

England's Historic Waterways:

A working heritage

Promoting high quality
waterside development



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waterside development**

A publication by
British Waterways
and English Heritage



*Historic stone
setts to form
lock quadrant,
Sowerby Bridge*

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Foreword

Urban water-space, with mix of moored craft and active frontage to the water: St Katharine Docks, London

England's 200-year-old network of inland canals and rivers is experiencing a renaissance. Derelict and often forgotten waterways have been rediscovered and are used today more than at the height of the industrial revolution, in ways that the great canal engineers of the 18th and 19th century could never have envisaged. Our waterways make a significant contribution to the visitor economy and a key part of their success has been their ability to adapt and embrace a 21st century mix of leisure, business and cultural uses.

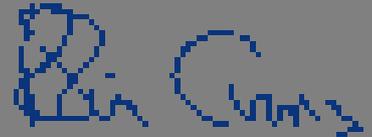
Safe, active and attractive waterfronts create distinctive places for people, providing community assets and improving the quality of life for all. Good contextual design and high quality waterside development are central to their success, ensuring their wide appeal and long-term sustainability.

Successful development in the historic environment calls for creative planning and high quality design, but these ingredients cannot be taken for granted. The architectural heritage of the waterways bears the hallmarks of the Georgian and Victorian eras and exemplifies the functional tradition of early industrial building.

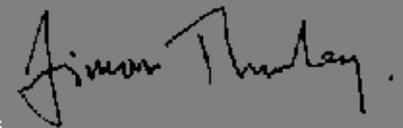
In contrast, mediocre modern surroundings can harm this heritage almost as much as neglect. This document is intended as an antidote to the spread of mediocrity and neglect. Through a series of themes and case studies it aims to inspire greater understanding of what works best when seeking to conserve and enhance, through development plans and good modern architecture, the unique historic environment of England's waterways.

British Waterways, in partnership with English Heritage, is committed to raising the standards of design and quality of new development in waterside locations. In order to identify and encourage good design there must be an intrinsic knowledge of the asset/resource, the challenges faced and the design issues that are specific to historic waterway environments.

With a better understanding of the special nature of waterside environments, including what works well and why, developers, architects, local authorities and other stakeholders will be well placed to help create stimulating waterfront buildings, distinctive watersides and vibrant waterspaces.



Robin Evans, Chief Executive,
British Waterways



Simon Thurley, Chief Executive,
English Heritage



Introduction

The canal as 'High Street' showing the key components that successfully combine to create a thriving waterside destination with wide appeal, ie. creative re-use of historic buildings, attractive natural environment and activity on land and water: Stoke Bruerne, Grand Union Canal, Northamptonshire

England's waterway heritage is an important national asset. It makes a significant contribution to the sustainability of the waterway network. Vibrant and well used waterways are economically and ecologically important, improving the quality of life for local communities and achieving returns for developers.

Property located at an attractive waterside location attracts a premium. Independent research found that when compared to similar property in a non waterside location, canal and riverside properties enjoy an uplift in value of nearly 20%. Separate studies by English Heritage show that places with a rich history and perceived importance enjoy enhanced residential and commercial value and have a strong sense of identity. Heritage matters because people enjoy it; it enriches their lives. Surveys show that 98% of British Waterways' visitors view the inland waterways as part of the nation's heritage.

As well as providing benefits to individuals, the historic environment is inherently sustainable and therefore a benefit to society. Old buildings contain embodied energy and it is often better to adapt rather than replace them. For that reason, some control over what happens to heritage assets is necessary. But control does not mean stifling new development. Using historic buildings as a catalyst for regeneration creates wealth and jobs and adds further value to a waterside location. It can also reinvigorate a place with a fresh sense of purpose and occasion.

This publication highlights the significance of England's unique waterway assets, promoting a considered and creative approach to conserving, reusing and complementing them. The objective is to safeguard the built and natural heritage and promote the added value of water through exemplary design and development, encouraging high quality distinctive design and 'placemaking'.

In illustrating successful examples of waterside development, key themes are explored through reference to a number of case studies, including city-centre environments as well as less urban contexts - not all of which are taken from land adjacent to British Waterways' network of canals and river navigations. Within these themes, special characteristics or qualities embodied in successful developments are highlighted.



A Working Heritage

Loading sacks of flour for delivery to Leeds circa 1950. This boat, 'Sowerby Bridge', was the last to carry cargo on the Calder & Hebble Navigation

England's inland waterways have evolved over hundreds of years, forming a diverse network of narrow and broad canals, as well as 'canalised' sections of river. Whilst their industrial heyday has long since passed, their original purpose for navigation is alive and well. In place of the industries the waterways once served is flourishing leisure use; there are more boats on England's waterways now than at any time in the past 200 years.

The built environment of the waterways represents a unique working heritage of industrial architecture, archaeology and engineering structures and is a valuable part of our national heritage, as well as an integral part of regional cultural heritage and local distinctiveness.

Strong memories of the industrial past of the waterways are evoked through the remaining historic environment as well as old prints, photographs and written accounts. Up and down the country there are significant, and in many cases complete, historic survivals of the Canal Age (c. 1760 – 1840) imbued with a unique character that derives from their original function, as well as the local topography and vernacular architecture. Change is a necessary component of this historic environment and should be embraced with sensitivity to safeguard the heritage value of the waterway network for future generations.

Understanding the historic environment

The unique historic environment of the English canal network is a shared and finite resource whose special qualities must be fully understood and appreciated in order to be valued by modern society. Commercial pressures can put the character, history and traditions of the waterways at risk from creeping erosion and inappropriate intervention from new developments. This is not to say that fresh and contemporary modern architecture should be discouraged, rather that any new development should first and foremost consider the historic context and traditional character of the waterways.

Proven planning and design tools, such as Heritage Assessments and Character Appraisals, carried out at the initial stages of a project, provide the opportunity to consider the historical and social significance of waterway sites and buildings. These are essential in defining the particular character of a place. Assessing the townscape (and crucially, the waterscape) in conjunction with other appraisals, is a necessary part of the planning process.

English Heritage provides guidance on how to gain an understanding of the historic context and assess the impact of changes, and this should be applied to all development proposals at the earliest opportunity. Further specialist advice and guidance is available from British Waterways and other key organisations and early consultation is recommended (refer to Annex A for details).

England's network of inland waterways is characterised by a rich mix of building typologies, often contrasting markedly in scale, form and material. Building types range from massive warehouses to small stables, valve houses and lock lobbies, often with features (like domed roofs) that seem to ape 'polite' styles of architecture. All form part of the unique working heritage and archaeological legacy of the age of industrial canals. Key components of the waterway infrastructure include boatyards and dry docks – in certain locations these can form an essential part of the working heritage, providing important boating facilities in support of water-based leisure and tourism activity.



The dramatic scale and presence of these large and imposing textile mills and their direct relationship to the canal, forms a definite 'edge' and an impressive backdrop to the waterspace, bringing a strong sense of character and identity to the canal corridor: Rochdale Canal, Manchester

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Distinctive lock keeper's cottage in a neo classical style – this was one of a number of similar dwellings, creating individual buildings of modest distinction, on the Gloucester & Sharpness Canal

Understanding historic buildings and assessing the significance of all the elements of a waterside location is vital to informing development proposals. Heritage and Character Assessments, carried out by either developers (or other agencies) to support an application, or local authorities to inform policies, should include not just the obvious buildings and structures, like lock keeper's cottages and masonry bridges, but also the small or incidental features such as mileposts and boundary markers, or the channel walling of a canal. As pressure to develop increases, it is often the least acknowledged heritage features that are most vulnerable.



Typical masonry bridge with simple, elegant arch spanning the Grand Union Canal: Stoke Bruerne, Northamptonshire

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Cast iron milepost in canal company 'livery' - an example of unassuming (and sometimes even hidden), incidental features of the canal network: Trent & Mersey Canal

Safeguarding the Assets

An assessment of the significance of a historic building and its parts enables recognition of its value and informs the way forward, including planning and public consultation. Finding new uses for historic buildings is strongly encouraged and should follow the principles of minimum intervention. Historic materials, fixtures and fittings are valuable and wherever possible should remain on site. Where such items cannot be left in situ they should be carefully salvaged and stored for reuse in an appropriate context.



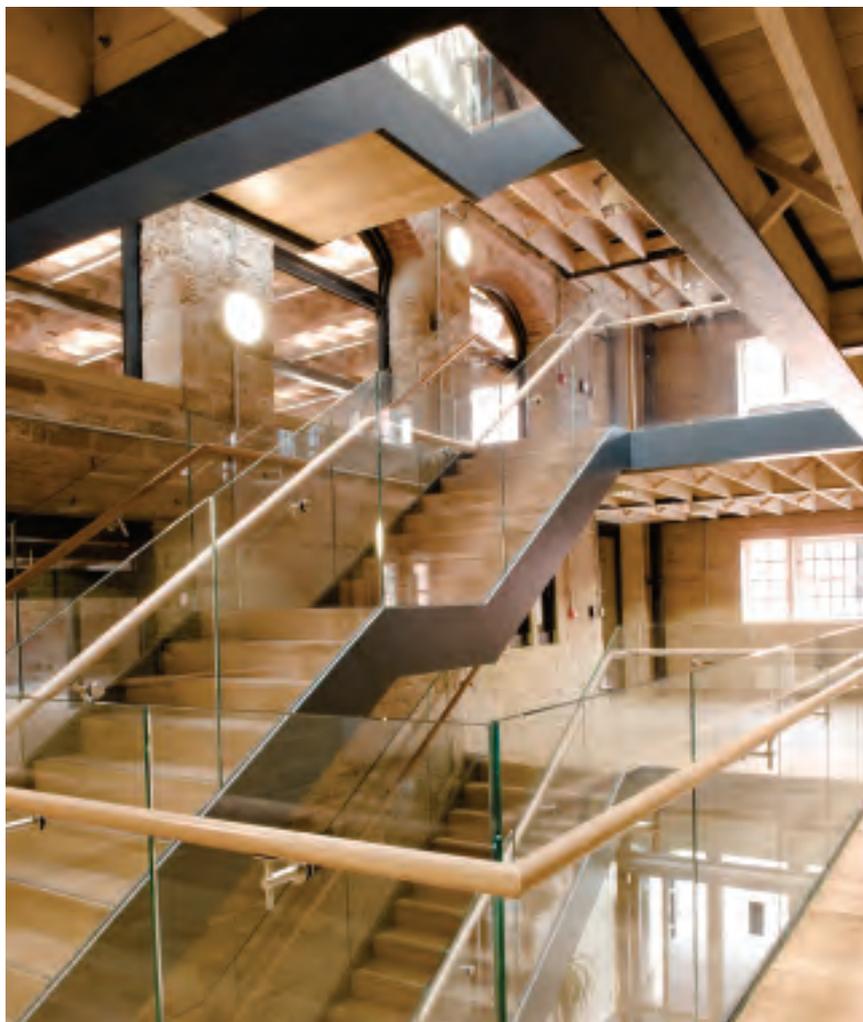
*Historic photograph by Eric de Mare from the English Heritage (NMR) collection (1945-1980), Navigation Warehouse, River Calder, Wakefield
The caption reads: 'The Calder & Hebble Navigation Warehouse in Wakefield looking across the River Calder. The warehouse, built in 1790, has a barge hole in the centre to provide a covered wharf and a crane stands on the quay'*

Navigation Warehouse 2009 - following comprehensive restoration and refurbishment, a former 'building at risk' has been rescued and enhanced, including safeguarding its original design and important, direct relationship to the water



The creative reuse of historic buildings is inherently sustainable and contributes powerfully to the preservation of local distinctiveness along the waterway network. Adherence to accepted conservation principles helps protect the significance of places, whilst harnessing the creativity of architects and designers to promote sustainable new uses.

In converting buildings for new uses, the most successful developments acknowledge local distinctiveness, ensuring the preservation of patina, or evidence of use, such as worn cobbles at the lockside, or rope markings on bridge parapets (a legacy of horse-drawn boats), with an approach that seeks to avoid over tidiness and gentrification.



Sympathetic stonework repair and selective replacement to safeguard and enhance the historic building: Navigation Warehouse, Wakefield

Sensitive staircase installation and internal remodelling facilitating sustainable new uses and turning a liability into an asset: Navigation Warehouse, Wakefield

Complementing the Assets

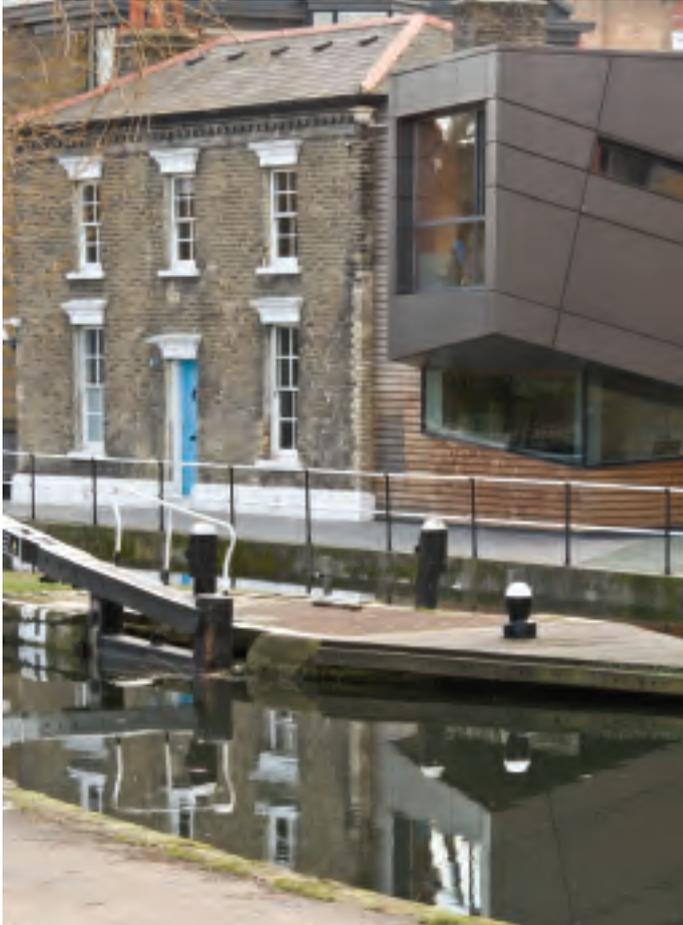
Complementary new development can create distinctive, contemporary landscapes when informed and inspired by the legacy of a robust, workmanlike past. The aim is to create sustainable, desirable places whilst safeguarding and enhancing heritage value.

England's waterway heritage comprises many unique urban assets which can become catalysts for successful regeneration, supporting urban and market town renaissance projects, as well as housing market renewal.



Historic canalside warehouses in their verdant Calder Valley setting, following comprehensive restoration and refurbishment in 2006: Sowerby Bridge, junction of the Rochdale Canal and Calder & Hebble Navigation

New development, infill or additions work best in historic settings when they are sensitive to the immediate context of form, scale, texture and materials. In some instances there may be scope for interventions in counterpoint to existing buildings. New development can breathe life and long-term sustainability into historic buildings and their settings.



Dramatic contrasting addition to historic lock cottage: Graduate Centre, Queen Mary College, Mile End Lock, Regent's Canal, London



Contemporary restaurant building providing – with its patinated-steel external walls - a contrasting yet sympathetic addition to a similarly utilitarian historic warehouse: Gloucester Docks, Gloucester and Sharpness Canal.

Successful new developments respond sensitively to existing building forms, reinforcing the importance of group value and ensuring a positive relationship with the water. Opportunities should be taken to frame the waterspace, optimise views and exploit aspect.

The sometimes unwelcome impact of cars at the waterside can be effectively controlled by screening their impact through careful siting of buildings and reserving the waterside for higher-value uses.



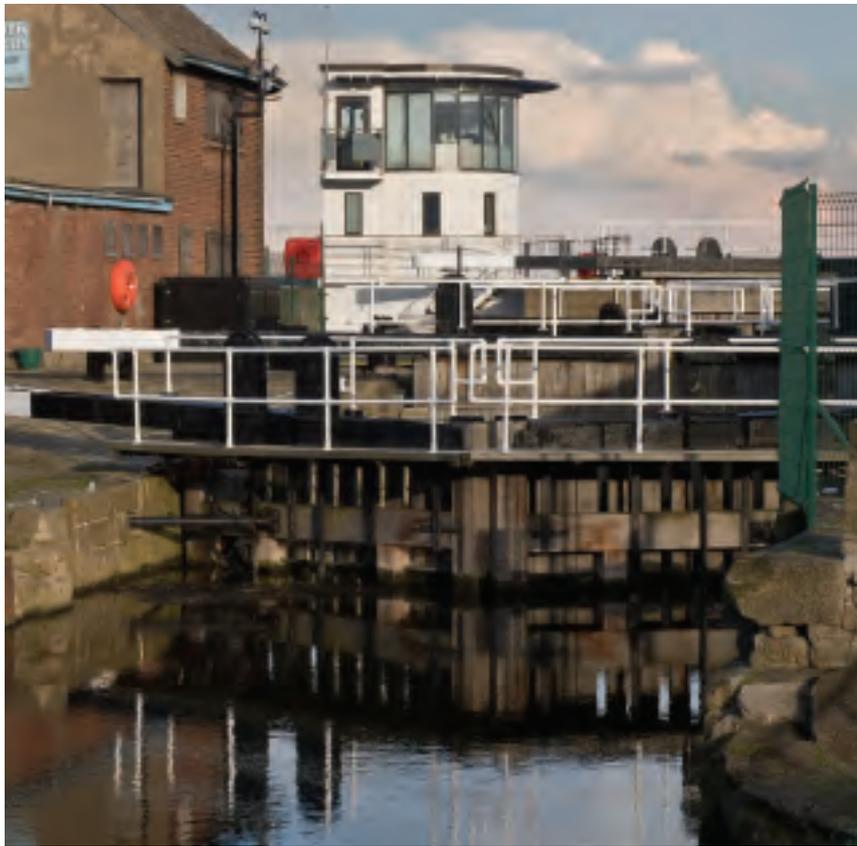
The simple building forms of recent housing (right) respect the scale and massing of the neighbouring historic warehouse (sensitively converted to wharfside restaurant): Union Wharf, Grand Union Canal, Market Harborough.



Contemporary waterside housing - sympathetic form and massing with strong canal frontage: Flood Lock, River Calder, Wakefield

Successful intervention can include striking contemporary development and the innovative use of dynamic form and colour. With careful handling the result can be bold and imaginative, yet still provide a sympathetic and appropriate response to the historic waterway context.

This approach can invest historic buildings and their settings with a welcome new life and function, widening their appeal and creating enhanced values for developers.



© Derek Pratt

Sympathetic in scale to the existing workshops and warehouses, this recent lock-control cabin provides a striking contrast in form and colour, marking the junction of the River Trent and the Stainforth & Keadby Canal (Sheffield & South Yorkshire Navigation): Keadby Lock, River Trent

Distinctive roof top cantilevers and projecting balconies in colour, used to dramatic effect: Adelaide Wharf, Regent's Canal, London



Scale form and massing of recently completed commercial office development complementing historic Navigation Warehouse and providing unrestricted access to the waterfront for pedestrians: Calder & Hebble Navigation





Use and Activity

Popular waterside destination by night in the heart of the city, with a variety of uses and activities providing 24-hour interest and animation: Gas Street Basin, Birmingham

The changing role of the waterways to match users' needs and aspirations has meant that the value of this unique national asset is increasingly recognised. It is important to appreciate the role that waterways play in local communities, bringing benefits to health, education and quality of life.

With the inland waterways forming a key element of the leisure and tourism industry, waterside developments can generate greater participation and involvement in the waterways by including, where appropriate, the facilities to encourage waterway users to make best use of the asset. Facilities could include boat moorings, cycle hire and refreshments provision as well as simple access improvements.

Balancing competing needs

Canals and rivers conjure up images of boats. British Waterways licenses over 32,000 boats across England, Scotland and Wales. Often brightly coloured, these craft differentiate our canals and rivers from other water spaces and are the reason that many towpath visitors come back time and again. The requirements of boaters must therefore be integral to any development proposals.

Residential and leisure craft now make up the largest group of boats on the waterway network and appropriate moorings within a development will add colour and vibrancy. Moorings range from long-term berths, where people may live for designated amounts of time, through to visitor moorings that encourage short stops and allow visiting boaters to explore new areas and destinations. Each type of mooring has a specific set of requirements, ranging from basic access and low-impact facilities such as water points and mooring rings, through to the provision of WCs, showers, pump-out facilities, refuse /recycling, laundry and storage areas for longer-term berths.

Canals were originally built for the transportation of goods and commercial boats still operate on some of the larger waterways, transporting goods such as construction aggregates and waste. The continuation of this activity is encouraged by British Waterways, reinforcing the sustainability of the waterways, where practicable and economically viable.

Other on-the-water activities, such as kayaking, canoeing and rowing have also become more popular and the most valuable future developments will be those that ensure the necessary facilities can be provided to support them. The objective is to ensure that active waterspace is safeguarded and enhanced, relating the scale of watercraft and waterspace with development, through a considered approach to planning and design.

The varied and growing numbers of towpath users should be considered. These include joggers, cyclists, anglers and casual walkers, as well as boaters – even a rare horse-drawn boat might occasionally be seen on the canal. Waterways form an important part of the local community infrastructure, linking homes with local shops, schools and other facilities along the towpath.

Canals and rivers are a tourist attraction in their own right as well as connecting other attractions. The waterway heritage forms a significant part of the tourism offer within the UK, attracting more than 270 million visits to the British Waterways' network per annum and contributing up to £1.2bn to the visitor economy (with potential for growth to £2bn by 2012).

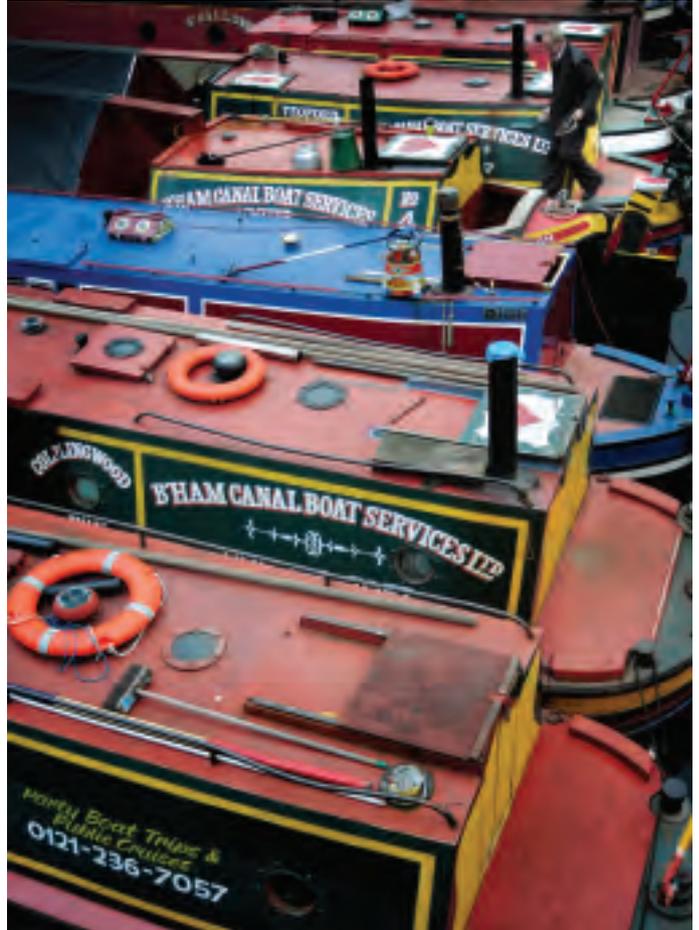
Making space for events and activities

In considering the needs of all waterway users, it is important to manage competing interests and expectations. Waterside development and masterplanning should assess the needs of existing and potential canal and towpath users and design appropriately for their activities.

Cyclist on the canal towpath with waterbus alighting at the quayside: Gas Street Basin, Birmingham

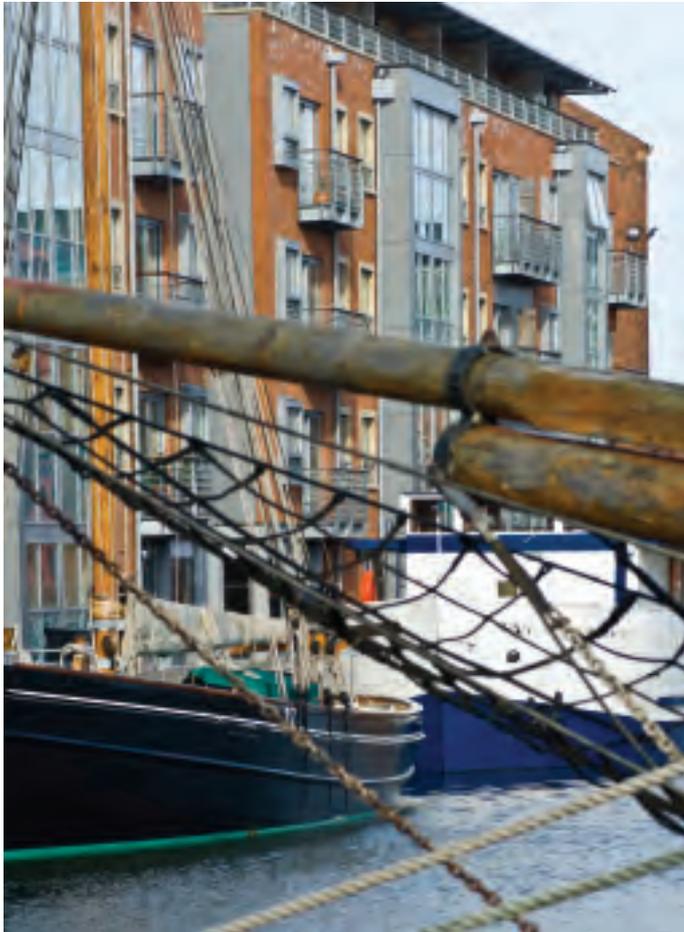


Special platforms or 'angling pegs' built at the water's edge to provide a safe environment for anglers: Blythe Waters, Solihull, Warwickshire



Accommodating 'living afloat' where appropriate/desirable as an added regenerative benefit: permanent, residential moorings in the heart of the city: Gas Street Basin, Birmingham

Seasonal festivals and events are often focussed on the waterways and associated heritage assets. In planning for continued success and in widening the appeal of waterside venues still further, consideration should be given to the nature and scope of water-related events and activities, including mitigating the impacts of any temporary or permanent infrastructure.



The presence of tall ships is a regular and distinctive feature of this expansive inland waterspace, where a varied events programme makes the historic docks a year round attraction: Gloucester Docks



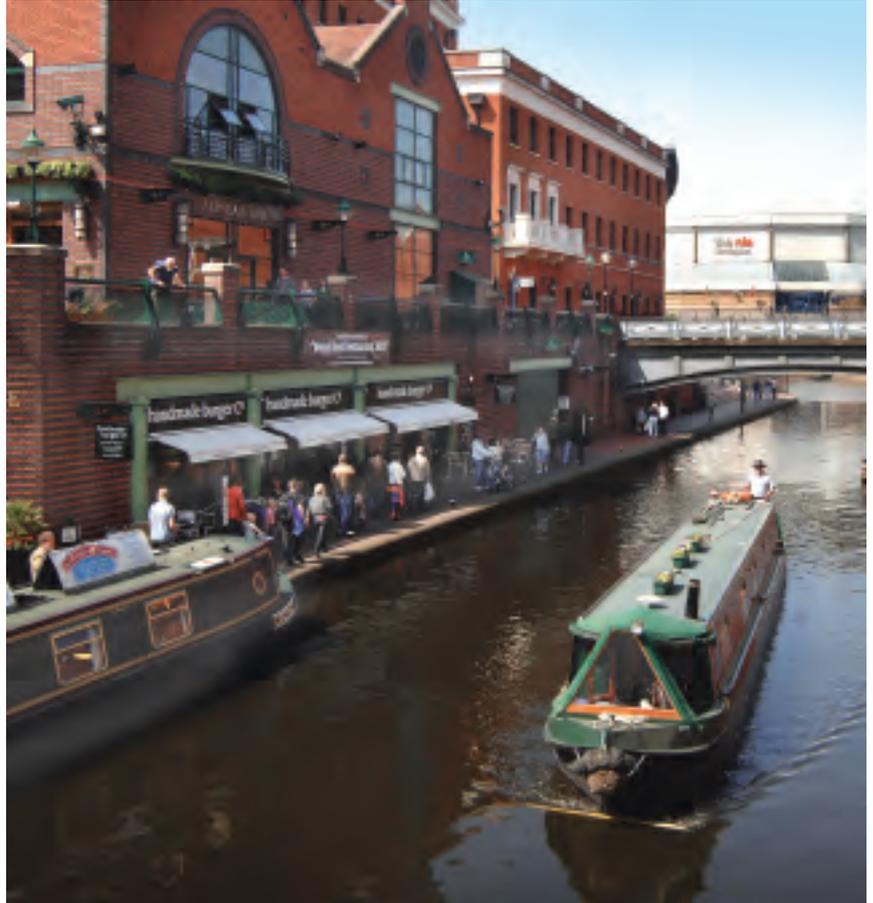
Summertime canal festival: Stoke Bruerne, Northamptonshire

Creating 'active frontage'

Developments with a balanced mix of uses including 18/24 hour use (i.e. some of the buildings will always be occupied, or in use) often provide the most successful, safe and sustainable waterside places. A diversity of uses with 'active frontage' to the waterway enhances the perceived safety of the waterway as a route, extends the length of time when there is activity in the buildings, and draws greater numbers of people to the waterfront. The resulting informal observation of public activity through overlooking the waterway and any adjoining open spaces, provides natural surveillance and policing.



Creative reuse of former warehouses with historic wharfside area reborn as a characterful venue for eating & drinking alfresco: Sowerby Bridge, Calder & Hebble Navigation



Popular canalside pub and footbridge generating footfall which animates the waterside: Birmingham city centre. Birmingham waterside's success as a good quality piece of townscape is partly due to the minimal impact of car traffic on the waterside

Proximity to waterspace and the opportunities to fully exploit 'frontage' to the water are facilitating the reinvention of many of our towns and cities. Particularly successful are examples where built heritage combines with complementary new development to create an active waterfront.



Demonstrating that integrating the water-filled spaces between land and buildings into development proposals and creating opportunities for visiting craft to moor results in a dynamic land/water interface: Castle Wharf, Nottingham & Beeston Canal

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A prominent new building (King's Place) signals the entrance to a basin and combines offices with a new arts, music and exhibition venue, including the rotunda bar with outdoor seating at quay level: Battlebridge Basin, London



Public Realm

Ambitious new canal link running in front of the historic 'Three Graces', showing how a bold new waterspace can be successfully integrated into a context of great historical and cultural significance – new canal linking the Leeds and Liverpool Canal with the South Docks network: Pierhead, Liverpool

Well managed, successful public spaces have a purpose, encouraging use and activity. The canal should be treated as an integral part of the public realm of any proposed scheme, with development being easily accessible from the towpath. New developments usually result in an increased footfall on the towpath. This can be anticipated at the design stage with towpath resurfacing and management agreement built within the development proposal. The treatment of the towpath should be carefully designed to respond to an assessment of the waterway landscape character.

Enlivening public space

The public-private interface between the waterway and any scheme should create an attractive view of the development when seen from the water; the towpath and neighbouring land. Waterway walls, barriers and boundary treatments are often the single most important design detail affecting how the waterway corridor is perceived. It is important to consider the linear character of the waterway when designing these elements. In most circumstances, barriers along the water's edge such as walls and railings have no place on the towpath side because they can impede navigation.

The waterways have a functional elegance that deserves respect. The design and detailing of the best new public spaces reflects and/or complements vernacular building forms of the locality and elements within the landscape, using simple and robust designs consistent with the character, function and scale of the waterway corridor.

Enabling access and connectivity

In considering legibility and connectivity, it is important to view the waterway environment from a range of perspectives, reflecting the various modes of transport. Strong, direct pedestrian links create enhanced connectivity between new developments and the waterway. As the waterway corridor forms a natural conduit for movement, connectivity can be further improved by linking the development to places beyond. Subject to local context analysis and adjacent land uses, connectivity between the site, the canal and the local streets should be assessed and improved with new and existing gateways to the waterside celebrated. Well considered public access points and enhanced legibility will increase interest, vitality and security along the waterfront, creating access for the less able as well as providing opportunities to limit and control vehicular access.

Visually complementary old and new bridges create a strong sense of place – this dynamic combination of bridge structures underlines the many layers of transport history associated with this context: Castlefield, Manchester



Bridges create exciting possibilities for dynamic and sculptural forms, improving connectivity and acting as landmarks or 'magnets' to draw in visitors and help instil a strong sense of identity. When planning a new development, all opportunities to integrate land and water through buildings, bridges, landscape and complementary uses should be considered.

The introduction of new bridges or infrastructure into the waterway corridor will be subject to consideration of visual, landscape, environmental and user impacts as well as navigational requirements and where appropriate, early discussion with British Waterways and other agencies is encouraged.



A classic and enduring image of dramatic 'living bridge' photographed by Eric de Mare (ref: English Heritage NMR collection): Bridge of Sighs, Cambridge

Through careful design and planning, the value and character of the waterside can be extended into the surrounding neighbourhood, strengthening links between towns/cities and their waterfronts. This can be achieved through the consistent use of visual references and landscape details to establish a sense of place – it is important to guard against the danger of 'ribbons' of development fronting the water which effectively 'sterilise' development sites immediately behind the waterfront zone.

Measures which help to 'blur the boundary' between land and water can include terracing down to the water's edge and other means of facilitating access on to or over the water; improving opportunities for interaction with the waterspace and widening its appeal.



Prominent lighting beacons extending from land out on to the water provide a strong visual connection between the waterfront and the city centre: Bristol waterfront



Innovative, dynamic bridge providing elevated walkway and cycleway and improving links to the city centre: Riverside Bridge, River Cam, Cambridge

© Jaap Oepkes

Ensuring lasting quality

Careful consideration should be given to the selection and application of hard landscape materials to ensure they respect and enhance their setting. Successful developments will stand the test of time and continue to display the characteristics that made them successful when they were first completed. The preservation and enhancement of historic surfacing, such as worn stone setts or cobbles, can often make a significant contribution in maintaining the character of a place.



Innovative hydraulic flood defence sensitively designed to complement the historic context: Navigation Warehouse, Wakefield

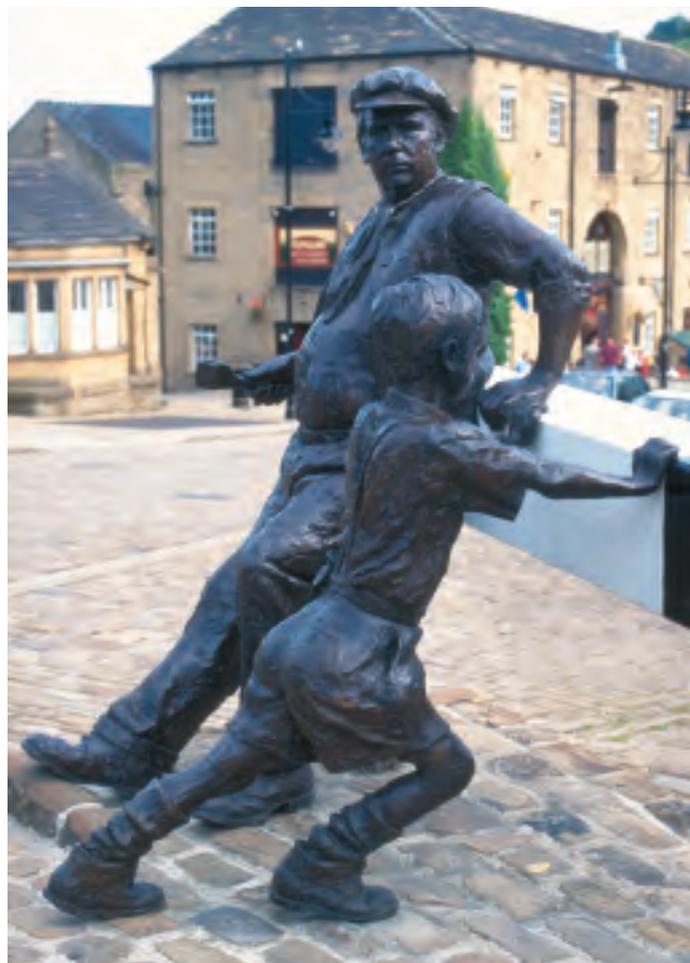


Robust natural stone copings and setts - archetypal 'canalscape' showing rich and appealing patina of age: Castlefield, Manchester

Critical to the long-term success of waterside spaces and places are effective management solutions. Management plans and maintenance agreements are especially important for schemes with public/semi-private areas. Early consultation with key stakeholders is essential in establishing suitable and appropriate management regimes.

In conjunction with high quality public realm, integrated and imaginative public art installations can enliven the waterside, helping to strengthen the sense of place and identity and enhancing local distinctiveness.

Significant opportunities also exist to provide appropriate interpretation and signposting as part of an integrated approach to enhancing legibility.



'Jack of the Locks' public art installation depicting the town's former lock keeper: Sowerby Bridge, Yorkshire



Sculptural quayside seats: Navigation Warehouse, Wakefield



Waterspace

Expansive docks framed by imposing historic warehouses – highlighting the value and importance of boating activity, adding colour and vibrancy and giving meaning to the waterspace: Gloucester Docks

The added value that a waterside location can bring is now widely understood by those who seek to develop land adjacent to water. However, ensuring that the water is seen as more than just a backdrop to development is vital to the successful regeneration of our towns and cities. In order to achieve real success, the approach to waterside development must be based on treating the waterspace as an integral part of any proposals. This will ensure that all opportunities to create a unique environment for living, working and leisure can be maximised; and potential conflicts can be designed out. Development should seek to make any associated waterspace attractive to all waterway users, providing appropriate space and facilities to sustain waterway activity.

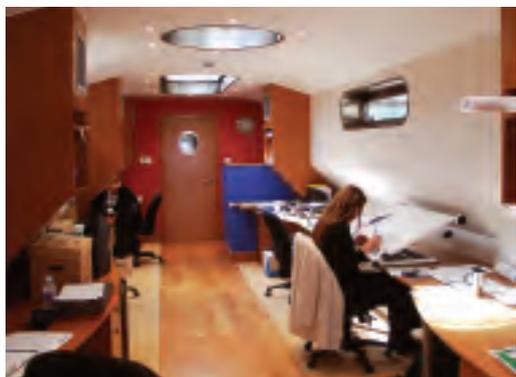
Good design and effective management of the waterspace are integral to the development process – how, why and when the waterspace will be used must be understood in order to ensure it can be integrated successfully with the surrounding development. A Waterspace Strategy can be a useful tool in understanding the local waterway context and boating requirements and, where necessary, providing new or enhancing existing facilities.

British Waterways aims to enable the creation of distinctive and desirable places on the waterway network, whilst maximising the potential of their settings and heritage features. In this respect, it is essential that individual waterside developments are viewed in the context of the wider network and not in isolation.

Well integrated waterspace can be used to maximise the development potential and unlock the economic, social and environmental benefits of waterside land, as well as generating a vibrant, attractive and sustainable waterway corridor. Getting the right uses on the water to complement the waterside development, and vice versa, is a key consideration. In considering potential waterspace uses, the value of areas of open water should also be recognised, in balance with areas of moorings and other waterway use, with long views and reflections adding to the appeal of a waterside location.

Animating the waterspace

Balanced with the value of open waterspace, activity on the water is a vital component of successful waterside development. This may include traditional boating activity (including living and working afloat), with colourful craft coming in various shapes and sizes, as well as other more unusual water-based attractions.



Converted broad beam boat, providing characterful office space afloat, including reception, meeting space, kitchen and facilities: Grand Union Canal, Paddington, London



Where appropriate, watersports can successfully animate the waterfront and provide an attractive amenity for the local community



Colourful fleet of boats for holiday hire moored at Sowerby Bridge, Yorkshire

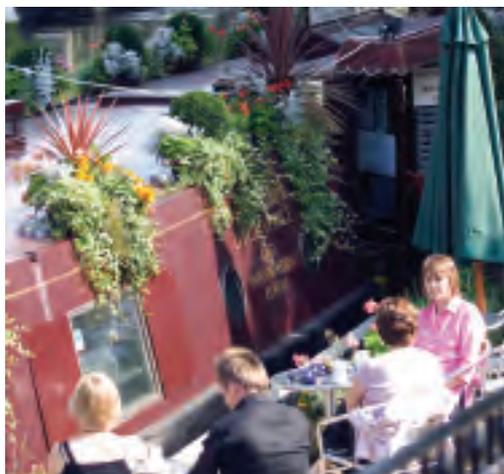
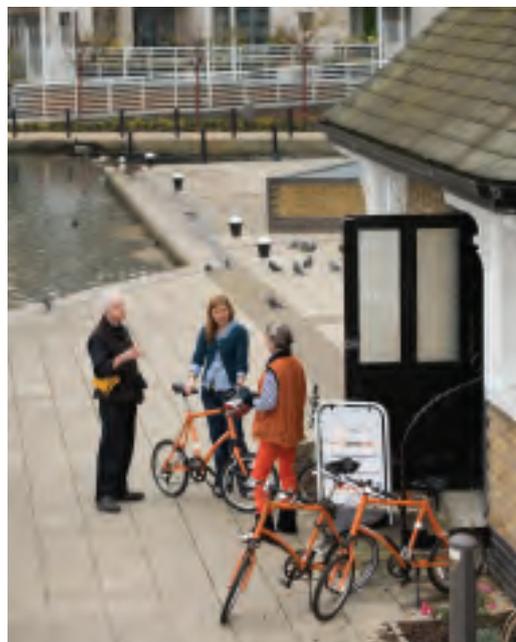
Floating cafes, restaurants and tea rooms, business barges/floating studios, specialist retail/floating markets, community boats, corporate hospitality boats and even places of worship on the water can all help to create distinctive waterside destinations.

The adoption of water taxis and 'park and glide' schemes has been successful as an innovative and sustainable means of transport in waterfront cities such as London, Bristol and Birmingham.



Corporate
hospitality boat,
Canary Wharf,
London
Docklands

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Floating cafe,
extending use
and activity onto
the water: Little
Venice Pool,
London

Cycle hire facility, housed in a listed lock keeper's office – breathing new life into an otherwise redundant building. The towpaths can offer popular and traffic free routes for leisure and commuter cyclists:
Grand Union Canal, Brentford



A Sustainable Environment

Otters, sometimes confused with mink, use a variety of waterside habitats, but prefer relatively undisturbed water-courses with thick vegetation along the banks. Canals and rivers that link scrubby and woodland areas are ideal, offering resting areas and habitat suitable for breeding holts. Successful partnership projects with organisations such as The Wildlife Trust have resulted in artificial holts being introduced along canals

The waterways provide outstanding opportunities for new developments to be highly sustainable, taking advantage of the canal/river as a green transport corridor. Threading through towns and cities, canals and rivers form part of a green and sustainable network, providing calming (and cooling) green spaces in sometimes frenetic urban environments.

Waterways can contribute to the delivery of sustainable and carbon neutral development and achieving on site renewable energy targets, forming part of the land drainage & water supply systems and assisting in mitigating flood risk & sustainable urban drainage systems (SUDS).

The introduction of green or brown roofs, the use of canal water for heating and cooling and options for transporting goods by water during construction and occupation are greatly encouraged. Where potential development sites abut the waterways and subject to ecological assessment supporting it, owners and developers are actively encouraged to reduce their carbon footprint and help lessen the wider impact on the environment, by harnessing canal water for heating and cooling buildings, for example. A number of established schemes which take advantage of the cooling waters of their adjacent canals include the City of Nottingham's district heating system and the Mailbox shopping centre in Birmingham. In addition, in consultation with British Waterways there is scope for developers to consider other renewable energy measures, including micro-hydroelectricity generation.

Promoting bio-diversity

England's waterways are an important environmental resource. Canals and river corridors provide long and continuous habitats; their banks, the towpath verge, hedgerows and built historic structures such as walls, bridges and buildings provide an array of opportunities for wildlife to exploit. In new development or restoration, care must be taken to protect important habitats and wildlife havens. Waterways support a wide variety of protected and characteristic species such as bats, water voles, kingfishers, eels, bullheads, loach, stickleback, snakes, newts and insects, including damselflies and butterflies, as well as water plants such as pondweeds. In recognition of this, a waterway may be designated under regional, national and European legislation.

Understanding how wildlife benefits from the waterways and their associated features – alongside the impact that new development might have on these species and habitat resource – is central to the design process and a successful consultation process. From an ecological perspective, successful waterside developments are sensitive to the local environment and include habitat creation and enhancement opportunities, whilst accommodating the operational needs of waterway users and the changing demands of waterside development.

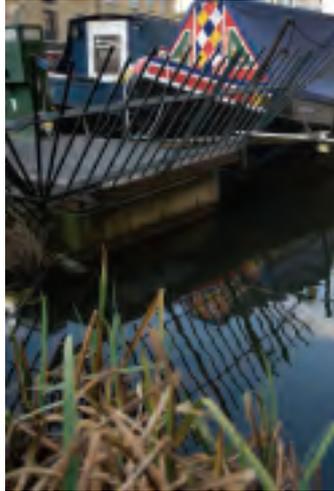
Engaging stakeholders and the community

Effective engagement is essential in bringing forward successful development. There are many user groups with an active interest in England's waterway network. As well as boaters these include volunteer groups with representation covering a number of areas of activity.

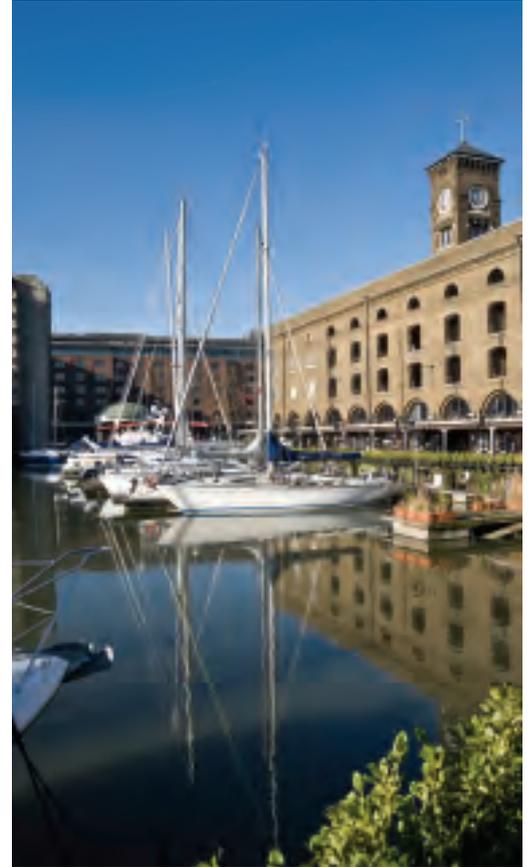
Consultation and engagement with established groups and local communities, harnessing local knowledge and experience, is more likely to lead to sustainable development solutions.



Reed rafts planted by the community have turned this former industrial stronghold into a welcome haven for wildlife: Battlebridge Basin, King's Cross, London



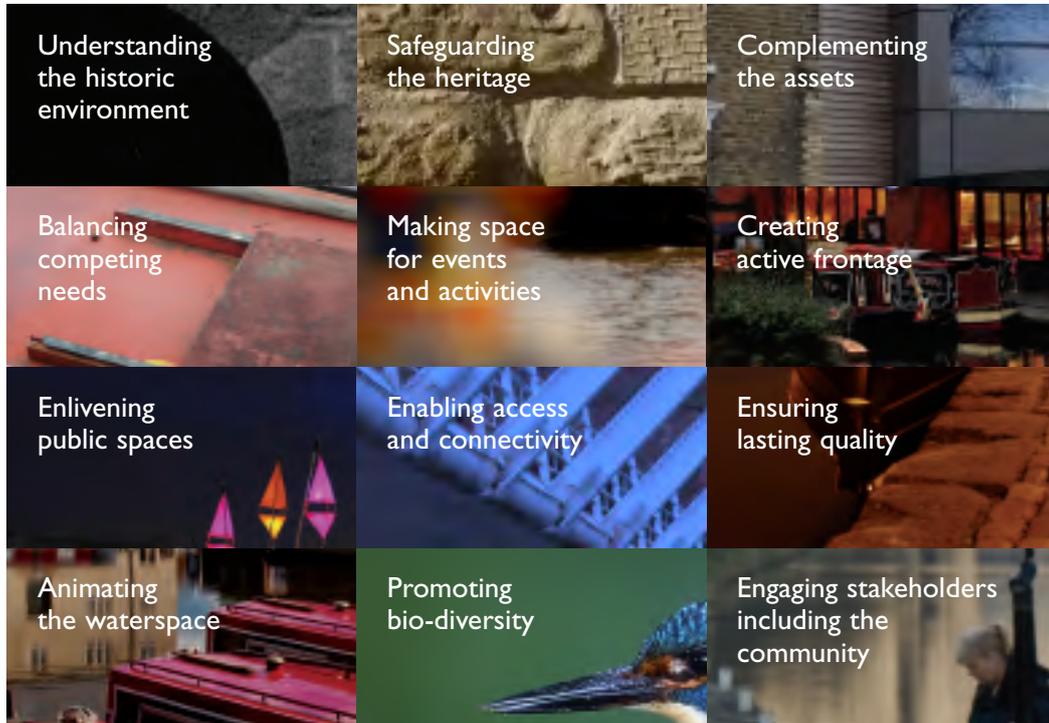
The water vole population is decreasing and inland waterways are important linear features that connect fragmented habitats and encourage this protected species to flourish: Water vole inspection on the Droitwich Canal in the West Midlands



A pioneer of mixed-use waterside development, initiating urban cafe culture in a green waterside landscape, the lasting success of St Katharine Docks, London, can be attributed in part to a well developed sense of community ownership

Summary

The themes presented in this publication emerge in the characteristics and qualities of the case studies illustrated. Although rarely all seen together in the same place, these qualities help to create successful waterside developments and destinations:



In order to meet the challenges of the future, whilst treasuring the unique character of the inland waterways, the call is to improve the quality of waterside development. Forthcoming schemes by local authorities, developers and other agencies, should seek to incorporate these characteristics, creating high quality, distinctive waterfronts with lasting appeal.

Annex A: English Heritage Advice

1: Regulatory framework

The heritage character of the inland waterways and the historic assets that are its constituent parts represent a precious and irreplaceable resource. These assets give distinctiveness, meaning and quality to places and make an important contribution to our quality of life and sense of place. They are also social and economic assets and a resource for learning and enjoyment.

Although the whole of the historic environment centred on the inland waterways demands careful treatment, there are particular legally designated assets – conservation areas, listed buildings and scheduled ancient monuments – which additionally enjoy legal protection.

Where designations exist, formal legal permissions may be required where changes – even repairs – are contemplated, as follows:

- Conservation area consent
- Listed building consent
- Scheduled monument consent

Government policy and advice on the management of the historic environment within the English planning framework is set out in Planning Policy Statement 1: Delivering Sustainable Development (2005) and currently in more detail in Planning Policy Guidance 15: Planning and the Historic Environment and Planning Policy Guidance 16: Archaeology and

Planning. These documents provide guidance to local planning authorities (LPAs) property owners, developers, amenity societies and the general public on the operation of the planning system. Publication of a unitary PPS, replacing both PPG 15 and PPG 16, is imminent.

Planning Policy Statement 1 (PPS 1) highlights the importance and benefits of pre-application discussions between developers and LPAs.

2: The role of English Heritage

The Charter for English Heritage Planning and Development Advisory Services (2009) explains English Heritage's advisory services for planning and development. EH has a statutory role in responding as a consultee to local planning authorities in connection with applications for planning permission and listed building consent, and responding to the Department for Culture, Media and Sport (DCMS) on applications for scheduled monument consent. In addition, EH provides various types of non-statutory advice, including pre-application advice on important proposals affecting the historic environment in England and advice on archaeology within Greater London.

3: Conservation Principles

English Heritage takes a values-based approach to appraisal and management of the historic environment, expressing the aim of the Policies and Guidance section of Conservation Principles for the Sustainable Management of the Historic Environment (2008) as to set out "... a logical approach to making

decisions and offering guidance about all aspects of England's historic environment." The Conservation Principles identified provide a comprehensive framework for the sustainable management of the historic environment:

Principle 1: The historic environment is a shared resource

Principle 2: Everyone should be able to participate in sustaining the historic environment

Principle 3: Understanding the significance of places is vital

Principle 4: Significant places should be managed to sustain their values

Principle 5: Decisions about change must be reasonable, transparent and consistent

Principle 6: Documenting and learning from decisions is essential.

4: Appraisal process

It is important to understand the significance of an historic building, complex or area and the possible impact of a proposed development on this significance.

In relation to the legal consents noted above, where pre-application discussions have taken place, the need for specialist assessment may have been identified, based on the applicant's preliminary proposals. The LPA may advise that the applicant undertakes a Rapid

Appraisal, Conservation Statement or Conservation Management Plan before taking proposals further.

Such exercises provide information on the significance of an historic building, complex or area and guidance on how that significance could be retained, reinforced or enhanced in any future change of use, alteration or development. The findings can then be used to shape and inform an emerging scheme.

Where a scheme proposes development or alteration it is essential to consider how these actions may affect the significance of the asset, its constituent parts and its setting. Understanding of significance and the potential impact of proposals forms the basis against which the merits of any scheme can be judged.

In instances where the information is insufficient to determine a formal application, the applicant may be asked to provide the LPA with a specialist assessment, providing an understanding of the historic asset and the potential impact of the proposed change on the significance of the asset. The assessment might include some or all of the following:

- Historical research
- Fabric analysis
- Architectural investigation
- Exploratory works
- Archaeological evaluation

Elucidation of these techniques can be found in: Informed Conservation, Kate Clark, English Heritage, 2001

Annex B: Key organisations

There are several organisations with specialist knowledge, and many waterways stakeholder groups. Early consultation at conceptual design stage can greatly contribute to a successful scheme. In addition to the local planning authority, the following statutory bodies and organisations can provide relevant guidance, information and contacts:

British Waterways cares for 2,200 miles of the nation's canals and rivers and has extensive knowledge and experience in the management of inland waterways. Its workforce includes planners, urban designers, engineers, estates surveyors, ecologists and heritage advisers to name but a few. British Waterways welcomes early consultation from local authorities and developers regarding proposed waterside development. Contact your region's local office for advice: www.britishwaterways.co.uk

English Heritage exists to protect and promote England's spectacular historic environment and ensure that its past is researched and understood. A non-departmental Public Body sponsored by the Department for Culture, Media and Sport (DCMS), English Heritage is the Government's statutory adviser on the historic environment. English Heritage works in partnership with central government departments, local authorities, voluntary bodies and the private sector and publishes excellent guidance documents: www.helm.org.uk

CABE is the Commission for Architecture and the Built Environment and is an adviser to Government. CABE also gives developers practical advice on ways to get better value through better design, keeping them up-to-date and encouraging the best approach from the start. CABE works on behalf of the public and encourages policymakers to create places that are safe, beautiful and efficient to run. They have published numerous design guidance documents: www.cabe.org.uk

The Environment Agency is the leading public body for protecting and improving the environment in England and Wales. They make sure that air, land and water are looked after by everyone in today's society, so that future generations inherit a cleaner, healthier world. The Agency carries out Government policy, inspecting and regulating businesses, as well as maintaining rivers and streams and reacting to incidents and emergencies such as a flood, a pollution event or illegal fishing: www.environment-agency.gov.uk

Natural England is the Government's adviser on the natural environment. They provide practical advice on how best to safeguard England's natural wealth for the benefit of everyone. It is their responsibility to see that England's rich natural environment can adapt and survive intact for future generations to enjoy. Natural England work with farmers and land managers; business and industry; planners and developers; national, regional and local government; interest groups and local communities to help them improve their local environment: www.naturalengland.org.uk

Cover image – Vinings Warehouse and Restaurant, Gloucester Docks – vibrant urban waterside, featuring distinctive heritage and complementary new development.

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