Next Navigation East:

Part 1: Introduction

Contents:

1 Introduction and Background

1.1 Introduction

1.1.1 When opened in 1777 the Chesterfield Canal stretched from Chesterfield to West Stockwith on the River Trent. After a century of prosperity the canal declined in the face of railway competition and economic change. The collapse of the Norwood Tunnel in 1907 cut the canal in two; by the end of the First World War the western half, largely in Derbyshire, was reduced to a water supply channel. East of the tunnel the length from Kiveton Park to Worksop suffered a similar fate, but the section from Worksop to the Trent remained in traffic until the 1950's. By the end of commercial carrying the original 46 miles and 65 locks had been reduced to only 25½ miles and 16 locks.

1.1.2 Complete closure of this last navigable section was prevented by a vigorous public campaign and by the 1980's there was growing support for the restoration of the canal. During the 1990's restoration took place on both the eastern and western sides of the Norwood Tunnel. In Nottinghamshire the canal was restored from Worksop to Shireoaks and then through Rotherham to Kiveton Park. At the same time in Derbyshire the canal was restored from Chesterfield to Staveley. By 2003 a total of 37 miles and 52 locks were navigable; This left a 9 mile "missing link" between Staveley in Derbyshire and Kiveton Park in South Yorkshire (Rotherham Metropolitan Borough).

1.1.3 Since 2003 a series of feasibility and design studies (below) have been undertaken which demonstrate how this "missing link" can be reinstated and through navigation between Chesterfield and the River Trent re-established.

1.1.4 The missing link has been subdivided into two major project units to the west and east of Killamarsh:

- West: Staveley (Mill Green) to Killamarsh (Walford Road)
- East: Killamarsh (Walford Road) to Kiveton Park (East Portal)

1.1.5 This report sets out the proposals for the reinstatement of the **Eastern division from Killamarsh to Kiveton Park**.

1.2 Project Aims

1.2.1 Restore the Chesterfield Canal from Killamarsh to Kiveton Park to full navigation using, wherever possible, the historic route.

1.2.2 Protect, conserve and enhance the natural and built heritage of the canal.

1.2.3 Improve and widen all forms of public access to the canal.

1.2.4 Deliver sustainable economic and social regeneration of the canal corridor.

1.2.5 Employ the restoration and development of the Chesterfield Canal to improve the quality of life in surrounding communities.

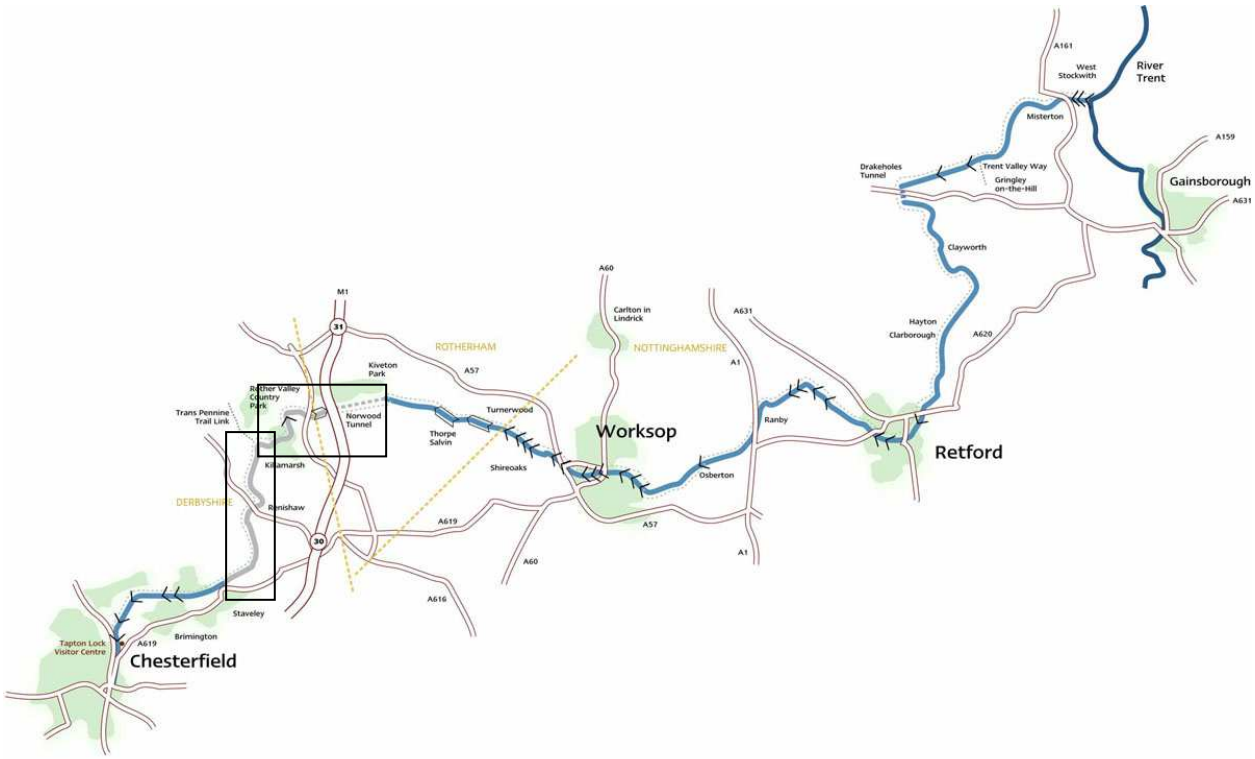

Figure 1: The Extent of the Chesterfield Canal: The boxes indicate the approximate position of the western and eastern project areas.

1.3 Project Promoters

1.3.1 The restoration of the Chesterfield Canal is promoted by the Chesterfield Canal Partnership (see below).

1.3.2 The lead partners (responsible bodies) for the restoration of the Killamarsh to Kiveton Park section are the Chesterfield Canal Partnership and Derbyshire County Council with the active support of the Chesterfield Canal Trust, British Waterways and Rotherham Metropolitan Borough Council. British Waterways will take the lead role for the Kiveton Park (Kiveton Waters) Section.

1.4 Project Delivery

1.4.1 The responsible body for delivering the restoration of the Chesterfield Canal from Killamarsh to Kiveton Park will be the Chesterfield Canal Partnership with the support of Derbyshire County Council.

1.4.2 The project will be managed by Civil Engineers from the Land Reclamation Section of the Consultancy and Contracting Division, Derbyshire County Council.

1.5 Historical Background

1.5.1 The Chesterfield Canal opened in 1777 and played an important role in the economic and social development of Chesterfield and North East Derbyshire. When it opened the canal ran for 46 miles from a wharf on the outskirts of Chesterfield to West Stockwith on the River Trent. The River Trent provided a connection with the rest of the UK Inland Waterways network.

1.5.2 Profitable for more than a century the canal gradually declined in the face of railway competition and by 1840's came into the ownership of what was to become the Great Central Railway. In 1892 parts of the route between Killamarsh and Chesterfield were diverted to make for the construction of the "Derbyshire Lines" of the GCR. This led to the abandonment of several sections of the original Brindley route. In Chesterfield access to the original wharf was lost and a new, smaller, basin was constructed further up the River Rother.

1.5.3 Notwithstanding these diversions, the canal continued to carry commercial traffic throughout its length until 1907. In October of that year the central portion of the Norwood Tunnel (at the canal summit between Killamarsh and Kiveton Park) collapsed severing the western and eastern lengths of the canal. The Great Central Railway company declined to repair the tunnel and through traffic ceased.

1.5.4 For a short time commercial carrying (largely coal, coke and tar products) continued on the isolated western section from Killamarsh to Chesterfield but this ceased entirely during the First World War. After that the western section from Chesterfield to Killamarsh continued to supply water to the Iron, Steel and Chemical works at Staveley and the Iron works at Renishaw. With the progressive decline of these works, and the development of piped water supplies, the canal further declined and by the 1970's several sections of the canal had been infilled. At Killamarsh housing was built upon part of the canal line and other sections were infilled to form public open space.

1.5.5 East of the tunnel the length from Kiveton Park to Shireoaks Colliery had no commercial traffic after its closure. Nonetheless, this length was essential as it brought water from the main reservoirs at Pebbly and Harthill to the operating section of the canal. It was therefore retained as a non-navigable feeder and over time the lock gates were removed replaced by weirs to regulate water-flow.

1.5.6 On the On the rest of the Eastern Section commercial carrying continued with cargoes of coal from Shireoaks Colliery, Bricks and Warp (dried silt used to polish cutlery) from Walkeringham and Misterton Brickworks, and grain and malt from Worksop and Retford.

1.5.7 With the end of regular commercial coal carrying in 1954 the length from Shireoaks Colliery to Worksop also eventually reduced to the status of a non-navigable feeder. The last commercial cargoes of bricks and warp (silt from the Trent) were carried from Walkeringham Brickworks around 1956. By 1964 only 25½ miles and 16 locks remained navigable and moves where made to close the remaining canal.

1.5.8 A vigorous local and national campaign was mounted to prevent closure and this was recognised in the 1968 Transport Act which established much of the current national waterways structure. The Act gave remainder status to the section from

Kiveton to Worksop and cruiseway status to the canal from Worksop to West Stockwith. Oddly the section from Chesterfield to Norwood is not mentioned at all and thus this section is technically still a canal having been neither remaindered or abandoned.

1.5.9 The Chesterfield Canal Society was formed in 1976 to promote the use of the canal and to campaign for its eventual restoration. In 1996 this became the Chesterfield Canal Trust.

1.5.10 With growing public support for restoration the Chesterfield Canal Partnership was formed in 1995 to bring together all the bodies with an interest in the restoration and development of the Chesterfield Canal to co-ordinate activities and pool expertise.

1.6 The Chesterfield Canal Partnership

1.6.1 The Chesterfield Canal Partnership is made up of local authorities, statutory and non-statutory bodies, the voluntary sector and private enterprise, and is fully committed to the protection, restoration and development of the Chesterfield Canal.

1.6.2 All members share the belief that the canal constitutes a major natural history and heritage feature with the potential to significantly enhance the recreational, tourism and business life of the region. The Partnership works to protect and enhance the natural history and historic value of the canal, whilst promoting the development of its business and amenity potential to benefit all sectors of the regional community.

1.6.3 Members of the Canal Partnership include:

- Chesterfield Canal Trust
- British Waterways
- Inland Waterways Association
- Bassetlaw District Council
- Chesterfield Borough Council
- Derbyshire County Council
- North East Derbyshire District Council
- Nottinghamshire County Council
- Rotherham Metropolitan Borough Council
- Environment Agency
- Natural England (formerly English Nature)
- Derbyshire Wildlife Trust
- Nottinghamshire Wildlife Trust
- Yorkshire Wildlife Trust

1.6.4 The Chesterfield Canal Partnership is a full member of the **Association of Inland Navigation Authorities** (AINA).

1.7 Restoration to Date

1.7.1 The principle that the complete restoration of the original line of the canal was technically feasible was demonstrated by the Halcrow study completed in 1996. Since then detailed engineering design work has been undertaken for the Worksop to Shireoaks, Shireoaks to Kiveton Park and Staveley to Chesterfield sections. These studies were subsequently implemented to produce the restorations opened in 2001 and 2003.

1.7.2 Led by British Waterways with the support of Nottinghamshire County Council and the Heritage Lottery Fund the section from Worksop Morse Lock to Shireoaks Marina (built using part of the former colliery loading basin) was reopened in 2001. Two years later British Waterways with the support of Rotherham Metropolitan Borough Council, English Partnerships and the Heritage Lottery Fund was able to return the section from Shireoaks to Kiveton Park and the western portal of the former Norwood Tunnel to navigation.

1.7.3 Derbyshire County Council with the support of the Chesterfield Canal Trust, the Waterway Recovery Group, Chesterfield Borough Council and the East Midlands Development Agency oversaw the restoration of the section from Chesterfield to Staveley (Mill Green) which was also fully reopened in 2003. A further short extension to Mill Green Wharf was completed by the Chesterfield Canal Trust in 2004.

1.7.4 Waterway Recovery Group and Canal Trust volunteers undertook extensive clearance at Renishaw in late 2006 and in 2007 repaired the gauging chamber and side weirs.

1.7.5 In 2008 Derbyshire County Council started work on three main road bridges in Staveley which blocked progress at Hall Lane, the Northern Loop Road and Eckington Road. Together with the link to Mill Green this will extend the canal by a further kilometre. The bridges were completed in late 2009, the link is due for construction in 2010. Funding has been secured for the construction of a small canal basin and associated visitor facilities at Staveley and construction is due to commence in Spring 2010.

1.7.6 2008 also saw substantial work commence at Renishaw where a 1 kilometre section of canal has been re-excavated and re-lined. This included reconstruction of the embankment over the Smithy Brook and construction of the “Renishaw Foundry Footbridge”. Works are in progress to construct wharf and wash walls and link the new section with the already cleared section. The Renishaw section divides the nine mile (14.5 km) gap between Staveley and Kiveton Park into two sections of three and four miles (4.8 and 6.4 km).

1.8 Prior Studies Contributing to these Proposals

1.8.1 The background to the Chesterfield Canal restoration project is outlined in **“2020 Vision: A Strategy for the Restoration and Development of the Chesterfield Canal”**. This summarises all the work undertaken to date and the Chesterfield Canal Partnerships objectives for the future.

1.8.2 The development of the Chesterfield Canal restoration strategy summarised in “2020 Vision” has been marked by several key studies: The engineering feasibility

of restoration from Chesterfield to Norwood Tunnel was demonstrated in a study by Halcrow (1996). The potential economic and social benefits were determined by Gibb Law (2001). Hydrology and water supply were examined by British Waterways (2002). The potential ecological impact of different options for restoration (across the entire 46 mile long canal) was investigated by Halcrow (2004). Alternative routes for the reinstatement of the canal through Killamarsh were subject to study by Jacobs Babtie (2005). A full list of key studies is given below.

1.8.3 The engineering design, archaeological and environmental studies for this proposal document were undertaken by two linked studies:

1.8.4 The **Chesterfield Canal Next Navigation I** project (2003-2005) which produced an integrated design solution for the restoration of the canal from Staveley to Killamarsh (DCC 2006). The Next Navigation study was funded by the Government Office for the East Midlands through the ERDF Objective 1 Programme.

1.8.5 The **Kiveton to Killamarsh Route Study** (2007-2008) undertaken by consulting engineers Arup. This produced an initial design study of the possible routes between Killamarsh and Kiveton Park. It was funded by Yorkshire Forward, managed by British Waterways and Derbyshire County Council.

1.8.6 Chesterfield Canal Strategy & Restoration Studies 1995 - 2003

Chesterfield Canal Reclamation Scheme. Derbyshire County Council, 1995.

Canal Restoration between Mill Green Bridge Staveley and the West Portal of Norwood Tunnel, Engineering Feasibility Study Final Report. Sir William Halcrow and Partners Ltd, 1995.

Economic Appraisal of Chesterfield Canal Restoration. Coopers and Lybrand, 1996.

The Rother Link: Report on the inspection of the River Rother with a view to creating a navigable link between the Chesterfield Canal and the South Yorkshire Navigations. Chesterfield Canal Society, 1996.

2020 Vision for the Chesterfield Canal – Bringing the Past into Focus for the Future. Chesterfield Canal Partnership, 1997, 2nd revised edition 1999.

Pre-Feasibility Study River Rother Link to Rotherham. British Waterways, 1997.

The Chesterfield Canal Corridor "A Plan for the Future". Bassetlaw Dist.Council, 1997.

Heritage Audit – Chesterfield Canal, Mill Green, Staveley to Norwood Tunnel, Killamarsh. Three Valleys Tourism Project, 1997.

Kiveton Colliery Rotherham – Waterspace Masterplan. British Waterways, DLA Landscape & Urban Design and Rotherham Metropolitan Borough Council, 1999.

Chesterfield Canal Design Guide. Chesterfield Canal Partnership, 2000.

Chesterfield Canal Economic Assessment Study – Final Report. Gibb Ltd in Consultation with Ian Derby Partnership , GFA Consulting & Fuller Peiser, June 2001.

Archaeological Assessment -- A Corridor Study of the Rother Valley and Chesterfield Canal. British Waterways 2002

Chesterfield Canal West -- Water Resources Study. British Waterways, 2002.

1.8.7 Chesterfield Canal Strategy & Restoration Studies 2004 to Present

Chesterfield Canal – Ecological Scoping Report. Halcrow Group Ltd., 2004.

Communications Strategy. Chesterfield Canal Partnership, March 2004.

Chesterfield Canal – Killamarsh Route Cost Benefit Study: Final Report. Jacobs Babtie (in association with Ecotec Research and Consulting), 2004.

Chesterfield Wharf: Realising the development potential of the canal corridor in Chesterfield. Chesterfield Canal Partnership, July 2004

Historic Structure Assessment of the Norwood Canal Tunnel, Chesterfield Canal. Structural Perspectives, 2004.

Staveley Town Basin: Some possibilities for the development of a canal basin and visitor facilities at Staveley, Derbyshire. Chesterfield Canal Partnership, Sept. 2004.

Killamarsh Green Access Route Design Study. Jacobs Babtie, 2005.

A Scoping Study of Alternative Routes for the Construction of a Navigable Link Between the Chesterfield Canal and the Sheffield & South Yorkshire Navigation. Laurence Hill & Sheffield Hallam University, 2005.

A61 / River Rother Corridor, Chesterfield: Planning Brief. Taylor Young, AGD Ltd., WSP Ltd. & Chesterfield Borough Council, Final Version August 2005.

2020 Vision: A Strategy for the Restoration and Development of the Chesterfield Canal. Chesterfield Canal Partnership, 2006 (3rd edition, completely revised).

Chesterfield Canal Access Strategy. Chesterfield Canal Partnership, 2006.

Archaeological Survey of the Chesterfield Canal between Staveley and Killamarsh. Chesterfield Canal Partnership, 2006.

Chesterfield Canal Next Navigation I: Staveley to Killamarsh an Integrated Design Study. Chesterfield Canal Partnership, 2006.

Archaeology and Heritage of the Chesterfield Canal at Renishaw. Chesterfield Canal Partnership, 2007.

Archaeology and Heritage of the Chesterfield Canal between Killamarsh and Kiveton Park. Chesterfield Canal Partnership, 2008.

Chesterfield Canal Kiveton to Killamarsh Feasibility Study. Arup Ltd., 2008.

1.9 Project Conventions and Terminology

1.9.1 Several conventions and terms are used throughout this document which require clarification;

Numbering of Structures

1.9.2 From the earliest days the convention in describing the canal is to work from Chesterfield to West Stockwith. In consequence canal mile numbers increase from 0 (on the site of the original basin) to 46 (at West Stockwith). Similarly bridge numbers increase as one travels further from Chesterfield. Where a new bridge has been inserted between two original bridges this is given the number Xa, where X is the number of the bridge nearest Chesterfield. Additional bridges are then lettered in sequence; b, c, d, etc. Where a new bridge entirely replaces an original structure (for example where the canal line has to be moved) then the original number may be

re-used. The same principles apply to lock numbers which again have their own sequence and increase away from Chesterfield. Following the original scheme culverts under the canal also have their own number series.

Naming of Locations and Structures

1.9.3 Location names are taken from the most recent Ordnance Survey 1:10,000 map data. Where a location is not named on the Ordnance Survey map local names are used with qualification.

1.9.4 Structure names are generally those in most common usage. Where new structures are proposed on original sites these will inherit the original name derived from historical records. Entirely new structures will generally have names based on local topographic features. The names proposed in this report are entirely arbitrary and can be modified to incorporate the views of local communities.

Canal Track, Canal Corridor, Canal Landscape

1.9.5 In prior studies (e.g. Halcrow, 2004) the canal corridor was simply defined as all land within 500 metres of the canal; this is too broad for detailed study and here three nested terms are used to refer to the land along the canal with the following specific meanings:

1.9.6 The Canal Track: This is the route of the existing canal or, where new construction is required, the proposed route. It includes (a) the off-bank (the non-towpath bank of the canal including verges), (b) the canal channel and (c) the towpath bank (including the towpath and verges). The width of the canal track makes due allowance for structures (e.g. embankments), fencing or hedging along both sides of the track and for any land which will be required to provide permanent access to undertake routine maintenance of the canal channel and structures. The exact width of the Canal Track varies according to location and the nature of the canal structures but is generally around 15 to 20 metres. The Canal Track is the area where disturbance due to restoration is at its greatest. The Canal Track is also that area where ongoing maintenance of the canal will take place and for which there is requirement to prepare detailed ecological management plans.

1.9.7 The Canal Corridor: This is the land which lies within 500 meters of the Canal Track. The corridor is the setting of the canal and governs the local landscape character through which the Track passes. Only those areas of the corridor which are immediately adjacent to the Canal Track are likely to be effected by restoration although some more distant areas could be affected by temporary construction access. Such activities are restricted to the construction period. Long term management of the corridor is a matter for the landowners and their tenants although in key locations some form of environmental partnership or management agreement may be considered desirable. It should be noted that British Waterways adopt a narrower limit of 300m for the Canal Corridor.

1.9.8 The Canal Area (or Landscape): This is the wider landscape surrounding the Canal Corridor. This determines the landscape character of the area and provides the environmental context for the canal. The landscape may be loosely defined as that land extending up to 2 to 3 km beyond the Canal Corridor although the boundaries

are deliberately fuzzy to emphasise the open nature of environmental systems. The distribution of wildlife sites in this wider context is extremely relevant to planning for ecological mitigation, compensation or enhancement particularly with regard to providing wildlife corridors between sites.

Canal Section and Canal Length

1.9.9 The restoration proposals are broken into a series of key sections. Each section is a rational unit which will provide amenity, conservation or economic benefits in its own right.

1.9.10 The Key Sections are:

Western Division

Restoration Section 1	Staveley Town
Restoration Section 2	Doe Lea Valley
Restoration Section 3	Renishaw
Restoration Section 4	Railway Mile
Restoration Section 5	Killamarsh West

Eastern Division

Restoration Section 6	Killamarsh Town
Restoration Section 7	Killamarsh East
Restoration Section 8	Norwood
Restoration Section 9	Wales
Restoration Section 10	Kiveton Park

1.9.11 Each restoration section is further sub-divided into a series of arbitrary lengths. Each length is a portion of the canal which shares a similar structure, substrate, vegetation and/or current land management. The lengths are a convenient way of sub-dividing and managing the restoration works.

1.9.12 These project lengths may be achieved alone or may be grouped to form larger bids depending upon the funding sources being approached. This flexibility allows the Chesterfield Canal Partnership to take advantage of funding opportunities as they arise but still achieve a co-ordinated outcome. Smaller sections or lengths are inherently more achievable with volunteer labour and resources and also foster a sense of achievement upon completion. The intention is to bring each section forward as funding permits.

Other Terminology

1.9.13 Other terms used are defined upon first use and repeated for ease of reference in a **Glossary** appended to this report.

References

1.9.14 To avoid repetition all references are given as a collated reference list at the end of the volume.