfield	1995	Construction of a 100 boat marina	1-1.5m	0.5-0.75m	17-25	4	2	50% reflecting general levels in the tourism and leisure industry
Marina Meadows	Devizes	Greenfield	1995-1996	Construction of 70-90 homes	3.5-4m	0	58-67	0	0	0% as residential development would have happened at any rate
The Waterfront and car park	Pewsey Wharf	Brownfield	2001	Conversion into a pub/ restaurant with car park	0.085m	0.02m	1	5	1	25% reflecting general levels in the restaurant industry
Newbury library	Newbury	Brownfield	1998-2000	Construction of a new library	3.25m	0	54	18	0	0% as public sector investment
Camp Hobson furniture store	Newbury	Brownfield	1996-1997	Construction of a new furniture store	2.5m	0.5m	42	35	7	20% as investment represented an expansion
Frouds Bridge Marina	Newbury	Greenfield	1997	Construction of a 110 boat capacity marina	1-1.5m	0.5-0.75m	17-25	1	1	50% reflecting general levels in the tourism and leisure industry
The Oracle	Reading	Brownfield	1997-2000	Construction of 700,000 sq ft of retail and leisure space plus car parking	250m	25m	4,167	2,400	240	10% reflecting general trends in the retail sector
King's Wharf	Reading	Brownfield	2001-2002	Construction of 26,000 sq ft of office space	5m	0.25m	83	146	7	5% since businesses re-located

Bear Wharf	Reading	Brownfield	2001-2003	Construction of 89 residential units	7.6m	1.5m	127	0	0	20% as canal is likely to have resulted in an intensification of development
Queen's Wharf	Reading	Brownfield	2000-2002	Conversion of building into 78 apartments	6.1m	1.2m	102	0	0	20% as canal is likely to have resulted in an intensification of development
Capital Point	Reading	Brownfield	2002-2004	Construction of 60 apartments	3.5-4m	0	58-67	0	0	0% as residential development would have happened at any rate
Hunter's Wharf	Reading	Brownfield	2001-2003	Construction of 22 apartments	1.6m	0	27	0	0	0% as residential development would have happened at any rate
Blake's Quay	Reading	Brownfield	2002-2004	Construction of 86 apartments	7.3m	0	122	0	0	0% as residential development would have happened at any rate
37 Kenavon Drive	Reading	Brownfield	2003-	Construction of 84/113 flats	6.3-8.5m	0	105-142	0	0	0% as residential development would have happened at any rate
The Loch Fyne Restaurant	Reading	Brownfield	2002	Conversion into a 150 person capacity restaurant/ bar	0.61m	0.2m	10	43	11	25% reflecting general levels in the restaurant industry
Total	**-**		**-**	**-**	**313.3-343.7m**	**29.7-31.2m**	**5,221-5,729**	**2,661**	**273**	**-**

Table 4.11: Direct, indirect and induced impact of canal-side development

	Investment (£ million)		Employment (FTEs)		Construction
Type	**Net direct**	**Total**[12]	**Net direct**	**Total**[11]	**employment**
Tourism and leisure	7.5-9	9-10.8	79	95	1,144-1,194
Retail	19.3	23.1	187	224	3,167
Residential	2.7	3.3	-	-	828-1,285
Office	0.3	0.3	7	9	83
Total	**29.7-31.2**	**35.7-37.5**	**273**	**328**	**5,221-5,729**

4.4 Future Property-Related Developments along the Canal

During the course of the research carried out for this section of the report, it emerged that there are a number of significant canal-side development schemes in the pipeline. Whilst these cannot be included within the current economic impact study (and in most cases they are at too early a stage to produce firm outputs), it is interesting to review what is proposed.

4.4.1 The Western Riverside at Bath

Western Riverside is the name attached to a 40 hectare area of land located either side of the River Avon immediately to the west of Bath city centre. Given its strategic location and size (approximately equal to the current city centre), Western Riverside is the most important development opportunity in Bath (and one of the most significant in the entire South West region). Historically, Western Riverside has been earmarked for re-development for many years though it is only now that the site is being taken forward. In part this is doubtless a result of its size, likely ground contamination problems, and a complex pattern of land ownership. The area currently comprises a mixture of vacant and occupied land, nearly all of which is in private ownership. Existing land uses include a waste transfer station, a household waste recycling centre, large site compounds of Transco and Wessex Water, a number of car showrooms, retail uses such as Sainsburys and Homebase, and several other small employment uses.

Bath and North East Somerset Council is in the process of preparing Supplementary Planning Guidance for the Western Riverside area. A draft document has been published[13] which, when approved, will be followed by a detailed masterplanning exercise. It is estimated that, over the next 15 years, some £1 billion will be invested in the Western Riverside area. Not surprisingly, a wide variety of land uses are envisaged:

- Around 1,500 new dwellings including a mixture of types (of which 30 per cent will be affordable)
- Office space including large facilities and smaller, incubation type establishments
- Significant amounts of retail space

[12] A multiplier of 1.2 has been used to estimate the direct, indirect and induced total
[13] BNES Council (March 2003) 'Western Riverside: Draft Supplementary Planning guidance'

- Leisure and recreation facilities such as bars and restaurants
- Community facilities

It is recognised that the River Avon needs to underpin the re-development of Western Riverside. Historically the river has been an underused resource in Bath, yet the Council intend that development should be oriented to take advantage of the riverside frontage, and that attractive waterside public spaces should be created. On a related note, a partnership between British Waterways, the Inland Waterways Association, the Environment Agency and Bath and North East Somerset Council has been formed in order to promote better usage of the River Avon throughout Bath.

4.4.2 Lower Foxhanger Marina

Lower Foxhanger Marina is a development opportunity located to the west of Devizes near the foot of the Caen Hill flight of locks. At present the site contains a small basin from which Foxhanger Canal Holidays operate a fleet of seven hire boats plus mooring space for 40 boats. Other facilities on-site include a B&B, holiday accommodation, and camping/ caravaning pitches. Outline planning permission has been granted for a 100 boat marina and British Waterways intend to relocate a waterway depot to the site from nearby Caen Hill (see Section 4.4.3). Feasibility work is being carried out with regard to expanding the scheme to include a restaurant, a number of holiday homes, and some small light industrial units.

4.4.3 Caen Hill

As summarised above in Section 4.3, the Caen Hill flight of locks is one the key sites along the Kennet and Avon Canal and a significant tourist attraction in its own right. The flight was re-opened in 1990 prior to the latest round of restoration, though since 1995 a further £1.5 million has been spent at the site on various works. At present it is recognised that there are a shortage of supporting visitor facilities at Caen Hill given its potential as a tourist attraction. To rectify this problem, British Waterways intend to move the waterway depot to nearby Lower Foxhangers Marina (see Section 4.4.2) in order to free up some 11 acres of land for redevelopment. Moreover, in 1995 British Waterways purchased some 60 acres of farmland adjacent to the lock flight (though which an access track currently passes) which could also be included as part of any development package. At present, plans for Caen Hill are still in the development phase, but the intention is to construct an interactive visitor centre with supporting arts and crafts facilities. Further options include corporate entertainment and conference facilities in order to take advantage of the attractive location.

4.4.4 Devizes Wharfside

As noted above in Section 4.3, there has been very little canal-side re-development at Devizes since 1995. The wharfside area was developed over 20 years ago and has a somewhat underused appearance not in keeping with the opportunities created by restoration of the canal (much of the area is taken up by car parking, for example).

In 1999, Kennet District Council invited potential developers to express an interest in the redevelopment of Devizes Wharf and the Northgate area (which adjoins the wharf to the south). Heritage Properties Limited were appointed as the preferred developer and, subsequently, an application was submitted to the HLF for funding towards a Wiltshire and Swindon County Records Office to be built at the wharf. It was estimated that the facility would create 39 FTEs and generate an additional 45,355 staying and days visits[14]. However, the application was rejected and plans for the record office were abandoned.

In March 2002, British Waterways were appointed by Kennet District Council and the South West Regional Development Agency to prepare a masterplan for the wharfside area (defined as Lower Wharf, Town Wharf and also the adjoining site of Devizes Community Hospital which is looking to relocate). A draft document has been prepared and will be submitted for public consultation in May 2003. Following approval the masterplan will be adopted as Supplementary Planning Guidance. At present, proposals include the following:

- At the Lower Wharf site it is intended to covert the vacant Assize Court building into either apartments or a bar/ restaurant. Other uses on site will be removed and a mixture of town houses and small business/ craft units built.

- At Town Wharf it is proposed to develop new housing, a café/ bar, shops, a 2-storey car park, a new canal-side pub, and an arts and crafts centre. The wharf will also include landscaped public space and canal moorings.

- If relocated, the site currently occupied by Devizes Community Hospital will be converted into a mixture of town houses and apartments.

It is clear that residential land uses make up the bulk of the redevelopment planned for Devizes wharfside. Consultees suggested that this reflects commercial realities given the buoyant housing market in Devizes, though also stressed that tourism and leisure uses will be an essential part of any development proposals. Indeed, there are plans to utilise the Kennet and Avon Canal at Devizes in a more imaginative manner. Possibilities include a new canal basin at the wharf area, plus a water taxi service to an out-of-town location (potentially Caen Hill Locks).

4.4.5 Newbury Wharf

As noted above in section 4.3, there have been a number of attempts over recent years to kick-start the regeneration of Newbury Wharf. Developments which have taken place since 1995 (the library and a new furniture store), have happened in a piecemeal manner with little consideration as to the overall appearance of the area. West Berkshire District Council acknowledges that the wharf area is currently under-utilised with much of the space taken up by car-parking. At present there are no firm plans for the redevelopment of the wharf, though

[14] Ian Parkin and Associates (December 2000) 'Devizes Visitor Study - Draft'

a recently published strategy for Newbury[15] highlighted the area as a key development opportunity. Consultees noted that there is scope for making greater use of the canal as an attraction which should form the centrepiece of the redeveloped wharf/ Parkway area. Part of this process might involve the construction of a new canal basin surrounded by leisure facilities such as bars and restaurants.

4.4.6 Aldermaston Wharf and Environs

Aldermaston Wharf is a small village located between Newbury and Reading. During the mid 1990s a number of houses were built in the village by Persimmon Homes, some of which back onto the canal. The proximity of Aldermaston Wharf to Reading makes it an ideal commuter base and, therefore, there is considerable pressure for housing development (though parts of the village fall within a 1000 year floodplain). West Berkshire District Council have identified a 5.4 hectare site close to the canal as suitable for housing development (60 units of which 18 must be affordable). At present no planning applications have been submitted for the site. Elsewhere in Aldermaston Wharf, a former British Waterways depot has been let to Reading Marine who operate a fleet of 18 hire boats as well as offering a number of boating-related services (repair, maintenance, boat-building etc.). Reading Marine have been based in Aldermaston Wharf since 1995; prior to that date they operated from the centre of Reading.

Immediately to the east of Aldermaston Wharf to the south of the canal is a 74 acre site owned by British Waterways and let to RMC Aggregates for gravel extraction. The license runs until 2006 after which British Waterways intend to redevelop the site to accommodate a 200 boat capacity marina plus visitor facilities including a fishing lake and a visitor centre. It is likely that Reading Marine will also relocate to this new site and their current location will be redeveloped for housing.

4.5 The Impact of the Canal on Property Markets

4.5.1 The Economic Context of the Canal Corridor

The Kennet and Avon Canal runs largely in parallel to the route taken by the M4 motorway between London and Bristol. This route takes the canal through an area of intense economic activity and commercial interest. This activity has lead to the emergence of a spatial pattern of high tech clusters of development. This clustering is geographically diverse; stretching over a large area and drawing its labour force from an even wider catchment. The focus of investment is in a range of sectors, such as telecomms, mobile communications, computer software etc. These sectors tend to be relatively new, with many of the industries only coming into existence over the last 15-20 years.

[15] West Berkshire Council (February 2003) 'Newbury 2025: A Vision for Newbury Town Centre'

Research from the DETR in 1999 (Planning for Clusters) concluded that the growth of such clustering is linked to the corridor's proximity to Heathrow, the motorway access to central London, and the pleasant living and working environment. This economic activity and favoured destination for investment has rippled out into the smaller towns and rural settlements within the vicinity of the motorway. Many of these locations fall directly within the Kennet and Avon Canal corridor leading to increased pressure on the residential property market. This has been further fuelled by a shortage in the supply of development land along the largely rural canal corridor and indigenous demand for redevelopment opportunities.

The DETR research concluded that while many areas have been the victim of their own success, planning policy has and continues to be a major influencing factor. The revision of Planning Policy Guidance Note 3 – Housing in 2000 is now beginning to have an effect on the residential market with a reduced supply of development land and a significant growth in land values on greenfield sites with planning permission. Within the canal corridor there are a major under-supply of residential development opportunities within the towns that the canal passes through. However, as the DETR research concluded, there is also a great need to ensure that the supply of land for housing and commercial development is maintained at an even level in order to try to minimise further the impact of congestion.

4.5.2 The Property Market along the Canal Corridor

This economic backdrop for the canal is an important and influencing factor when considering the property market and impact of restoring the Kennet and Avon Canal. In comparison to many of the canal projects elsewhere in the country, the majority of this corridor falls within an area of high economic activity. Therefore, most of the redevelopment opportunities have been previously explored to the maximum and many of the sites undeveloped fall outside the development boundaries of the towns and villages and therefore are extremely difficult to get through the planning system.

The canal corridor also experiences contrasting economies within the towns and cities it passes through. Bath, Reading and Newbury have clearly generated and maintain a momentum of commercial demand and interest due their size, accessibility, status and catchment etc. Elsewhere, this demand for commercial development cannot be maintained and market forces tend to focus on the residential led proposals.

Staverton Marina is a good example of the perceived secondary nature of some towns along the corridor. Conceptually the marina was promoted as a mixed-use canal based scheme. Phase one included a 50-boat marina, a small hotel and 100 residential units, with a second phase of 400 units and a district centre (including public house, 4-5 retail units and doctors surgery). The initial developer went bankrupt prior to the implementation of phase two. Persimmon Homes subsequently purchased the scheme, and the overall project is dependent on the hotel and district centre elements being implemented. However, over an 8-10 year period the scheme has failed to secure any end user for the commercial elements.

The example of Staverton Marina clearly substantiates the perception amongst developers and commercial investors that many of the areas the canal passes through are secondary locations. This perceived rural gap between Bath and Reading is illustrated by the experiences of Staverton reflected by low demand, poor access and a general rural remoteness. The outcome of such perceptions has compounded the problem, leading to a high proportion of opportunities within the canal corridor having a residential bias.

The restoration of the Kennet and Avon Canal will continue to provide significant improvements to land adjoining the canal and may provide new development opportunities as a result. There are a number of examples of canal-side related development which have already benefited from the restoration of the waterways.

Whilst the number of opportunities available along the corridor are limited for the reasons set out above, the benefit and value of the restoration should not be overlooked. A couple of examples illustrate thus point. Firstly, local surveyors Dreweatt Neate, based in Newbury, highlight the potential added value a water frontage can contribute to a site. Two-bedroom apartments in a development by Bewley at Temple Quay, Newbury, range from £200,000 to £295,00 for similar property with water frontage.

Secondly, in February 2002, GVA Grimley marketed a small (less than 1 acre) residential site at Sydney Wharf, Bath, for British Waterways. This exercise generated significant commercial interest due to its proximity to the canal, despite the site not having level or direct access to the canal. However, the ultimate value achieved for the site reflected the limited development opportunities in the city rather that being directly accountable to the linkage to the canal.

The benefits gained from restoration works to canals can be summarised as follows:

- Improved access by waterway and footpaths
- Active waterfront
- Potential to increase density alongside the waterfront
- Increase in value of adjoining property, which benefit from an active waterfront
- Improved viability of development sites adjoining active canal

Whilst there are many benefits and improvements to property adjoining restored canals, it should be noted – particularly in the case of the more rural locations along the Kennet and Avon Canal – that accessibility to road networks and local amenities is required in addition to improvements to the canal for additional value to be generated. Supporting infrastructure to development land is essential to enable maximisation of the development density, which is then reflected in the values generated.

4.5.3 Conclusions

It is our commercial view that the potential development opportunities along the canal corridor that come forward as part of the restoration project will generally tend have a residential bias. This will be due in part to the size, access, location and site specific constraints of individual opportunities. Canal-side sites may be too constrained for large scale commercial development and small scale residential development is often the only viable form of development. Secondly, as discussed in Section 4.3, the delivery of residential schemes in such locations will partly be fuelled by the continuing restrictions of the planning system and the under-supply of residential opportunities. Finally, there is a general market perception that waterside locations are better suited to residential schemes that create higher values for developers than commercial developments. The role of the waterside is often important in residential schemes because the reopening of the canal network can greatly improve the marketability of a development by creating a sense of place for future residents.

4.6 Key Messages

A number of key messages can be drawn from this review of property developments alongside the Kennet and Avon Canal since 1995:

- In 1995 Coopers and Lybrand carried out a review of development opportunities along the Kennet and Avon Canal. A range of schemes were identified including significant amounts of leisure and recreation and residential development. Smaller amounts of retail and industrial/ commercial development were also highlighted. In total it was assumed that canal-side development would result in £269.7 million of investment (of which £48.7 million could be attributed to the canal), 2,403 construction-related temporary person years of employment (487 attributed to the canal), and the creation of 14,472 FTEs (1,333 attributed to the canal). There were, however, no timescales attached to these forecasts making it difficult to evaluate progress.

- Our review of canal-side property development to date has identified a total of 23 schemes that have taken place since 1995. The total investment associated with these has been in the region of £313.3-343.7 million (of which £29.7-31.2 million has been additional to the area). This investment has created some 5,221-5,729 construction-related temporary person years of employment. Canal-side development schemes have created a total of 2,663 FTEs of which 273 have been additional to the area.

- Comparisons with the Coopers and Lybrand predictions must be treated with some caution, though it is interesting to consider differences in outputs. Gross investment since 1995 exceeded Coopers and Lybrand's predictions, though the net level is somewhat lower (it is difficult to establish the assumptions that they used to assess additionality). In general there has been a lot more residential development along the canal than Coopers and Lybrand expected, and many of the sites that they identified as suitable for industrial or commercial uses have changed to housing. For this reason (plus the difficulties in establishing the additionality assumptions used), the employment generated by the canal since 1995 is considerably lower than the level predicted by Coopers and Lybrand.

- There have been a number of tourism and leisure related development schemes alongside the canal since 1995. These include a couple of marinas and a visitor centre at Brassknocker Basin near Bath. However, it is noticeable that there have been few new schemes; much of what has happened since 1995 has involved expansion within existing facilities (diversification and expansion of boating activities, enlargements to pubs and restaurants etc.). The exception is the riverside redevelopment as part of the Oracle where restaurants and bars have been built as part of an attractively re-designed waterside area, though this is by far the single largest scheme along the length of the canal.

  These observations are supported by the results of the business survey set out in Section 3.0 which revealed that the majority of respondents pre-dated the latest round of restoration. Indeed, there is recognition amongst stakeholders that the tourism and leisure offer along the Kennet and Avon Canal needs to be improved. Aside from a number of pubs/ restaurants along the route, there are few major tourist attractions and insufficient opportunities for visitors to spend money. Even in key locations such as Bath, the canal has a comparatively low profile with very few waterside amenities.

  There are a number of schemes underway which will address this perceived gap, including major re-development proposals at Western Riverside in Bath, Devizes Wharfside, Caen Hill and, potentially, Newbury Wharf. In addition, Moreover, there is a perceived shortage in the supply of moorings (as part of this study, consultees reported waiting lists of up to two years in some cases). However, planning restrictions and the proximity of the River Kennet SSSI act as constraints to the development of marinas or the expansion of existing facilities (Frouds Bridge Marina, for example). In addition to the Lower Foxhangers scheme discussed above, there are plans for two 100 boat marinas at Burghfield Bridge, and another at Stanton St Bernard to the east of Devizes. These schemes are still at a very early stage, and may not come to fruition.

- Aside from the Oracle Centre and King's Wharf in Reading, there have been no commercial development schemes alongside the canal since 1995. This contrasts with the predictions of Coopers and Lybrand who identified opportunities for office and industrial development in Bath, Newbury, and Devizes (none of which have taken place). Stakeholders consulted as part of this study suggested that this is due to the state of the office and industrial markets, the lack of developer interest in the – largely rural – canal, planning restrictions, and competing pressures from other land uses. Nevertheless, the success of the Oracle Centre (which has exceeded its target number of visitors) shows that large commercial schemes with an attractive canal-side location can work. However, along the Kennet and Avon Canal there are no other comparable population centres (except for Bath), and aside from the Western Riverside, there are no major plans for commercial development in the near future.

- Comparison of the situation at present with that which was predicted by Coopers and Lybrand in 1995 shows the extent to which the canal corridor has been affected by the housing boom. This study has identified a total of 13 residential schemes which have developed alongside the canal since 1995. Of these, six have been located in Reading where a series of high-quality housing developments have taken place along the canalised

River Kennet. A number of these sites were originally intended for employment use but were re-allocated in response to the high level of demand from housing developers. Elsewhere along the canal there have been a number of medium-sized housing schemes (80-100 units) such as the St Lawrence Moorings in Bradford-on-Avon and Marina Meadows at Devizes. Two of the major future mixed-use development schemes identified as part of this study (Western Riverside and Devizes Wharfside) also contain a significant amount of housing which stakeholders identified as a necessary way in which to attract developer interest.

In most of these cases of residential development since 1995, the canal plays an important role. Most noticeably in Reading, the canal acts as a focus and a key selling point (particularly at Bear Wharf, Blake's Quay, and Queen's Wharf which contain prestigious apartments overlooking the waterway). In other cases (St Lawrence Moorings in Bradford-on-Avon, Broadlands and Manor Fields at Staverton) the canal plays less of a role, though developers reported that house prices are higher for waterside properties at each of these sites. Previous studies carried out by ECOTEC have shown that one of the key effects that canals have on residential schemes is to increase the quality and density of housing. It is difficult to assess whether this has happened along the Kennet and Avon Canal since it has proven hard to contact the developers responsible for residential schemes. Nevertheless, developments such as Bear Wharf and Queens Wharf in Reading are high density schemes typical of canal-side housing projects seen elsewhere in the country.

5.0 SUMMARY OF ECONOMIC IMPACT

5.1 Context and Scope

To recap, the aim of this piece of work was to assess the economic impact of the restoration of the Kennet and Avon Canal that has been underway since 1997. This has been addressed in a number of ways:

- Analysis of the tourism and leisure impacts of the canal through use of a demand model developed by British Waterways (Section 2.0)
- A survey of tourism and leisure businesses along the canal corridor in order to measure change since the beginning of the restoration programme and to build up a picture of the views of businesses (Section 3.0)
- A review of property-related developments along the canal and calculation of their associated economic impact (Section 4.0)
- Analysis of the impact of the canal on property markets through consultation with key local stakeholders (Section 4.0)

This section of the report aims to bring together the results from each of these elements of the study in order to provide a summary of the economic impacts of the canal restoration programme. This is expressed numerically in terms of jobs created and the value of the waterway economy, and also qualitatively through analysis of the views of key stakeholders (British Waterways, local businesses, Local Authorities, property market representatives).

The remainder of this section is structured as follows:

- Summary of the economic impacts of the canal restoration programme broken down into tourism and leisure impacts, property-related impacts, and construction-related impacts
- A review of the role of the canal in terms of its effects on the tourism and leisure economy and also on the local property market

5.2 Summary of Economic Impacts

Thus far this study has considered the economic impacts of the canal in terms of the tourism and leisure economy that it supports and also the property-related developments that have taken place alongside the waterway. There follows a review of findings from each of these stages, plus a summary of the total economic impact of the canal and its restoration programme.

5.2.1 Tourism and Leisure Impacts

The tourism and leisure impacts of the canal have been estimated through use of a demand model developed by British Waterways and also through a survey of businesses located along the waterway. Before presenting the results, it is worthwhile comparing the outputs of the two approaches through grossing-up the survey findings to provide total estimates of employment creation along the canal corridor. This exercise has been performed for boat-related businesses and for other tourism and leisure businesses (excluding shops). Part-time jobs have been converted to FTEs on the basis of three part-time jobs to one FTE, and a displacement factor of 80 per cent has been applied to all jobs associated with visitor spend to take account of the fact that a large proportion of business income would have come from sources not reliant upon the canal. It must be remembered that this is a somewhat crude exercise reliant upon the accuracy of the business database and the representativeness of the survey results. Nevertheless, the survey provides us with an opportunity to test and calibrate the results of the model.

Table 5.1 shows employment levels in 1995 and 2002 for the 105 businesses who responded to the survey. In 2002 there were a total of 195 FTEs at these businesses, an increase of some 72 (58.5 per cent) from 1995. Given the fact that the response rate was much higher for boat-related businesses than for other business types, it is not surprising that the majority of these FTEs (126) were associated with the boating industry.

Table 5.1: Employment results from the business survey (not grossed-up), 1995 and 2002

Employment by type		**1995**	**2002**	**Change 1995-2002 No.**	**%**
Gross visit-related spend	Part-time	246	374	128	52.0
	Full-time	166	221	55	33.1
	FTEs	248	346	98	39.5
Net visit-related spend[16]	Part-time	49	75	26	53.1
	Full-time	33	44	11	33.3
	FTEs	50	69	19	38.0
Net boat-related spend	Part-time	90	169	79	87.8
	Full-time	43	70	27	62.8
	FTEs	73	126	53	72.6
Net total	**Part-time**	**139**	**244**	**105**	**75.5**
	Full-time	**76**	**114**	**38**	**50.0**
	FTEs	**123**	**195**	**72**	**58.5**

Table 5.2 shows grossed-up employment levels along the canal based upon the results of the business survey. As noted above, this is a somewhat crude exercise and results should be treated with caution (particularly 1995 survey results), but it nevertheless provides an interesting comparison with the results of the demand model (also summarised in Table 5.2). Key points of note are that:

[16] After displacement assumed to be 80 per cent

- Estimates of the increase in FTEs associated with visit-related spend (after displacement) between 1995-2002 are very similar for the business survey and the demand model (90 and 85 new FTEs respectively).

- Estimates of the increase in FTEs associated with boat-related spend are slightly different. The business survey suggests a total of 70 new FTEs between 1995-2002, whereas the demand model suggests a lower figure of 30 new FTEs. A number of factors could account for this discrepancy (not least the problem of grossing-up survey results), though it is also likely that the business survey included employment increases which have not been a result of improvements to the Kennet and Avon Canal (such as at Hall's Auto Electrical, for example, which serves a wider market).

- Predictions concerning the total number of new FTEs created along the canal corridor between 1995-2002 also vary between the two methodologies. The business survey suggests that 160 FTEs have been created, whereas the demand model estimates that the figure is 115 FTEs.

Table 5.2: Summary of employment outputs (FTEs) for the business survey and demand model, 1995 and 2002

	Business survey (FTEs)		**Demand model (FTEs)**		**Change 1995-2002 (FTEs)**	
	1995	**2002**	**1995**	**2002**	**Survey**	**Model**
Gross visit-related spend	3,000	3,460	2,670	2,890	460	220
Net visit-related spend	600	690	577	662	90	85
Net boat-related spend	100	170	50	80	70	30
Net total	**700**	**860**	**627**	**742**	**160**	**115**

Accepting that there are some minor discrepancies, it is clear that the business survey and the demand model have produced broadly similar estimates of the level of employment generated by the canal restoration programme. Given the number of uncertainties involved, it is sensible to provide ranges as opposed to absolute numbers when summarising the tourism and leisure impacts of the canal. These are shown in Table 5.3 in terms of direct FTEs and also direct, indirect and induced FTEs. Key points of note are that:

- In 2002, the tourism and leisure economy along the Kennet and Avon canal was worth between £25-30 million p.a. This economy directly supported between 740-860 FTEs, and between 965-1,120 FTEs once indirect and induced effects have been taken into account.

- Since 1995, the number of FTEs directly supported by the tourism and leisure economy of the canal has grown by between 115-160. Once indirect and induced FTEs have been included, the figure rises to an increase of 150-210 FTEs. Whilst not all of these new jobs can be attributed to the canal restoration programme (a proportion would doubtless have been created anyway as a result of general growth in the tourism and leisure economy), Section 3.0 has shown that the majority of businesses feel that improvements to the waterway have had a positive effect on their fortunes (particularly boating-related businesses).

Table 5.3: Tourism and leisure FTEs along the canal corridor, 1995 and 2002

	Direct FTEs			Direct, indirect and induced[17] FTEs		
	1995	2002	Change 1995-2002	1995	2002	Change 1995-2002
Visit-related	575-600	660-690	85-90	750-780	860-900	110-120
Boat-related	50-100	80-170	30-70	65-130	105-220	40-90
Total	**625-700**	**740-860**	**115-160**	**815-910**	**965-1,120**	**150-210**

5.2.2 Property-Related Impacts

Section 4.0 reviewed the property-related developments that have taken place along the Kennet and Avon Canal since 1995. There have been a total of 23 schemes, resulting in £35.7-37.5 million of net investment and the creation of 328 net FTEs. However, many of these schemes are tourism and leisure related and will thus already have been considered as part of the visitor expenditure related elements of the demand model (see above). To avoid double-counting, therefore, these must be excluded from the analysis.

Table 5.4 summarises the economic impact of property-related developments that have taken place along the Kennet and Avon Canal since 1995 (excluding tourism and leisure developments). Key points of note are that:

- Net investment along the canal corridor since 1995 has totalled some £26.7 million. The majority of this (23.1 million) has been associated with the retail sector (primarily the Oracle Centre).

- A total of 233 FTEs have been created, again almost entirely associated with the Oracle Centre.

- Between 371-416 construction-related temporary person years of employment have been created by canal-side development investment.

Table 5.4: Non tourism and leisure property-related developments along the canal and their associated economic impact (direct, indirect and induced)

Type	Net investment (£m)	Net employment (FTEs)	Employment (temporary PYEs)
Retail	23.1	224	321
Residential	3.3	0	46
Office	0.3	9	4
Total	**26.7**	**233**	**371-416**

[17] Using a combined multiplier of 1.3

5.2.3 Construction-Related Impacts

The final consideration regards the construction-related impacts of the canal restoration process. Some £29.24 million was spent restoring the canal between 1995-2002. On the assumption that £100,000 of construction expenditure creates one temporary person year of employment[18], the restoration of the Kennet and Avon Canal would have supported some 292 temporary person years of employment.

5.2.4 Total Economic Impact

Table 5.5 summarises the total economic impact of the restoration of the Kennet and Avon Canal.

Table 5.5: Net impact of the canal restoration programme, 2003

Type	Investment (£m)	Employment (FTEs)	Employment (temporary PYEs)
Canal restoration	29.2	-	292
Tourism and leisure economy	26.68	965-1,120	-
Commercial development	26.7	233	371-416
Total	**82.6**	**1,198-1,353**	**663-708**

5.3 The Role of the Kennet and Avon Canal

In addition to quantifying the economic impact of the canal restoration programme, this study has also sought to explore the role of the canal in more qualitative terms. This process has involved discussions with businesses as part of the review of property developments along the canal, analysis of the results of the business survey, discussions with people working in the property market, and consultations with key stakeholders (British Waterways staff, representatives from the Local Authorities). From these exercises it has been possible to draw some conclusions about the role of the Kennet and Avon Canal which have been presented in terms of the local tourism and leisure economy and the property market.

5.3.1 The Tourism and Leisure Economy

The demand model developed by British Waterways shows that tourism and leisure usage of the canal has been growing over recent years. Boating in particular has increased, and the canal towpath is a valuable resource for informal visitors, cyclists and anglers. Indeed, the tourism and leisure potential of the Kennet and Avon Canal is considerable:

- The canal passes through Bath which has been designated by UNESCO as a World Heritage Site.

[18] A figure used in previous ECOTEC reports and also the Coopers and Lybrand report

- The canal and its environs are included within 24 Conservation Areas which have been designated by Local Authorities as possessing a 'special character'.

- The built heritage of the canal encompasses seven Scheduled Ancient Monuments, two Grade I Listed Buildings, four Grade II* Listed buildings and 188 Grade II Listed structures.

- The canal passes through two AONBs (Cotswolds and the North Wessex Downs).

- Much of the River Kennet is designated a Site of Special Scientific Interest (SSSI), while ten other SSSIs lie within the canal corridor.

Throughout the stakeholder consultations carried out for this study there was a consensus that there is no shortage of visitor demand along the canal. Many of the marinas surveyed reported a considerable waiting list for berths and other businesses identified heavy usage of the canal towpath at key locations.

Given the high level of visitor demand along the canal and the considerable potential for future growth, it is not surprising that a large and diverse tourism and leisure economy has developed over recent years. There are a large number of businesses which are wholly or largely reliant on the waterway such as marinas, hire/ trip boat facilities and boat servicing facilities. Within the canal corridor there are also supporting tourism and leisure facilities such as pubs/ restaurants, attractions and accommodation facilities which derive significant proportions of their income from waterway visitors. The presence of ACE shows that many of these businesses are organised and have developed a clear sense of a business community based around the Kennet and Avon Canal.

On the whole, the waterway economy appears to be healthy. The majority of businesses surveyed as part of this study had grown in terms of employment and turnover. Furthermore, some reported that they have diversified in response to emerging market opportunities brought about by the restoration programme (a number of hire/ trip boat companies had opened boat servicing and sales facilities, for example). There are several major boat operators along the canal (such as Bath Narrowboats, Sally Boats, Wessex Narrowboats, The Bruce Trust, Newbury Boats and Reading Marine) which have all reported employment growth over the past few years. Moreover, since 1995 a number of new canal-side tourism and leisure facilities have opened in response to perceived demand. At Pewsey Wharf, for example, a formerly derelict building has been converted into a café/ restaurant, whilst along the length of the canal several pubs have recently expanded to cater for increases in visitor numbers.

Consultation with businesses along the canal has shown that there is sufficient confidence in the future status of the waterway to encourage further investment and expansion. A number of marinas are keen to expand to meet perceived untapped demand for moorings, and several boating operations are adding to their fleets of hire/ trip boats. Businesses noted that one of the key reasons why they are confident that demand will remain strong is the fact that the future of the waterway is guaranteed. Prior to the restoration programme, sections of the canal were closed periodically and there was the threat that the waterway would eventually close altogether. Now that both of these problems have been resolved, businesses are more confident about investing resources in their operations and are also able to produce sounder business plans for obtaining finance.

Discussions with British Waterways staff and representatives from the Local Authorities have revealed that there is no shortage of enquiries about development opportunities; indeed, in some quarters there is a perception that further development needs to be checked so as not to endanger the natural environment of the canal. This issue has led to conflict in some areas as businesses would like to expand but cannot due to shortages of available land, planning restrictions or objections from organisations keen to preserve the canal in its present state (such as English Nature).

5.3.2 The Property Market

The role of the canal with regard to the property market must be considered within the wider context of the area through which the waterway passes. Research carried out by Grimley for this study shows that the property market along the Kennet and Avon Canal is affected to a significant degree by the effect of the economic boom along the M4 corridor which runs parallel to the waterway. Whilst, aside from at Reading, there has been no major commercial interest along the canal, there has been considerable demand from the housing market. Much of the area through which the Kennet and Avon Canal passes is rural with a number of attractive market towns along the route (such as Devizes and Bradford-on-Avon). Accessibility is generally good, making the area popular with commuters.

Within this context has been the restoration of the Kennet and Avon Canal. Research has shown that canals have a number of impacts on property markets, including:

- They help to establish developer and investor confidence, a particularly significant impact in disadvantaged areas where such interest has traditionally been limited.

- Improvements to canal environments have been shown to bring forward the development of previously vacant or underused sites. Their linear form means that canals can also act as a valuable way in which to integrate discrete development schemes.

- Attractive development can enhance the vibrancy and vitality of an area. In particular, tourism and leisure schemes benefit strongly from the striking setting that a canal location provides.

- Evidence suggests that property developments at waterside locations command a premium value when compared to schemes based elsewhere and are also easier to sell/ let. This is particularly true of residential and office developments.

This study has identified a number of property-related developments that have taken place along the canal since 1995. Very few of these have had an office or industrial focus; with the exception of Reading the perception amongst developers is that the settlements along the canal are very much secondary centres. There have been considerably more residential developments which have been located in both urban and semi-rural stretches of the waterway. To a large extent this reflects general trends in the housing market coupled with the pressures generated by economic growth along the M4 corridor. Furthermore, there is a shortage of development land in the area given that much of it is rural and subject to planning restrictions. Whilst it is likely, therefore, that most of the residential development since 1995 would have taken place without the restoration of the canal, there are clear examples where the waterway has either improved the quality of the scheme, or led to an intensification of development.

Tourism and leisure developments have been considered separately above and therefore do not need to be given further attention. Nevertheless, it is clear that there have been a number of such schemes along the canal since 1995, including marinas and pubs/ restaurants (particularly at the Oracle Centre in Reading). Of the canal-side developments identified for the near future, the majority are predominantly tourism and leisure related, in part reflecting a recognition that more could be done to exploit the commercial potential of the canal. The most significant of these is the Western Riverside development in Bath which is intended to make considerably better use of the waterway than has previously been the case in the city. In addition to tourism and leisure uses, this ambitious 10 year scheme will involve housing and office development. It is also notable that a number of smaller settlements along the canal have made use or plan to make use of the waterway and of the former wharves along the route. The market towns of Devizes and Newbury, for example, intend to redevelop their wharf areas to create attractive public spaces with tourism and leisure facilities. In this respect the canal provides a unique selling point that few other towns in the area are able to provide.

6.0 INDICATORS FOR FUTURE MONITORING

6.1 Introduction and Context

In addition to assessing the economic impact of the restoration programme, one of the aims of this study was to develop a set of indicators relating to the ‘health’ of the waterway economy which could be used for future monitoring, evaluation and management purposes. This set of indicators forms part of a wider information gathering exercise covering the environment, heritage, recreation and community aspects of the restored waterway.

The remainder of the section of the report is structured as follows:

- A review of the need for monitoring indicators
- A summary of objective-led monitoring
- A review of the process by which the indicators were selected including a review of national good practice
- A summary of the selected indicators
- Next steps

6.2 The Value of Monitoring Indicators

As noted above, one of the aims of this piece of research was to develop a set of indicators relating to the ‘health’ of the waterway economy. These indicators will be collected at regular intervals in order to inform the future management of the canal and to aid decision-making. Monitoring is an essential part of any publicly funded regeneration programme as it enables the project management team to regularly check progress and performance and to respond to any shortcomings identified. Ideally, therefore, the collection of monitoring information should be a regular exercise, though this must be balanced against practical considerations since it may be too time-consuming and expensive to frequently collect data. Monitoring differs from evaluation which is a more holistic process involving the measurement of overall impact against an agreed set of objectives, usually upon completion of the regeneration programme.

Key steps within the monitoring process are as follows:

- Establishment of a good quality baseline in order to benchmark change and enable a ‘before and after’ comparison;

- Clear definition of project objectives and targets – the improvements which the scheme is intended to bring about – in terms of outputs and outcomes;

- Establishment of a robust set of monitoring indicators relating to both project outputs and outcomes which can be collected on a regular basis; and,

- Effective monitoring and information collecting systems which collate the necessary data in a robust and presentable manner.

This element of the study concerns the third bullet point; the development of a set of monitoring indicators which can be used to measure economic conditions along the Kennet and Avon Canal over the next few years. Traditionally within regeneration projects there are two types of information that need to be collected for monitoring purposes:

- Bottom-up data (project outputs such as jobs created, training places created etc.)

- Top-down data (project outcomes and impacts such as changes in the unemployment rate, educational attainment)

It is, of course, important that these two types of information are linked; it is no use collecting top-down data which the project could not be expected to have influenced in any meaningful way (regional GDP, for example). For the purposes of this study, we have concentrated on the collection of outcome indicators since we are interested in the overall 'health' of the waterway economy as opposed to direct, micro effects of the canal restoration programme. Before these can be selected, however, we must first consider exactly what it is that we are seeking to monitor.

6.3 Objective-Led Monitoring

In selecting indicators for monitoring and decision making purposes it is important that they correspond to management objectives; it is no use selecting statistics which do not reflect policy goals. The original bid document for HLF funding[19] noted that one of the key objectives of the canal restoration programme was 'to raise the level of economic activity on the waterway to the point of financial sustainability'. The Public Transport and Visitor Management Strategy for the canal which was published in 1998[20] identified a need to 'maintain and increase the benefits to the local economy from the visitor use of the waterway'. Aside from this there are no formal objectives with regard to boosting the waterway economy of the Kennet and Avon Canal.

Consultation with representatives from British Waterways reveals that there is a desire to exploit the role of the waterway as a locational 'pull' factor in attracting investment. As this report has shown, the restored Kennet and Avon Canal has been successful in attracting commercial development along the waterway corridor which has had a beneficial impact on the local economy in terms of jobs created etc. However, the extent to which this intention has been translated into a formal management objective is unclear.

[19] The Kennet and Avon Canal Partnership (1995) 'Access to your Working Waterway Heritage: A Business Plan for the Heritage Lottery Fund'
[20] Geoff Broom Associates (1998) 'Kennet and Avon Waterway Public Transport and Visitor Management Strategy'

The final selection of monitoring indicators needs to be closely tied to the related objectives and targets for the waterway economy. Without objectives, indicator sets become rudderless – the direction that we want the indicator to move can become a source of confusion and the 'message' contained in the indicator gets lost. It is no use, for example, measuring changes in the level of boating usage of the canal if there is no clear management objective as to whether the number of boaters should be going up or down. This process is, of course, reliant on the balance between the various uses of the canal; unrestrained increased boating usage may be economically beneficial but could have a detrimental effect on the natural environment of the canal.

6.4 Selecting the Monitoring Indicators

6.4.1 The Economic Benefits of Canals

In the absence of any formalised management objectives for the canal, we have instead profiled the types of economic benefit associated with waterways, based on a recent piece of work published by the Association of Inland Navigation Authorities [21]. These benefits can then be used to select indicators which measure how well the waterway economy is performing. Benefits associated with canals include:

- Income generation through businesses using the waterway:
    - tourism and leisure
    - property development
    - telecom and other communication links
    - water sales
    - freight
- Value added by businesses occupying waterside land and buildings
- Waterways as a locational factor for businesses
- Employment supported by waterway-based businesses
- Employment supported by businesses occupying waterside land and property
- Training opportunities offered through waterway projects
- Opportunities for new business development
- Local sourcing of products and services by waterway management
- Freight transportation by water

[21] Association of Inland Navigation Authorities (AINA), 2003 'Demonstrating the value of waterways. A good practice guide to the appraisal of restoration and regeneration projects'

It is not possible or desirable to develop indicators for each of these types of benefit. Some are not directly relevant to the Kennet and Avon Canal or its restoration (freight transportation, training opportunities), whilst others cannot easily be quantitatively measured (opportunities for new business development, for example). On the basis of these considerations, we have selected the following benefits associated with the waterway:

- Income and employment generation through canal-related tourism and leisure activity
- The impact of the canal on property markets and development
- The direct impact of waterway management and operation

6.4.2 Selecting Indicators

In selecting monitoring indicator, it is helpful to draw on examples of good practice from other regeneration programmes. The New Deal for Communities Programme[22] has sought to raise awareness of the importance of developing good baseline and monitoring indicators:

"…Good baseline information helps you plan effectively. It helps you monitor and evaluate your progress over time, giving you the opportunity to make adjustments if circumstance change, or if elements are not working. A baseline is not a one off exercise, but by updating through the lifetime of [the programme] it can be a dynamic agent for informing change…"

In a similar vein, the mid term evaluation of the Single Regeneration Budget Challenge Fund[23] concludes that:

"…The evidence from the fieldwork points quite clearly to some partnerships not having in place information and management systems that allow for effective and timely decisions to be made. This is very important in a world that is changing rapidly. There is often too much attention to ensuring that output returns are delivered rather than addressing the bigger questions of how key outcome indicators might be changing in relation to baseline evidence…"

In practical terms, it is helpful to set out what might be considered to be the key feature of an effective monitoring indicator. A recent national evaluation of the Single Regeneration Budget Challenge Fund[24] concluded that indicators should:

- Measure conditions in a locality prior to the commencement of a policy, programme or policy intervention, ideally benchmarked against a wider local, sub regional, regional or national average;

[22] DETR (2000) 'New Deal for Communities: Gathering Baseline Information'
[23] Department of Land Economy at Cambridge University on behalf of the DTLR (2002) 'Lessons and Evaluation Evidence from Ten Regeneration Budget Case Studies: Mid Term Report'
[24] University of Cambridge in association with Cambridge Policy Consultants on behalf of the DETR (1999) 'Evaluation of the Single Regeneration Budget Challenge Fund: An Examination of Baseline Issues'

- Measure the same conditions in a locality upon completion of a policy, programme or policy intervention in order to explore change over time in a consistent and robust manner;
- Be updateable on a regular basis;
- Measure outcomes as opposed to outputs; and,
- Be quantitative in nature where possible, even where it is qualitative change that is being assessed.

In order to be effective, baseline indicators therefore have to pass two tests:

- Are they appropriate?
- Are they measurable?

Monitoring indicators must relate to the strategic objectives against which they are seeming to assess the impact and progress. The assessment of measurability breaks down into a further three tests that need to be passed:

- Can the indicators be collected at an appropriate geographical scale?
- Can they be easily obtained?
- Can they be easily updated at time intervals which are useful for the purposes of the management of the canal?

For indicators to be effective they therefore need to fit the task in hand. They also need to meet certain criteria. These handily form the acronym AIMS[25] and are as follows:

- **Action Oriented** – does the indicator provoke debate? Can achievable targets be set? Will it lead to actions?
- **Important** – does the indicator describe an important asset of the issue clearly and unambiguously? It is relevant to the locality?
- **Measurable** – can the indicator be collected? Is it updateable? Is the source clear?
- **Simple** – will most people be able to understand the indicator?

It is important to remember that it is not necessary to have a large number of monitoring indicators in order to monitor progress; it is better to have a small number of good indicators.

[25] Groundwork, the New Economics Foundation and Barclays plc (2000) 'Prove It! Measuring the Effect of Neighbourhood Renewal on Local People'

Moreover, the collection of large amounts of monitoring information is an onerous and time-consuming exercise for which resources may not be available.

Finally, in terms of sources of information regarding the monitoring indicators, national research[26] has highlighted the following:

- National sources – a range of data sources although datasets are rarely available below ward level
- Original research – an obvious way top obtain information is to carry out original research such as surveys
- Piggybacking – using surveys and research undertaken by other organisations
- Partner sharing – sharing of resources and expertise between partners to maximise the benefit of existing knowledge

6.4.3 Monitoring Indicators for the Kennet and Avon Canal

Bearing in mind these lessons, there now follows a summary of the selected monitoring indicators. These are shown in Table 6.1, presented underneath the three headings set out in Section 6.4.1.

Table 6.1: Monitoring Indicators for the Kennet and Avon Canal

Indicator	Source	Comments
Income and employment generation through canal-related tourism and leisure activity		
Usage of the canal by user (private and commercial boat licenses, lockage data, pedestrian counts and surveys)	BW	Should be easy to obtain on a regular basis, though would require the installation of pedestrian counters
Number of tourism and leisure businesses along the canal corridor by type	Yell.com and ACE	Easy and relatively inexpensive to put together on an annual basis which will allow individual businesses to be 'tracked' to establish survival rates. Combination of Yell.com and ACE, as used in this study, should prove sufficient
Employment levels by type in wards along the canal corridor	Annual Business Inquiry	Easy to collect and will provide a useful contextual indicator as to the health of the tourism and leisure economy in the area
Index of business performance over the last 12 months	Business survey	Would require annual survey of tourism and leisure businesses to determine how their turnover had changed over the last 12 months

[26] Roger Tym and partners with the University of the West of England on behalf of the DETR (1999) 'Local Evaluation for Regeneration Partnerships: Good Practice Guide'

Index of business confidence over the next 12 months	Business survey	As above, except concerns anticipated change over the next 12 months
Reliance of tourism and leisure businesses on the canal	Business survey	Requires businesses to make an assessment of the importance of the canal, and could be broken down by type of user
The impact of the canal on property markets and development		
Ha of land developed adjacent to the canal by type	Survey of Councils	Requires periodic survey of Councils to determine types and scale of development. Could be followed up by more detailed survey work to determine investment and job creation
Canal-side planning applications by type	Survey of Councils	Requires periodic survey of Councils
The direct impact of waterway management and operation		
% BW staff living within districts adjacent to the canal	BW	Should be available from BW records
% BW maintenance expenditure going to businesses within districts adjacent to the canal	BW	Should be available from BW records

The collection of these monitoring indicators should be undertaken on an annual basis. Though relatively small, there will be small cost involved associated with the time taken to collect the information and need for a survey of tourism and leisure businesses along the canal. As this study proved, his exercise need not be expensive and can be completed relatively easily within the space of around a month. There will also be a need to consult with the local authorities regarding commercial development along the canal, and possibly with end-users/ developers for more detailed information. The setting up of an informal relationship with a representative from the planning team at each of the Councils would make this exercise easier to complete.

6.5 Next steps

This section of the report has identified a set of indicators which can be used to monitor the health of the waterway economy along the Kennet and Avon Canal. The restoration programme has now been completed and so the task over the next few years will be to monitor and assess the overall impact of the project. Many of the economic benefits that the canal will bring to the area will take time to be realised, though it must be remembered that the waterway economy is well-established. Nevertheless, measuring and monitoring these benefits is an important process which will help with the effective management of the waterway and the promotion of its wider impact.

The next steps within the monitoring process are as follows:

- Agree the contents of this report with all of the partners involved with the management and operation of the waterway;

- Establish a monitoring and evaluation forum to champion the development of a commonly agreed monitoring framework;

- Agree a set of management objectives for the waterway economy of the Kennet and Avon Canal. These could be based on the three topic headings used above (tourism and leisure economy, commercial development, and waterway management), but the key is to ensure that quantitative, measurable and achievable targets are set in each case;

- Decide on a set of monitoring indicators which measure these management objectives. A proposed set is shown above in Table 6.1, though it will be necessary to ensure that all partners are in agreement;

- Collect information for each of these indicators and present as a baseline. Most of the information has been collected as part of this report and will simply need to be presented in a different format;

- Set up a data collection and recording system within British Waterways in order to ensure that the necessary information is assembled on a regular basis. As discussed above, most of the indicators are readily available, though a number require particular actions. Specifically, these include the installation of pedestrian counters, additional towpath surveys at strategic locations (such as Bath, Reading and one or two rural locations), and the carrying out of an annual tourism and leisure survey similar to that conducted as part of this study (though on a much smaller scale).

- Agree on a management response mechanism with regard to each of the indicators. This needs to be based on the targets established for the management objectives and will involve an agreed set of actions should an indicator not behave in the manner anticipated.

- After a suitable amount of time has elapsed, a full evaluation into the waterway's economic impact will need to be carried out using the methodology contained within this study. The regular collection of monitoring information (particularly with regard to canal-side commercial development) will improve the quality of available data and thus the robustness of the evaluation process. This would be assisted by new research into the leakages and indirect/ induced multiplier impacts which exist within the waterway tourism leisure sector in order to refine the demand model used in this study.

ANNEX A

DATABASE OF CANAL-SIDE TOURISM AND LEISURE BUSINESSES

ANNEX B

BUSINESS QUESTIONNAIRE

Self-completion questionnaire for businesses along the Kennet and Avon Canal

ECOTEC Research and Consulting Ltd has been commissioned by **British Waterways** to undertake a survey of businesses along the Kennet and Avon Canal. The aim of this survey is to investigate the role of the canal within the local economy and to understand how it affects businesses. In addition, British Waterways have been undertaking major restoration works along the canal since 1995 and are keen to understand the views of businesses on what difference the restoration has made to local companies.

We would be very grateful if you could spare 5-10 minutes to complete this form and **return it in the FREEPOST envelope provided.** Your answers will be treated in the strictest confidence and will not be passed on to any third party.

Contact details

Name...
Name of business..
Contact Telephone number..
Address..
Postcode..

Background

1. Which of these best describes your business?

   Sole trader/ independent
   Charity
   Partnership
   Private Limited Company
   Public Limited Company
   Other (Please Specify) ....

2. Which of the following best describes your activity? (you may tick more than one)

   Boating facility / repair / sales
   Waterway based tourism & leisure attraction
   Tourism & leisure attraction not based on the waterway
   Pub / café / restaurant
   Accommodation
   Food and drink shop / grocers
   Other (Please Specify) ....

3. How long has your business been in operation? (   ) years, (   ) months

4. How long has your business been at its current location? (   ) years, (   ) months

5. How important was the canal in your choice of location?

   Very important ❚
   Important ❚
   Neither important nor unimportant ❚
   Unimportant ❚
   Very unimportant ❚

6. If your business has moved within the last seven years, where were you previously located?

   Town ....
   County ....

Employment

7. How many people were employed at your business in 1995? (or in your first year of operation if your business was established more recently)
   ……. Part-time
   ……. Full-time

8. And how many people do you employ now?
   ……. Part-time
   ……. Full-time

9. Please can you estimate the proportion of your workforce who live:

   Within one mile of your business (   )%
   Between 2-5 miles from your business (   )%
   Between 6-10 miles from your business (   )%
   Further than 10 miles from your business (   )%

Turnover

10. Which of the following bands does your annual business turnover fall within?

    Under £55,000 per year ❚
    £55,000 to £100,000 per year ❚
    £100,000 to £200,000 per year ❚
    £200,00 to £500,000 per year ❚
    £500,000 to £1,000,000 per year ❚
    £1,000,000 to £2,000,000 per year ❚

£2,000,000 to £5,000,000 per year
Over £5,000,000 per year

11. How has your turnover changed since 1995?

Increased
Remained the same
Decreased

12. Are there any major factors that have affected your turnover and/ or staff numbers in the last three years?

....
....
....

The role of the Kennet and Avon Canal

13. How important would you say the Kennet and Avon Canal is to your business?

Very important
Important
Neither important nor unimportant
Unimportant
Very unimportant

14. Can you estimate how much of your business revenue comes from people who are visiting or using the canal? Please tick the closest

100%
75%
50%
25%
0%

15. Which of these types of canal user is important to your business?

Privately owned boats
Hire and trip boats
Anglers
Cyclists
Walkers

16. How has the importance of the canal to your business changed over the past three years?

Become increasingly important

Remained the same ❚
Become less important ❚

17. How do you anticipate that the importance of the canal to your business will change over the next three years?

Become increasingly important ❚
Remain the same ❚
Become less important ❚

18. Please add any further comments you would like to make about the role of the Kennet and Avon Canal in your business:

....
....
....
....
....

The restoration of the Kennet and Avon Canal

19. There have been a number of restoration works along the Kennet and Avon Canal since 1995 with the aim of making the waterway fully navigable. Are you aware of these projects?

Yes ❚
No ❚

20. What difference has this restoration work made to your business?

Large improvement ❚
Improvement ❚
No effect ❚
Worse ❚
Much worse ❚

21. Is there anything further you would like to see happen along the canal in the future?

....
....
....
....

Thank you for your assistance. Please return your completed questionnaire in the FREEPOST envelope provided. If you have any questions, please contact James Leather at ECOTEC on 0121 616 3640.

ANNEX C

TOURISM AND LEISURE DEMAND MODEL SPREADSHEETS (1995 AND 2002)