Why restore inland waterways?

A. J. M. Harrison and R. D. Sutton

Most of the inland waterways of England and Wales were constructed in the late eighteenth century for the carriage of freight; they are now mainly used for amenity and recreational purposes. This paper describes the campaign of the Inland Waterways Association to retain the waterways threatened with closure and to promote the restoration of those that were derelict. Although the income generated from waterways covers only about half the operational and maintenance costs, substantial economic benefits to the adjacent communities justify their restoration. The paper discusses the restoration process and the changing sources of funding. With the advent of The Waterways Trust and British Waterways' new freedom to engage in restoration work, the pace of waterway restoration has quickened. Whether that pace will be maintained now depends largely on the availability of funding.

1. INTRODUCTION: OUR WATERWAY HERITAGE

Inland waterways comprise canals, rivers and drains which are, or were, navigable by deep-draught craft. They were built by a large number of independent companies to a variety of gauges. In the vicinity of large rivers and estuaries a 'broad' gauge was generally adopted, based on the craft of each region. Typical broad gauges are: in North-West England, 72 ft x 14 ft (based on Mersey flats); North-East 54 ft x 14 ft (Keels); South-East 86 ft x 12 ft 6 in (Thames barges); and, in the South-West, 72 ft x 15 ft 6 in (Trows). There are many local variations of broad gauges, including those resulting from reconstruction of waterways to accommodate different craft. In contrast, in 1769 the then five main companies agreed a standard 'narrow' canal craft gauge; most narrow waterways accommodate craft of 72 ft length and 7 ft beam.

Most of the interconnected system of inland waterways in England and Wales was constructed between 1757 and 1845, peaking during the so-called 'canal mania' of 1791-1795 when enabling acts were passed for 48 navigations. Following the construction of railways in the mid to late 1800s the canals, with a few exceptions such as the Grand Union Canal and the North-East waterways, were unable to withstand the commercial competition. Many canals were taken over by railways between 1850 and 1900 and were deliberately rendered uncompetitive or subjected to inadequate maintenance (although they could not generally be closed without a Parliamentary Act of abandonment). There was a plethora of closures in the period from 1900 to 1950.

Most remaining commercial waterways were nationalised, with the railways (which owned most of the others), in 1947. The Docks and Inland Waterways Executive of the British Transport Commission (BTC), which managed them, was faced with declining freight income. It limited maintenance and closed several canals. Table 1 sets out the lengths of waterways in England and Wales managed by various navigation authorities.
2. BRITISH WATERWAYS

British Waterways Board (BW) took over the responsibilities of the BTC at the start of 1963. The existing slow growth of leisure traffic accelerated. The 1968 Transport Act was a turning point, dividing BW's navigations into 'commercial', 'cruiseway' (with standards based on craft using them in 1968) and the 'remainder' (to be dealt with in the most economic way consistent with the requirements for public health and the preservation of amenity and safety). The 1968 Act also gave BW powers to provide amenity and recreational facilities and allowed local authorities to subscribe towards the cost of improving waterways for amenity use.

The stability provided by BW and the 'cruiseways' encouraged growth of leisure use, especially holiday boat hire. The 1500 craft licences issued by BW in 1950 increased to 18025 by 1972 and to 23 880 in 1998. On BW waterways in 1998 250000 people hired boats, 2 million trips were made by boaters and their passengers and 10 million people visited. For comparison there were about 36000 craft licensed on Environment Agency waterways and the Norfolk Broads in 1994.

3. THE INLAND WATERWAYS ASSOCIATION

The Inland Waterways Association (IWA), founded in 1946, is a voluntary body and registered charity which campaigns for the conservation, use, maintenance, restoration and development of the inland waterways of the British Isles for their fullest recreational and commercial purposes. In its early years IWA was largely concerned to oppose the abandonment of many waterways on which commercial traffic had ceased. It felt that Britain should retain its unique waterways system which, given adequate maintenance, had great recreational potential and, in some cases, a useful commercial role. Though not entirely successful in preventing abandonment, it is largely thanks to IWA that a network of inland waterways still exists, connecting places as widely dispersed as Bristol, Guildford, Ripon, Ely and Lancaster.

4. GROWTH OF WATERWAY RESTORATION

By the early 1950s IWA was campaigning for restoration of waterways, as well as campaigning against closures. The first successful restoration was the Llangollen Canal, closed (along with another 175 miles of canal) by the 1944 L M S Railway Act but

<table>
<thead>
<tr>
<th>Authority</th>
<th>Navigable: km</th>
<th>Unnavigable: km</th>
<th>Total: km</th>
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</thead>
<tbody>
<tr>
<td>British Waterways</td>
<td>2615</td>
<td>320</td>
<td>2935</td>
</tr>
<tr>
<td>Environment Agency (EA)</td>
<td>875</td>
<td>120</td>
<td>995</td>
</tr>
<tr>
<td>Broads Authority</td>
<td>160</td>
<td>40</td>
<td>200</td>
</tr>
<tr>
<td>Other Navigation Authority</td>
<td>1335</td>
<td>410</td>
<td>1745</td>
</tr>
<tr>
<td>Unmanaged</td>
<td>105</td>
<td>2095</td>
<td>2200</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5090</strong></td>
<td><strong>2985</strong></td>
<td><strong>8075</strong></td>
</tr>
</tbody>
</table>

Table 1. Inland Waterways of England and Wales 2000

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maintained as a channel for water supply and formally reopened by BTC in 1955. The Lower Avon Navigation Trust was formed in 1950 to restore the Warwickshire Avon up to Evesham and work was completed in 1962. The Southern Stratford Canal, becoming disused during World War II but not formally closed, was restored in 1964 following a campaign against closure which led to its purchase by the National Trust and repair (mostly by volunteers). The Upper Avon was restored to Stratford in 1974, allowing a ring cruise to be made. The reopening of the Ashton and Peak Forest Canals in 1974 restored the 'Cheshire Ring'. The Kennet and Avon Canal was reopened, but to inadequate standards, in 1990. The Basingstoke Canal was reopened in 1991. Other restorations completed between 1975 and 1995 include the Stourbridge 'Sixteen' Locks, Well Creek and the Forty Foot River (on the Middle Level waterways), the River Great Ouse, the Bridgwater and Taunton Canal and the Caldon Canal (Fig. 1).

During this period many voluntary organisations were established to promote the restoration and development of particular waterways. Sixty-four of these, with 27200 members, are now corporate members of IWA. The Association promotes restoration by lobbying Government and other bodies, and by responding to consultations on issues concerned with restoration. It assists all viable restoration schemes by offering political influence and the campaigning support of 17000 members, voluntary workers for physical restoration, financial support to schemes, professional advice on planning, engineering, legal, financial and other issues, and an insurance scheme that almost all restoration bodies have joined. IWA's branch and region organisation and conferences provide fora for waterway users and restoration bodies. IWA also supports the Northern Canals Association and the Southern Canals Association, independent informal bodies that provide regular informal meetings at restoration sites where those involved in restoration can discuss issues of mutual concern and review progress.
In the 1980s, canal restoration (especially the Basingstoke, Rochdale and Huddersfield Canals) received considerable Government support, mostly in the form of 'job-creation' grants from Manpower Services Commission to train unemployed (especially young) people in new skills by restoring structures and building lock gates. Towards the end of the 1980s, as job creation schemes were wound down, Derelict Land Grants were provided for restorations in deprived areas (especially Rochdale and Huddersfield) as the benefits of restoration as a catalyst for urban and rural regeneration came to be appreciated. The Millennium Lottery Commission provided very significant funding from 1996 for waterway restoration, notably the Rochdale Canal, Huddersfield Canal, the Ribble Link and, in Scotland, the Millennium Link (Forth and Clyde and Union Canals). The Heritage Lottery Fund made a large grant to improve the safety of the infrastructure and to conserve the built and natural environment of the previously restored Kennet and Avon Canal.

The Inland Waterways Amenity Advisory Council (IWAAC) was created under the 1968 Transport Act to advise on the management of leisure waterways. In July 1995 IWAAC responded to the Department of Environment (DoE) Review of Navigation with a report entitled Britain's Inland Waterways, An Undervalued Asset.13 This strongly advised increased development and conservation of the waterways, along with removal of the maintenance backlog, and restoration of derelict canals to provide an increased and more robust amenity. It was issued, in March 1996, as a public consultation document.

A Framework Document for British Waterways14 was issued, in February 1999, by the Department of the Environment, Transport and the Regions (DETR), successor to DoE. It

![Fig.3 Completed restoration and expected progress](image-url)
significantly loosened the constraints that had previously prevented BW from full involvement in financing canal restoration. Then, in June 2000, DETR published *Waterways for Tomorrow*, endorsing most of IWAAC's recommendations. One example of its benefit to canal restoration is that it was the catalyst for changes to the *Design Manual for Roads and Bridges* that now require road designers to make provision for future restoration of derelict waterways crossed by their routes.

The Waterways Trust, a charity founded in 2000, has been instrumental in facilitating the restoration of the Huddersfield and Rochdale Canals, the Anderton Boatlift and the construction of the Ribble Link (an entirely new navigation). It has been the 'client and fundholder' for these schemes, with BW acting as 'construction and maintenance manager' (Figs. 2-5).

**5. BENEFITS OF WATERWAYS**

Obviously the easier restorations were completed first and the more difficult ones are now being attempted. This raises the question of whether they are all worthwhile, particularly as the restored waterway will rarely produce sufficient direct income to cover its operation and maintenance cost. Table 2 shows figures extracted from the annual reports of BW and the Environment Agency.

<table>
<thead>
<tr>
<th>Cost/income</th>
<th>British Waterways</th>
<th>Environment Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1994/5: £ m</td>
<td>2001/2: £ m</td>
</tr>
<tr>
<td>Pleasure craft licences etc</td>
<td>7.0</td>
<td>13.4</td>
</tr>
<tr>
<td>Angling</td>
<td>0.7</td>
<td>0.7</td>
</tr>
<tr>
<td>Rents, museums etc</td>
<td>2.2</td>
<td>5.8</td>
</tr>
<tr>
<td>Commercial tolls, freight</td>
<td>3.0</td>
<td>0.8</td>
</tr>
<tr>
<td>Water sales</td>
<td>3.0</td>
<td>4.1</td>
</tr>
<tr>
<td>Telecom sales</td>
<td>-</td>
<td>6.9</td>
</tr>
<tr>
<td>Other contributions</td>
<td>8.3</td>
<td>50.5</td>
</tr>
<tr>
<td>Property</td>
<td>12.4</td>
<td>28.8</td>
</tr>
<tr>
<td>Government grant-in-aid</td>
<td>48.9</td>
<td>61.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>85.5</strong></td>
<td><strong>172.5</strong></td>
</tr>
</tbody>
</table>

Table 2. Operation/maintenance costs and incomings

The large figure in BW's 'Other contributions' income for 2001/2 mainly represents income from the Lottery and other sources for restoration work on a number of waterways. Ignoring this item it will be noted that, to balance their income, both of these major navigation authorities need to obtain half of their income from Government grants. However, restoration of a waterway provides

(a) conservation of the engineering and architectural heritage  
(b) a revived aquatic environment with its wildlife and traditional landscape  
(c) local boating, both powered and unpowered
(d) an extended cruising network that may reduce pressure on some overused waterways
(e) opportunity to create a fishery
(f) access by towpath for informal users who appreciate boating activity, architecture, wildlife and landscape
(g) safe cycling routes
(h) long-distance paths
(i) tourist income and investment for the locality, with associated jobs
(j) potential regeneration of derelict areas
(k) enhanced waterside property values
(l) enjoyment to local people
(m) reduced danger to children.

So although a restored waterway will probably only provide the owning authority with a cash income from property, maintenance agreements, boating, water sales and angling, the environmental improvement created will bring many other benefits. Overall it will become an asset that is cheap to operate in relation to the number of users.

In 1994 the Countryside Commission, BW and five other agencies commissioned the UK Day Visits Survey. It estimated that 159 million trips were made per year to BW waterways and Table 3 shows an analysis. These figures are dominated by those of the informal visitors, the uncharged users of the towpath, who make up 91.50% of all visits to canals and 83.3% of leisure visits. Informal visitors tend to concentrate at 'honey-pot sites' such as flights of locks and aqueducts, whereas others are more evenly spread. It was estimated in 1998 that the total expenditure made by visitors during trips that include BW waterways is over £1 billion per year, supporting 54000 jobs.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Visits: millions</th>
<th>Visits/km</th>
</tr>
</thead>
<tbody>
<tr>
<td>Holiday hire boating</td>
<td>0.2</td>
<td>72</td>
</tr>
<tr>
<td>Private powered boating</td>
<td>0.9</td>
<td>322</td>
</tr>
<tr>
<td>Restaurant/trip boats</td>
<td>1.5</td>
<td>536</td>
</tr>
<tr>
<td>Canoeing/unpowered boating</td>
<td>1.5</td>
<td>536</td>
</tr>
<tr>
<td>Fishing</td>
<td>2.6</td>
<td>930</td>
</tr>
<tr>
<td>Cycling</td>
<td>7.2</td>
<td>2570</td>
</tr>
<tr>
<td>Other informal leisure trips</td>
<td>67.5</td>
<td>24100</td>
</tr>
<tr>
<td>Non-leisure trips</td>
<td>78.0</td>
<td>27900</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>159.4</strong></td>
<td><strong>56966</strong></td>
</tr>
</tbody>
</table>

Table 3. Analysis of waterway visits

By comparison, according to evidence reviewed in 1982, the annual number of visits to all urban and country parks in England and Wales is 94 million, though a 1992 survey commissioned by the Audit Commission suggests around 350 million. In 1998/99 (after subtracting income from users) these parks cost about £561 million to maintain - ten times BW's £53.7 million grant-in-aid. English Heritage's net expenditure on its historic properties, receiving 11.5 million visits per year, is £42.1 million (government grant).
A method to value people's appreciation of a visit (the social worth) is contingent valuation in which people are requested to say how much they would have been willing to pay for the visit had they been required to do so. A 1989 survey gave a range of values (at 2002 prices) from 30p at Gas Street (Birmingham) and Tardebigge (flight of locks) to 118p at Anderton (boat lift), with a mean figure for 16 sites of 59p. Research also shows that the value of a visitor's experience can be increased by over 60% if there is an opportunity to see boats.

The contingent valuation method has also been used to estimate the 'existence value' of inland waterways at about £145 million. This is the cultural, heritage or environmental value that people place on them even though that they do not wish to use them, reflecting a wish that they be conserved to pass on to future generations.

Research in June 1993 found that 59 RICS members valued properties with an inland waterway frontage 18.6% higher on average than properties 3 km away from a waterway. Even properties in a development within the vicinity of a waterway command an 8.1% premium.

Waterways create jobs and regenerate deprived areas. A study of the Huddersfield Narrow Canal, which runs from Huddersfield through Stalybridge to East Manchester, concluded that restoration of half of the 32 km long canal had already led to the creation of 739 full-time-equivalent (FTE) jobs and that full restoration would create a further 2567 FTE jobs with development of 134 acres of land, including 614 residential units and 433000 square feet of business floor space. A study for restoration of the 59 km long Cotswold Canals (comprising the Stroudwater Navigation and Thames and Severn Canal), coupled with a walking trail along the route, concluded that full restoration would create 472 FTE jobs within five years of opening.

Inland waterways have been recognised as a resource for structured leisure pursuits such as canoeing, rowing, walking and fishing as well as powered boating. A shortfall of water-based recreation in the Borough prompted Basingstoke and Deane Council to engage consultants to investigate restoration of the western end of the Basingstoke Canal for this reason.

6. RESTORATION COSTS

The 'easy' restorations were completed in the early 1970s. The scale of works required to repair the dereliction of long-closed or unmaintained inland waterways now being restored can be daunting. Table 4 gives the estimated cost of restoration of a number of waterways derived from feasibility studies:

Costs can be reduced using volunteer labour for some tasks. Most restoration bodies have their own volunteer groups and there are travelling informal volunteer groups that work weekends on restorations. The Waterway Recovery Group, an IWA subsidiary, organises
approximately 20 'canal camps' per year in which (typically 20) people spend a week working for free. Volunteer labour is most suitable for non-specific, often highly visible, tasks. Valuable as it is, it now normally makes only a small contribution to the overall cost of a restoration (Figs 6-9).

7. ENVIRONMENT

In the past 20 years there has been increasing concern to protect the built and natural environment. Waterway restoration can have very significant impacts on environments that, because they have been left undisturbed for many years or because they are inaccessible other than by water, can have high biological diversity. Opposition on environmental grounds has considerably delayed several restoration schemes. It is now generally agreed that the way forward is to ensure that all schemes undertake environmental impact assessments before any work is commenced and that an agreed strategy is developed. English Nature has published guidance on how this is to be done. Wildlife bodies should be brought into the planning of schemes at an early stage.

Restored waterways are generally more biologically diverse than those that are totally derelict. Man-made channels will, if not maintained, revert to reeds, then sedge, then brush, at each stage losing biological interest. Management is therefore essential to halt the succession at a particular level or levels to maintain both the nature conservation interest and the other human interests and activities associated with the canal. So it is by no means the case that conservationists oppose restoration per se. Even in schemes where it is proposed to make an existing maintained water-channel navigable there is scope for mitigating measures sufficient to preserve the special biological features of each site. The Environment Agency has published a Guidance Note that defines the procedures to be applied.

<table>
<thead>
<tr>
<th>Waterway</th>
<th>Length to be restored: km</th>
<th>Estimated cost: £m</th>
<th>Date of estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chesterfield Canal</td>
<td>74</td>
<td>40.0*</td>
<td>1995</td>
</tr>
<tr>
<td>Chichester Canal</td>
<td>4</td>
<td>1.9</td>
<td>1995</td>
</tr>
<tr>
<td>Cotswold Canals</td>
<td>59</td>
<td>82.0</td>
<td>2000</td>
</tr>
<tr>
<td>Cromford Canal (part)</td>
<td>5</td>
<td>6.5</td>
<td>1994</td>
</tr>
<tr>
<td>Derby Canal</td>
<td>23</td>
<td>35.4</td>
<td>2000</td>
</tr>
<tr>
<td>Droitwich</td>
<td>9</td>
<td>5.8</td>
<td>1994</td>
</tr>
<tr>
<td>Huddersfield Narrow</td>
<td>32</td>
<td>31.0*</td>
<td>1997</td>
</tr>
<tr>
<td>Kennet &amp; Avon (upgrade)</td>
<td>104</td>
<td>33.0*</td>
<td>1996</td>
</tr>
<tr>
<td>Montgomery Canal</td>
<td>56</td>
<td>35.0*</td>
<td>2002</td>
</tr>
<tr>
<td>Rochdale Canal (part)</td>
<td>19</td>
<td>23.0*</td>
<td>1995</td>
</tr>
<tr>
<td>Sleaford Navigation</td>
<td>6</td>
<td>4.0</td>
<td>1994</td>
</tr>
<tr>
<td>Wey &amp; Arun Canal</td>
<td>30</td>
<td>13.3</td>
<td>1993</td>
</tr>
<tr>
<td>Wilts &amp; Berks Canal</td>
<td>108</td>
<td>102.7</td>
<td>1998</td>
</tr>
</tbody>
</table>

* Ignores cost of work done prior to the estimate

Table 4. Cost of waterway restoration
Boat movement and turbidity has a significant effect on the growth of marginal and aquatic vegetation and the invertebrates on which higher fauna live. However, this effect has proven very difficult to quantify since so many factors are involved. Analysis to date has been based on quantitative measurements by one group of experts, only derivatives of which have been published. One recent report states that moderate levels of boat traffic increase biological diversity when water is nutrient-rich since a clear channel is maintained, but that boat traffic is damaging when water is free of nitrates and phosphates. A similar analysis for the Basingstoke Canal (a site of special scientific interest managed by Hampshire and Surrey County Councils) has led the Basingstoke Canal Authority to restrict boat movements to 1300 per year. Work is being undertaken to improve the hull shape of boats to reduce their impact. However, it is likely that the effects of boat movements are most easily reduced by maintaining full channel cross-section and by controlling boat speed.

8. THE RESTORATION PROCESS

IWA has been associated with all the major waterway restorations either directly or through its corporate members. The authors have found there are three essential elements to success: local support, demonstration of feasibility and justification of the cost. The IWAAC report *A Second Waterway Age* reviews over a hundred actual or proposed restoration schemes, illustrating their current activity and offering recommendations on restoration issues to external bodies.

Restoration schemes have a very wide variety of origins. In a few instances local authorities have initiated restoration. However, more usually, an interested group of local people (often with IWA support) form a voluntary society. Generally, this restoration body starts with some restoration by its members, aimed at creating a limited improvement. A stall or a trip-boat can gain publicity, members and influence as well as providing an interest to many members and funds for further restoration. As the body grows, local authorities will often give moral and financial support towards its objectives. However, obtaining that support is dependent on a political and educational process undertaken by both sides. Successful completion of one self-contained project normally opens the door to political support for others.

Restoration bodies come in a very wide range of sizes and capabilities, typically ranging between 200 and 5000 members each. They also have a wide range of constitutions, varying with their maturity. A small group with minor assets is usually an unincorporated association; a larger group with significant income and assets is usually a charitable trust and a company limited by guarantee. Most bodies with over 2000 members have a full-time staff member and fixed office. Most truly mature restoration schemes are run as ‘partnerships’ comprising the ‘restoration body’, the local authorities, the owners or navigation authority, wildlife interests and a ‘delivery body’ (such as BW or TWT). This is the key to gaining finance.
An important aim of most restoration bodies is to secure planning protection for the line of the canal. That aim is assisted by DETR Planning Policy Guidance 13, which states

'Where inland waterways would be affected by development plan policies, or by construction or improvement of local roads, the local authority should consult... local interest groups and the Inland Waterways Association. Care should be taken to avoid severing or adversely affecting inland waterways.'

In many more recent restorations the scale of development that has occurred on the original line means that a new line must be chosen. In that case, studies of sufficient depth and credibility are required to determine an optimum route to obtain support both from local authority planning officials and from the inspector at planning enquiries. A survey undertaken by IWA this year has shown that 64% of the length of all canals under restoration in the UK has planning protection. To date, all land acquisition for restoration has been by agreement, excepting two schemes (Ashby Canal Northern Reaches and Rochdale Canal) where compulsory purchase has been needed at points that were otherwise 'ransom strips'.

9. FINANCING RESTORATION

Restoration finance is provided by a great many funding agencies, each of which can only support work that satisfies its objectives. For example, English Partnerships (and Derelict Land Grants) contributed £29 million to restoration in depressed areas of the North; RECHAR (European Union) has financed £3 million of waterway restoration in former coal-fields; the European Regional Development Fund has provided over £1 million to restorations in 'assisted areas'; the Heritage Lottery Fund has financed £50 million of work that preserves historic structures and the enhancement of sites of biological interest; and the Millennium Commission contributed £63 million to six schemes that would each provide a significant feature to commemorate the turn of the century. Generally, several such bodies will collaborate to provide funding for a project.

Numerous other individuals and bodies have contributed to restoration, though on a smaller scale than those noted above. The Landfill Tax Credit Scheme, enabling landfill site operators to remit to environmental schemes part of the tax they would otherwise have paid, has provided at least £4 million towards many different restorations. Restoration bodies themselves raise, through voluntary effort, over £2 million per year.

Local authorities often provide 'revenue' funding for professional project officers to work full-time on the restoration. In a few instances local authorities have made major capital grants towards restoration. Some high-profile contributions are the Greater Manchester Council granting £1 million to the Huddersfield Canal and Gloucestershire County Council granting £400 000 for a road bridge over the Thames and Severn Canal.

Lack of finance is the major constraint to restoration. There are signs that the sources of funding of the last few years may be drying up. The Landfill Tax Credit Scheme has been
frozen as funds are diverted to waste reduction. The Heritage Lottery Fund is becoming very much more specific in its requirements and its proportion of the (shrinking) lottery pot is being eroded by the Government's new 'good causes'. So far only a few Regional Development Agencies (successors to English Partnerships) are showing interest in canal restoration. Enlargement of the European Union has reduced 'assisted areas' where canal restoration qualifies for grants.

There is growth in Section 106 Agreements providing planning gain, where the restoration body, a property developer and the local authority enter into an agreement for a developer to provide finance and/or land for the construction of a section of waterway as part of the planning approval of a waterside scheme. A good example is that at Over on the Herefordshire and Gloucestershire Canal where the developer provided the land for volunteers to restore a canal basin.

The Waterways Trust is a charitable trust that assists schemes by using novel means of finance. By becoming the 'client' and providing what was effectively bridging finance it secured the restoration of the Huddersfield and Rochdale Canals and construction of the Ribble Link. However, although it has a public fund-raising campaign and great ability in the management of restoration, it does not have the income or assets required to pay for the majority of the schemes that it is now considering. Progress on these will depend on the availability of funding from the present declining sources, from private charities, from new sources that may be created and from novel forms of funding such as planning gain on major developments in the vicinity of the waterway.

10. POST-RESTORATION

A restored waterway needs to become the responsibility of a navigation authority, which is only rarely the restoration body. Generally it is a national body such as BW or the Environment Agency (which has the organisational infrastructure to manage with competence) or the originally constituted company under which the navigation was constructed. Local-authority-owned canals are either run by a subsidiary authority (e.g. The Basingstoke Canal Authority) or by leisure services departments. The Association of Inland Navigation Authorities provides a forum under which national standards may be agreed.

Local authorities frequently contribute towards maintenance of restored waterways, an example being the Kennet and Avon Canal where maintenance costs of 'remainder sections' are financed by the riparian authorities, justified by the income that the canal provides to the locality.

11. THE FUTURE OF RESTORATION

The Waterways Trust and British Waterways launched Unlocked & Unlimited on 19 March 2002. This describes a second tranche of restorations that they propose to undertake jointly. It includes the Cotswolds Canals, the Manchester, Bolton and Bury Canal, the Northern Reaches of the Lancaster Canal, the Droitwich Canal, the Bedford
and Milton Keynes Waterway, the Montgomery Canal, Foxton Inclined Plane, Bow Back Rivers and an extension of the Leeds and Liverpool Canal linking all the docks in Liverpool. This is a visionary commitment and BW and TWT have clearly made a thorough assessment of the costs and benefits. However, finance remains to be raised. The likelihood of obtaining the finance will depend on the general perception of the care with which the first tranche schemes have been planned and executed, and of the degree to which the expected benefits have been delivered.

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