



**Access & Environmental
Opportunities
8**



The Spalding Leisure Wheel should be re-routed along the right hand flood bank of the Tidal River Welland and away from West Marsh Road



There are many examples of 'fly tipping' along the embankments of the River Welland



Access point improvements should be made where routes cross busy roads

Access

Introduction

The waterway corridors and their paths offer excellent access for walking, cycling and other recreational pursuits. They link town and country, and are accessible to a wide range of people contributing to a wide range of social, economic and environmental agendas. Waterway corridors are a significant part of the green infrastructure, important for nature and wildlife, giving opportunities for recreation and healthy exercise. They can be used as traffic free commuter routes, particularly in towns, where they link with public transport, so reducing traffic congestion and carbon footprints. Footpaths are in themselves important cultural heritage assets providing an educational resource, a focus for tourism to bring important economic benefit to rural areas.

'Waterways for Everyone', the Government's consultation document for the inland waterways of England and Wales emphasises the range of benefits which increased access to waterway corridors can generate. Waterways can contribute to an accessible countryside, an attractive urban fringe and pleasant traffic free town centre routes. They provide an environment for enjoyable walking, cycling, horse riding and canoeing which encourages people to lead healthier lifestyles.

The Lincolnshire Rights of Way Improvement Plan sets out how the County Council will improve the management, provision and assessment of how rights of way will meet current and future needs. The Plan states the network is fragmented, particularly for cyclists and horse riders. Riverside paths and flood banks offer an opportunity to create new routes with improved signage, waymarking and promotion.

The rivers corridors offer considerable opportunity for access. There are many Public Rights of Way along the rivers and drains, with links to settlements. Two long distance routes make use of the corridors, the Macmillan Way on its way from Boston to Abbotsbury, Dorset and the Brown Fens Waterway Trail, a 66 mile circular route linking Boston, Fosdyke, Spalding, Crowland and Donington. The Spalding Leisure Wheel is a 12 mile circuit using the flood banks of the Coronation Channel, the River Welland and surrounding drainage network, with links into the town centre. Pinchbeck, Surfleet and Crowland have Millennium Trails which link historic features of the villages to the wider footpath network.

There are two Sustrans National Cycle Routes (NCR) within the study area: NCR No.1 crosses the River Welland at Fosdyke Bridge and NCR No.12 uses the corridor of the River Welland. There is an opportunity to complete a missing section of Route No.12 between Spalding and Fosdyke in order to link the two routes.

To the western edge of South Holland District there are routes linking Peakirk and Crowland to the Peterborough Millennium Green Wheel network. The map on page 28 shows existing paths and trails.



The topography of the Fens is suited to cycling both for commuting and for leisure purposes, which is supported by the South Holland Local Plan (Ref: Our Vision for the Lincolnshire Waterways, LWP, 2008)



A fishing competition for the disabled held on the River Witham (Ref: Our Vision for the Lincolnshire Waterways, LWP, 2008)

There are a number of stables close to the river corridors and riding is an important activity in the area. The proposed multi-user routes should include access for riders as well as walkers and cyclists by creating good quality circular rides.

Canoeing is another important means of accessing the river corridors. The Lincolnshire Waterways Partnership has provided slipways and launch platforms at a number of locations on the rivers which should be expanded.

Access for All

There is an increasing expectation that safe, well designed access will be provided for all users. The Disability Discrimination Acts require service providers to make all reasonable efforts for this to be achieved. Paths alongside waterways are an attractive resource, generally level with a number of access points. Inevitably, it is not possible to make all paths, particularly those in the countryside, available to everyone and some sections will not be accessible to all.

Provision of access for all should be viewed in a strategic context, as part of the overall management of the waterway environment. Detailed audits should be undertaken on key stretches of paths to determine opportunities to create easier access and prioritise improvement schemes. Where possible, good surfacing, shallow gradients and the replacement of barriers will facilitate access for people with disabilities, older people and families with pushchairs. It is important to appreciate the needs of blind and partially sighted people, particularly on multi-use paths. Recognised design standards can be found in the Fieldfare Trust's Countryside Access for All Standards and Guidelines.

Access proposals - Improving the network

Riverside paths and flood banks are often wide enough to allow multi-user routes offering striking views across the landscape. In many instances they are publicly owned and where no public rights of way exist, permissive access can be negotiated. In some sections there may be scope for a path to be in the lee of the bank, giving greater shelter and a change of perspective.

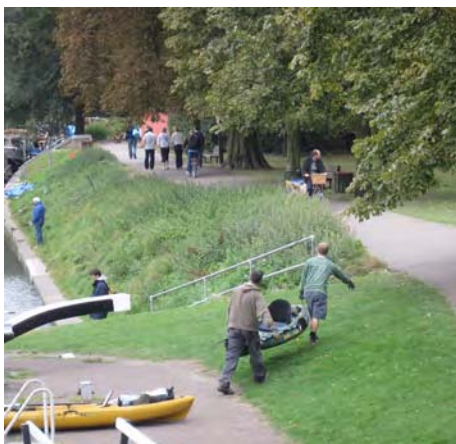
As already highlighted, there is an opportunity to connect NCR No.1 to NCR No.12 between Spalding and Fosdyke Bridge, using the south bank of the Tidal River Welland. To the north another cycle route to Surfleet Seas End could then follow the River Glen. This could link to Bourne, the 'Gateway to the Fens Tour' at Baston Fen and then on to Stamford. It would pass Willow Tree Fen at Guthram Gowt and connect to a new multi-user route following the Black Sluice Navigation to Boston. The route would utilise river paths, lanes and droves through Pinchbeck West, Pinchbeck, Surfleet and Surfleet Seas End.



The Charm Tree, NCR No.12 Corporation Bank



The recently constructed Four Mile Bar Bridge



Canoe access and portage routes will be required at waterway connection points

On the River Welland, an additional bridge crossing close to Deeping Lakes Nature Reserve would allow access to the reserve from the NCR No.12, south of the river. This would improve connections with the Deepings, Peakirk, Crowland and the Peterborough Millennium Green Wheel cycle network. The Peterborough Green Grid Strategy promotes the provision of bridging points to ensure connectivity of the network. A route to the west along the Maxey Cut, the former Stamford Canal, would take users past Tallington Lakes where there are water sport and other outdoor pursuit activities. The potential junction for the River Nene Link, close to Kennulph's Stone, will bring further possibilities of creating a multi-user route to the south.

Continuing downstream of Four Mile Bar Bridge, itself an important connection point, there are alternative multi-user routes to Spalding via flood banks, droves and lanes on both sides of the River Welland with NCR No.12 using Cradge Bank Road along the river's left bank.

Waterway Walks

A set of waterway walks should be promoted using the waterway corridors. Along the River Glen new paths and trails could include: Willow Tree Fen Nature Reserve, the Macmillan Way, the Brown Fen Waterway Trail and Pinchbeck to Surfleet Millennium Trail, with the potential to link Surfleet with Fosdyke Bridge, Moulton Marsh Nature Reserve and The Wash.

On the River Welland new bridges at Deeping Lakes and over the Maxey Cut will extend the network to connect with places of historic interest and the Peterborough Millennium Green Wheel.

Stride, Ride and Glide

Spalding and the surrounding waterway villages could offer cycle hire centres in association with an extension of the water taxi and trip boat service. This would offer opportunities for both 'Stride, Ride and Glide' connections, with part of the route taken by boat, on foot or by bike.

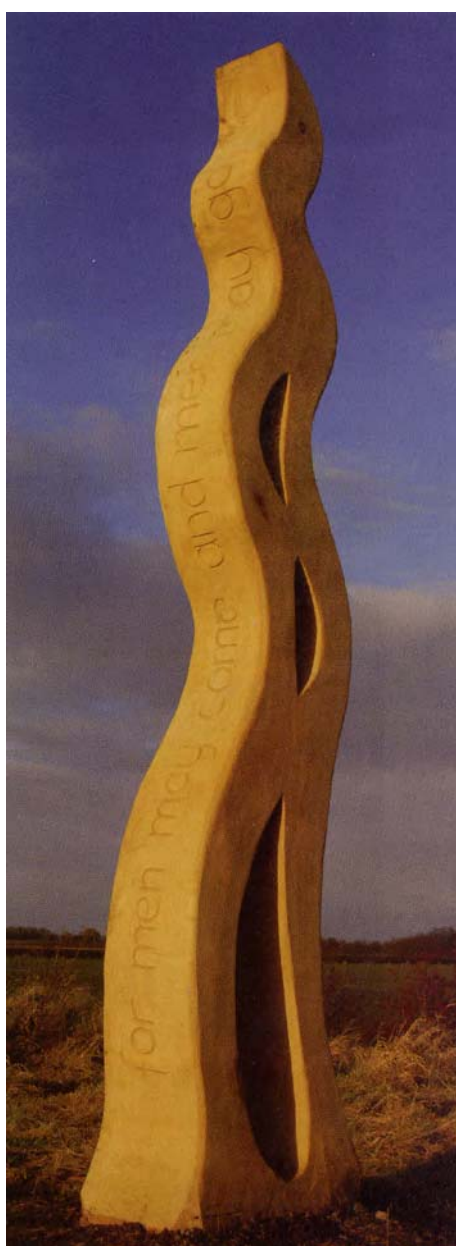
Canoeing

Canoeing is an excellent, sustainable and healthy way of exploring the area's waterways. Canoe hire could be established at 'clusters of activity' linked to cycle hire centres and waterside pubs.

The Lincolnshire Waterways Partnership has provided slipways or access points at West Pinchbeck, Surfleet, and Crowland. There are future opportunities at Guthram Gowt, Crossgate Bridge, Surfleet Seas End and at waterside pubs along the River Glen. On the River Welland canoe access should be provided at Peakirk, Deeping Lakes, Four Mile Bar and Spalding. Guided canoe camping trails are popular excursions with examples on the River Wye and the River Stour.



An example of existing signage which clutters this access point and conveys purely negative messages



River Pillar, The Water Rail Way
(Ref: *Our Vision for the Lincolnshire Waterways*, LWP, 2008)

Signage and interpretation

Good, clear signage is necessary to ensure the safe, responsible and informed use of waterway corridors. Effective signage can instil a sense of reassurance and familiarity with interpretation adding considerably to the enjoyment and educational values of a walk or ride. However, signage should not become intrusive. Levels of information need to be carefully balanced, highlighting opportunities rather than conveying a negative message.

There should be a co-ordinated signage strategy, with a review of existing signage on river corridor paths and trails. The strategy should aim to rationalise signage and develop a regional style for all trails and routes throughout the study area.

Types of signage

- Waymarker signage to indicate designated routes, trails and connections.
- Interpretative tactile signage at resting places.
- Informative signage, providing recommendations to users on safety and consideration for other users.

Public art

The direct Fenland trails, across at times a bleak landscape, are in need of punctuation points. Examples of public art can act as gateways, shelters, resting places or trailside features providing legibility, direction, interpretation or points of interest. Public art installations would highlight the waterways' identity and emphasise local distinctiveness.

The Lincolnshire Waterways Partnership has established a programme of public art along the Water Rail Way on the River Witham. Sculptures have included indigenous breeds of cattle, sheep and pigs together with associations with Tennyson. A similar approach should be undertaken for the Rivers Welland and Glen.

Angling

Angling is an important activity along the river corridors. However, it is understood to have declined in recent years, due to a loss of fish stocks, the rise of fishing lakes and changes in culture. An increase in boat activity helps disperse the fish and assists in restricting the growth of excess aquatic vegetation. The main concerns of anglers are the lack of fish stocking, decline in maintenance, dredging and weed clearance. They hope an increase in boating, walking and cycling will help improve both river and bank maintenance, although the potential for user conflict will need to be addressed. This underlines the importance of signage about responsible use and sharing of the resource by different users.



Wildlife, heritage and ecology are primary factors in the attractiveness of the rivers



Example of 'soft edge' pontoon installation, Forth & Clyde Canal



Opportunity to create a more biodiverse river corridor along the Macmillan Way

Landscape and Environment

Introduction

Wildlife, heritage and ecology are primary factors in the attractiveness of the rivers. Development proposals which aim to encourage greater use of the navigations for leisure and recreation need to complement measures which protect and enhance the environmental resource.

- The Water Framework Directive regulates most development and engineering works and should help to guide proposals.
- Identify opportunities for habitat enhancement throughout the river corridors.
- Encourage adjacent land use practices, which would enhance biodiversity.
- Ensure the biodiversity of the rivers is considered in the planning of waterway management and waterside developments.

The study of developing 'clusters' of new river activity at existing centres, will help to limit the impacts on the environment. All new riverside development should be subject to a rigorous assessment of environmental impact, to include habitat surveys and species audits with new moorings being developed to include landscape and ecological enhancement.

A balance between vegetation and the position of moorings is needed to ensure adequate provision for both. Following best practice in design and mooring construction, it is possible to create opportunities for habitat creation by standing pontoons away from the bank. This achieves a soft edge detail, which has a number of wider benefits, allowing marginal vegetation between the pontoon and bank and increasing boat security by restricting access to pontoons.

Habitat enhancements could include:

- Appropriate native planting.
- Combine wetland creation and marina development with flood alleviation measures in holistic landscape projects.
- Creation of new marginal habitat associated moorings, using soft bank protection techniques.

Opportunities for Landscape Enhancement

The following measures should be carried out within the context of the more extensive Fenland Waterway network:

A 'Green' Development Framework

Opportunities for enhancement and mitigation associated with specific development of river related activity should be assessed in the context of the whole of South Holland District as well as the river corridors. The network of habitats and green links is an important part of developing wildlife and recreation in the region. This may take the form of morphological improvements to channel profiles, reconnecting rivers to their floodplains, incorporating fish refuges into proposed structures and fish passages to connect rivers to side channels.

The River and Drainage Network's Role as Strategic Green Links

The Rivers Welland, Glen and associated drains act as 'green ribbons' on which to thread other semi-natural habitats. Enhancing green linkages with the river corridors will help to diversify the landscape's ecological potential and provide shelter belts along the trails and routes of the area. This can be achieved by encouraging agricultural practices to re-establish hedgerows, native woodland planting in field corners, wet woodland and contribute to the Wash and Fens Green Infrastructure Project and South Lincolnshire Fenlands Partnership.

The intervention of the proposed increase in the trail network, on-line moorings, new marinas and the anticipated development of the boating network will need to minimise disturbance to wildlife. The detailed planning of these areas and their future maintenance should aim to make a positive contribution to habitats and ecology of the area.

The Impact of Increased Boat Numbers

The impact of increasing boat traffic is likely to have an effect on the rivers' ecology, monitoring will be necessary to determine its impact on the ecological status of the rivers. A low level of traffic has been seen to increase biodiversity, by keeping the channel open for the greatest range of habitats, whilst a high level of traffic has a negative impact (Murphy, Wilby, Eaton 'Ecological Impacts and Management of Boat Traffic on Navigable Inland Waterways' 1995). The Association of Inland Navigation Authorities (AINA) has requested further detailed research on the effects and possible mitigation measures ('Safeguarding the Waterway Environment – Priorities for Research' AINA April 2005).

Further research is needed to assess the particular characteristics of both the fluvial and tidal rivers and the types of craft which will use them, in particular their methods of propulsion and hull shape.

Low impact boating

To reduce the impacts of increased boat traffic, the following measures should be addressed:

- 'Navigate with Nature' initiative is strongly focused on environmentally responsible canal boating and covers issues from oily bilge water and kitchen waste to the speed of travel, noise disturbance and the impact of wash on the waterway banks.
- A moorings policy which designates reaches for wildlife, where mooring is prohibited, has been trailed successfully on the Oxford Canal. Here boat numbers and movements far exceed those being proposed for the River Welland and River Glen. The shallow river profile close to the banks will assist this proposal allowing moorings to be developed at key locations.
- New hire fleets and freight vessels designed to reduce their environmental impacts where possible, particularly hull shape and propulsion. This aspiration could be the driver for a distinctive Fenland craft, enhancing the distinctiveness of these waterways.



The Spalding Water Taxi's fleet moored at their charging point at the Welland yacht Club



River trips are an important way of highlighting the attractiveness of a waterway corridor, Stratford Upon Avon



Example of Castle Narrowboats electric powered craft on the Monmouthshire and Brecon Canal

Electric Boats

The Spalding Water Taxi service runs a fleet of four electric boats. The advantages of electric propulsion are: boats are quiet (bringing you closer to wildlife, one of the main assets of the rivers), cleaner, reducing pollution on the waterway - no emissions or oil/diesel contamination of bilge water. Narrow boats are well suited to electric propulsion due to their low speeds, long thin hull shape and their carrying capacity for batteries. The depths of river navigations are usually greater than canals, which is an advantage as the greater the depth of water the less drag on the hull allowing for greater efficiency. This has to be balanced against the strength of fluctuating river flows and streams.

There are however, many examples of successful electric boats operated elsewhere, the Lake District, the River Thames and the Norfolk Broads, with examples of electric wide beam classroom boats in London and Birmingham.

A system of electric charging points should be developed across the whole of the Fens Waterway network. This could be viable for hire boats as cruising distances can be predictable. Installation of charging points could be implemented gradually through new developments and building on Spalding's existing electric water taxi service.

Solar powered electric boats (which do exist e.g. the River Thames) could be a step further to zero CO₂ emission. Diesel electric boats are a compromise solution, where a diesel generator is used to power an electric motor. The advantage of this method is that boats are able to charge themselves without the need for bank side charging points. Electric boating is a potential option with boat licences being discounted for electrically powered craft.

Electric Boats - Case Study

Castle Narrowboats in Monmouthshire, Wales, run two electrically powered 45 foot narrow boats on the Monmouthshire and Brecon Canal. As this canal is not yet joined to the main network, cruising is contained in the 33 mile stretch from Brecon and Pontypool. Charging boxes are accessible with a key at dedicated overnight moorings. Overnight charging makes use of the cheaper rate electricity and provides 240 volt power for other appliances on the boat.

Hull Design

With the expected numbers of new boats, a hull design which is more efficient and reduces wash should be investigated.



Example of litter and pollution control boat, River Tawe, Swansea

Dredging Debris Removal and Litter Clearance

Explore opportunity for provision of a purpose-built litter collection vessel as part of a wider partnership litter clean up campaign. The potential exists for a highly distinctive and contemporary boat design specifically for litter clearance, recycling and debris removal. Examples of such boats on other waterways are electrically powered.

A debris and litter management scheme should be launched in partnership with the local community and the Lincolnshire Wildlife Trust to ensure the vessel is used effectively.

'Water Watch' Campaign

Step up partnership to further develop the Water Watch Campaign and funding opportunities. The Campaign's aim is to bring about a sustainable reduction of litter and debris in the canals, rivers and watercourses.

'Watermark' Award

Step up partnership to further encourage local water side businesses to protect and improve their water frontage. The Watermark Award scheme gives recognition to businesses that protect and improve the waterside and take action to improve the quality of canals, rivers and watercourses.

Water Resources

Water resources within the study area are vitally important to agriculture. There is a concentration of water abstraction licences for spray irrigation in the area. The supply of water to maintain the resource to service agricultural requirements together with the development of the Fens Waterway Link needs to be investigated in-conjunction with Anglian Water's Water Resources Management Plan as part of the FWL development.

Water Quality

Water quality is another factor influencing the potential of the rivers and waterways.

- Proposals which present new opportunities for mixing of water qualities should be carefully considered.
- The management of existing discharges should be highlighted. This is important where outfalls may be submerged and/or where dilution flows may be affected by any proposals.
- The presence of any Combined Sewer Overflows (CSOs) is an important consideration. This is of particular relevance to the proposed siting of any marinas.
- Tests will need to be carried out to ensure the water is suitable for immersion sports.