

DROITWICH CANALS CONSERVATION MANAGEMENT PLAN



PREPARED ON BEHALF OF BRITISH WATERWAYS

July 2009

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Appendices

- A1** British Waterways, *Droitwich Canals Conservation Plan*, April 2004
- A2** British Waterways, *Droitwich Canals Heritage Survey*, 2000, updated 2004
- A3** British Waterways, *Heritage Policy and Principles*, 2008
- A4** British Waterways, *Environmental Policy*, 2008
- A5** British waterways, *Towpath Mowing Guidelines*, 2007
- A6** British Waterways, *Droitwich Canals Biodiversity Action Plan*, 2009

1.0 INTRODUCTION



- 1.1 The Droitwich Canals restoration is an ambitious project involving the return to full navigation of two linked historic inland waterways, the Droitwich Barge and Junction Canals (now collectively known as the Droitwich Canals). When fully restored the canals will link the Worcester & Birmingham Canal to the River Severn, thereby creating a new 21 mile cruising ring. The project is being promoted by the Droitwich Canals Restoration Partnership (hereafter the DCRP) a body comprising statutory, voluntary and private organisations formed to secure the restoration of the waterway. British Waterways (hereafter BW) has responsibility for the delivery of the restoration project on behalf of the DCRP, and will be responsible for the subsequent management of the waterway following restoration.
- 1.2 This Conservation Management Plan (hereafter CMP) was commissioned by BW in March 2009 on behalf of the DCRP, and has been prepared by CgMs Consulting. It draws on the pre-existing Conservation Plan that was prepared in 2004 by BW as part of the Heritage Lottery Stage II funding bid, and has been used as a basis for the restoration works. The CMP builds on the Conservation Plan, and is intended as a strategic document that sets out the broad framework for the long-term conservation-led management of the Droitwich Canals. As such it will be used to guide all decisions concerning the future management and maintenance of the canals after the restoration is completed. The CMP has been endorsed by all partners.
- 1.3 The CMP is informed by internationally developed approaches to conservation management planning, and the specific guidance of the Heritage Lottery Fund. It also draws on good practice previously developed elsewhere on the canal network by BW in managing vulnerable historic waterways. It should be noted that the CMP has been prepared during the course of restoration of the Droitwich Canals, and that various detailed technical studies, including the updated Heritage Survey, have informed its preparation.

Project Vision

- 1.4 The Vision of the Droitwich Canals Restoration Partnership is:

'To create a linear park centred on the restored Droitwich Canals which will seek to conserve and enhance the natural and built environment and provide a range of informal recreational opportunities for local people and visitors, thereby generating economic benefit and contributing to the well being of the people of Worcestershire.'

- 1.5 Fulfilling this vision has involved the support and participation of a wide range of local and national organisations during the course of the restoration project. Engagement and dialogue with all these key bodies will continue after restoration is completed.

Description and geographical extent of the Droitwich Canals

- 1.6 The Droitwich Canals consist of 2 linked historic waterways forming a linear east-west route of some 7.5 miles in length, centred on the town of Droitwich, Worcestershire. The canals were both developed to serve the town's salt trade, but were constructed at different times, and are therefore of quite different character. The canals lie within the catchment of the River Salwarpe. Figure 1 shows the location and extent of the canals.
- 1.7 The oldest of the 2 canals is the Droitwich Barge Canal which dates from 1770-71. It was built to enable 'wich barges' (smaller versions of the Severn trow) to navigate from the River Severn at Hawford Lock to the heart of the salt production area of Droitwich, the canal's original terminus. The Barge Canal was built at the beginning of the Georgian canal building era and is an example of a 'contour canal', with broad locks, needed to accommodate the width of the 'wich barges'. It is 5.5 miles long and has a total of 8 locks along its length.
- 1.8 By contrast, the Droitwich Junction Canal, built in 1854, was one of the last canals to be built in England. It connected the Droitwich Barge Canal with the Worcester & Birmingham Canal at Hanbury Wharf. It is 1.75 miles long, originally contained 7 locks, and in contrast to the Barge Canal, is narrow in width. Both canals were officially abandoned in 1939.

Purpose of the CMP and intended readership

- 1.9 The Droitwich Canals constitute a large, complex and vulnerable heritage asset. The restoration scheme is comprehensive and will leave the majority of the historic fabric along the canal corridor in good order. It is essential that once the restored canals are re-opened for navigation, day-to-day management is carried out in an informed manner that maintains this sound physical condition, and ensures that subsequent pressures for change do not result in damage or degradation of the heritage asset. The CMP therefore seeks to recognise all aspects of the special heritage significance of the canals, and to put in place a clear set of management principles to ensure that the canal corridor's heritage significance is conserved in the long term. The key purpose of the CMP is to guide decisions concerning the future management and continuing maintenance of the canals, and in so doing to reconcile potentially conflicting values and interests.

- 1.10 The CMP has been prepared primarily for the benefit of all those individuals and organisations who will have a direct involvement in the management, maintenance, and future use of the canals. In practice the key users of the plan will be BW's operational managers, together with staff in other key statutory bodies who have a role in the day-to-day management and maintenance of structures and land associated with the canals. The document should be used as a reference point by those responsible for the continuing management of the waterway after restoration. The CMP will also be of relevance to volunteers and other stakeholders with an interest in the long-term future of the canals.

Scope, structure and content of the CMP

- 1.11 The scope and content of the CMP is informed by an understanding of the specific issues arising from the restoration and management of the Droitwich Canals, and the needs of those who will use the document. The structure of the document complies with the specific guidance of the Heritage Lottery Fund (hereafter the HLF), whose funding conditions require the preparation of a CMP.
- 1.12 The CMP addresses the key aspects of managing the Droitwich Canals, which constitute a large, complex and vulnerable heritage asset. The principal components that make up the heritage interest of the canals include built heritage, archaeology, ecology, biodiversity and landscape. These components will potentially be impacted upon by necessary engineering works and repairs, and routine maintenance operations. Additionally, there is likely to be increased pressure for access and recreational use of the canals by a wide range of people as a result of restoration. These issues are summarised in Section 3. Contamination and water supply are largely outside the remit of this plan. However, these issues are relevant in the context of sustaining and enhancing the biodiversity of the canal, as well as the stability of the buried archaeological resource at Vines Park, and are therefore referred to in the relevant sections of the CMP.
- 1.13 The aim of the CMP is to provide clear and practical guidance across a wide range of topics, while remaining a focused strategic document. The CMP is therefore arranged as a succinct 'front end' document supported by and referring to appendices that contain comprehensive and detailed technical information and guidance. For example, the Droitwich Canals Heritage Survey at Appendix A2 is a comprehensive survey of all of the built heritage features along the canal corridor. The main body of the CMP, and the key management principles and policies will, once adopted, remain unchanged until major review. However, should additional or updated information become available, for example in relation to heritage survey or biodiversity data, the relevant technical appendices are capable of augmentation and revision. BW, as the overall waterway manager, will be responsible for any updating of technical appendices should this be required.

Relationship of the CMP to other documents and plans

- 1.14 The CMP has an important relationship with other plans pertaining to the regeneration of the Droitwich Canals and surrounding area. It augments the existing Droitwich Canals Conservation Plan produced in 2004. The CMP also has a close relationship with the Droitwich Canals Supplementary Planning Guidance prepared by Wychavon District Council in partnership with British Waterways, Worcestershire County Council, The Waterways Trust, and adopted in 2004. This document aims to amplify local plan policies and sets out a framework for development at six key sites along the canal corridor. It aims to provide an overall vision for waterside regeneration and sustainable development that is supported by

the partnership, stakeholders and the local community. A list of related documents is provided in section 9.0.

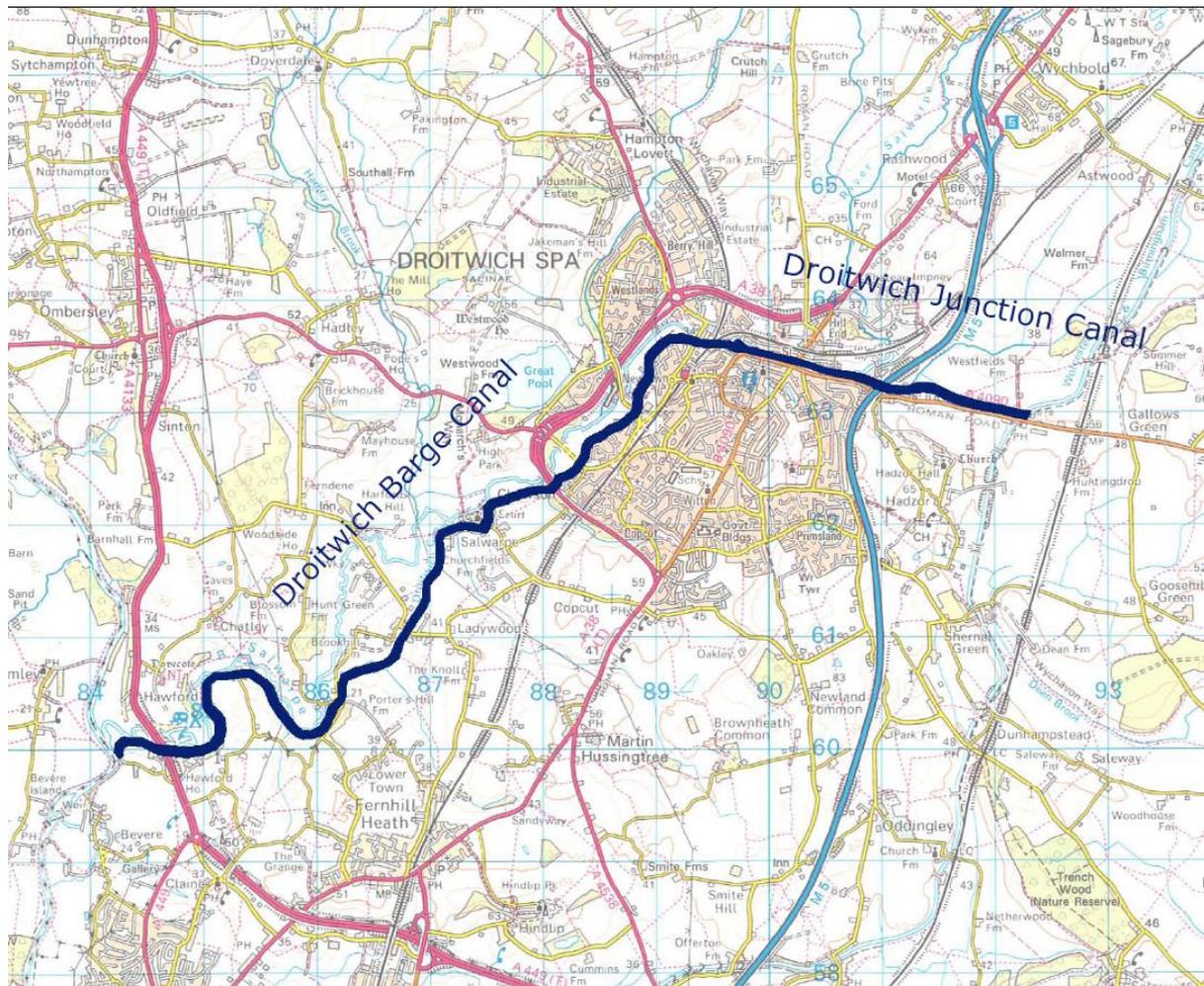


Fig. 1: The location and extent of the Droitwich Canals

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2.0 PEOPLE: MANAGERS, STAKEHOLDERS, AND THE COMMUNITY



- 2.1 This section of the CMP identifies the key organisations and groups that have a role to play in the long term management of the waterway. The key players are those who will be responsible for the day-to-day management of the waterway after restoration, the principal statutory bodies, and individuals and groups who will be regular users of the canal corridor. Ongoing engagement with, and dialogue between, these groups will be vital to the conservation and continuing vitality of the waterway.
- 2.2 BW has been responsible for implementing the canal restoration on behalf of the DCRP, the steering body for the restoration project. This body includes the main statutory bodies and key stakeholder groups with an interest in securing the management of the canals as a heritage resource. The DCRP comprises the following members:
- The Waterways Trust
 - British Waterways
 - Droitwich Canals Trust
 - Wychavon District Council
 - Worcestershire County Council
- 2.3 Whilst it is not envisaged that the DCRP will continue as a formal group after the restoration project is completed, there will continue to be an informal partnership to facilitate collaboration and dialogue between key stakeholders. Key members of the partnership will assume differing roles and responsibilities. Following restoration, the land comprising the canal, the towpath and the immediately associated areas will pass to BW, who will be responsible for its day-to-day management and maintenance thereafter. Responsibility for maintenance of the bridges, with the exception of Linacre Bridge will lie with Worcestershire County Council. The County Council will also be responsible for maintaining rights of way, which includes the

greater proportion of the canal towpath. Wychavon District Council will be responsible for managing the 'Gateway Site', the principal public access point for the canals, located close to the Rugby Club off Hanbury Road, Droitwich. The District Council will also continue to be responsible for the management of Vines Park, a canalside public park in the historic centre of Droitwich.

3.0 THE HERITAGE SIGNIFICANCE OF THE DROITWICH CANALS



Historical background

- 3.1 The presence of natural brine springs in Droitwich has been a factor in the town's human settlement from very early times. The first known evidence of salt production in the town dates from the Middle Iron Age, and significant Late Iron Age archaeological evidence has been found in the form of large clay and timber lined tanks associated with salt production. Salt production continued to be important in Roman times, and archaeological remains associated with the extraction of brine from that period have been found in the vicinity.
- 3.2 The importance of Droitwich and its salt industry continued throughout the mediaeval period as evidenced by documentary sources and archaeological finds, particularly in the area of the present day Vines Park, which was the site of the Upwich Pit. Throughout the medieval period, rights to produce salt could only be passed on by inheritance. However, in 1695 this monopoly was successfully challenged and, as a result, salt production dramatically expanded.
- 3.3 As a result of Droitwich's burgeoning salt industry in the post mediaeval period, the need for improved transportation increased. In 1703 and 1747 bills were presented to parliament to make the River Salwarpe navigable, but these were unsuccessful. However, pressure for improved transportation increased when in 1727 deep borings were made to expose stronger flows of brine, and salt output dramatically increased. After various attempts to secure water transportation, it was only in 1767 that the Droitwich Borough appointed the eminent canal engineer James Brindley to survey a route for a canal link from the River Severn to Droitwich. The Droitwich Canal Act was passed in 1768 and construction commenced.

- 3.4 The Droitwich Barge Canal was one of the earliest to be built in England during the 'Canal Age'. It was typical of Brindley's work in following the contours of the land and was one of the few canals to have been completed in his lifetime. The canal was constructed as a broad canal to enable navigation by larger boats known as 'wich barges', smaller versions of the Severn trow. It was opened in 1771.
- 3.5 The pre-eminent position of Droitwich in the salt trade began to decline in 1828 when a new source of brine was developed at Stoke Prior to the north of the town. This impacted adversely on the viability of the Barge Canal. Additionally the arrival of the Birmingham and Gloucester Railway in 1841, and the Oxford, Worcester and Wolverhampton Railway in 1851 resulted in competition to the canal for servicing the salt trade, and caused further decline. In an attempt to revive trade on the Barge Canal, a new link canal was constructed in 1854 connecting the Barge Canal to the Worcester & Birmingham Canal at Hanbury. Designed by James Boddington, the engineer for the Worcester & Birmingham Canal, the Droitwich Junction Canal was constructed as a narrow canal, and was one of the last canals to be built in England. In association, locks on the Barge Canal were lengthened to enable use by the longer narrow boats.
- 3.6 Despite the efforts to revive the fortunes of the canals, they eventually fell into decline. The last commercial barge to use the canals was in 1916, and salt production in Droitwich ceased in 1922. Thus the canals became redundant and were formally abandoned by act of parliament in 1939. In 1973 the Droitwich Canal Trust was formed. Table 1 summarises the chronology of historical events on the Droitwich Canals.
- 3.7 In summary, it can clearly be seen that the Droitwich Canals played an important role in the development of Droitwich and its salt industry during the industrial revolution. Together the Droitwich Canals are significant in historical terms. They are a tangible manifestation of the salt trade for which the town of Droitwich was famous. Individually the canals are historically significant. The Barge Canal is significant as a very early example of a broad canal built at the start of the Canal Age, and one of the few of Brindley's canals to have been constructed during his lifetime. By contrast the Junction Canal is significant as a very late example of canal to be built at a time when the railways had already started to become dominant.

TABLE 1: Chronology of The Droitwich Canals

Year	Event
1768	January, Act to build the Droitwich Canal passed. Lock size 64' by 14' 6"
1768	June, work started
1769	First recorded use of roller bearing turntables for swing bridges made by Dale Foundry Dalebrook, Ironbridge
1770	Strike by labourers at Ladywood lock complaining of harsh conditions
1771	March, Droitwich Canal opens
1791	Worcester & Birmingham Canal Act passed. Droitwich Company guaranteed share value
1806	Towing path created for use of horses
1810	W&B took over management of Droitwich Canal
1821	W&B ceased to manage Droitwich Canal
1841	Birmingham & Gloucester railway opened
1852	Act to build Droitwich Junction Canal passed
1853	W&B leased Droitwich Canal
1854	Junction Canal opens (including construction of the "Barge" lock)
1854	Barge Canal locks lengthened 71' 6"
1874	SND took over W&B canal and thus also Droitwich Barge and Junction Canals
1875	SND carrying out improvement works to it's new acquisitions including repairs 1876 to the Barge lock affected by subsidence
1918	Last trade on Barge Canal
1928	Last trade on Junction Canal
1939	Droitwich Canals Act of Abandonment
1968	Clearance work started on the Barge Canal, by volunteers
1973	Droitwich Canals Trust formed

Notes:

- W&B = Worcester & Birmingham Canal
- SND = Sharpness New Docks & Gloucester and Birmingham Navigation Company
- Droitwich Canal - also known as 'The Barge Canal'

Built Heritage

- 3.8 Although the canals were abandoned in 1939, and parts of the line were eventually lost to development or blocked by road crossings, the majority of the waterway survived, including the locks, weirs and most of the bridges. The Droitwich Canals therefore contain many built heritage features that reflect the historical significance of the waterway.
- 3.9 In the case of the Droitwich Barge Canal, the majority of the locks, weirs and bridges can be attributed to James Brindley, who was responsible for the canal's design. All of the locks were lengthened in 1854. There is visible evidence of this lengthening on locks 7 and 8, which both have second cills at different levels, as well as visible differences in their brickwork and copings. On locks 1-6 the alterations are less visible but still discernible in the chamber brickwork. This group of structures as a whole represents an important built heritage resource. As such it is important that its significance is recognised by sensitive conservation-based future management.
- 3.10 The Junction Canal was of comparatively late construction, coming towards the end of the canal era at a time when railways had already begun to overhaul canals for transporting goods. The late date of the canal is reflected in some significant engineering innovations, for example the Hanbury locks, which are notable for considerable depth, and unity of design. Unusually all the locks are of exactly the same depth (10' 3"), which was intended to aid water management. All were built with water-conserving side ponds. As such they can be regarded as the pinnacle of narrow lock engineering and design.
- 3.11 Only a relatively small proportion of the built heritage features of the canals are statutorily protected through listing. However, many of the other structures are of high heritage value, particularly the original Brindley locks, bridges and weirs. A detailed survey of built heritage features on the canals was undertaken by BW in 2000 and updated in 2004, and is included as appendix A2 to this CMP. In recognition of the heritage value of the canals, Wychavon District Council has designated two linear conservation areas covering the whole of the canal corridor. The first conservation area was designated in September 1975, and is called the Droitwich Canal Conservation Area. It covers all of the Barge Canal from its junction with the River Severn at Hawford as far as, but excluding, Vines Park. The other conservation area, called the Droitwich Link Canal Conservation Area was designated in 1987, and covers the whole of the remainder of the canal corridor running through Vines Park as far as the Worcester & Birmingham Canal at Hanbury Junction. The location of listed buildings and the extent of the conservation areas are indicated in Figure 2.

Archaeology

- 3.12 The line of the Droitwich Canals contain a number of archaeologically important sites. Most notably the waterway passes through an archaeologically rich part of Droitwich that was once at the centre of the historically important salt industry. The archaeological importance of this area, is recognised in the designation of part of the town centre, known as Vines Park, as a scheduled ancient monument. This area contains important buried remains of the salt industry dating back at least to mediaeval times. The extent of the scheduled ancient monument is indicated in Figure 3. Other areas adjacent to the canal, although not protected by scheduling also have archaeological potential, in particular the site of the former Rover garage to the east of Vines Park.

- 3.13 Elsewhere the canals pass through areas of known archaeological potential, most notably an number of small village settlements, e.g. Salwarpe, where there may be buried archaeological remains. The archaeological potential of the Droitwich Canals has been identified in the Archaeological Desk Based Assessment carried out by Worcestershire County Council in 2004. This assessment has been augmented by a number of subsequent targeted archaeological investigations that have increased the understanding of the buried archaeological potential of the canals.

Biodiversity

- 3.14 In terms of ecology and biodiversity the Droitwich Canals, including the banks, towpath verges, hedgerow boundaries, built structures, and the adjacent ponds, feeders and streams, represent an important resource, providing a diverse range of habitats and containing a rich flora and fauna. The canals and their channel constitutes an important stretch of open water within a landscape otherwise dominated by agriculture and urban areas. They form a linear mosaic of habitats including woodland and scrub edges, hedgerows, flower-rich towpath verges, and linear reedbeds. The slow flowing waters and managed water levels provide a distinctive environment. The River Salwarpe and the canals frequently run a close parallel course, effectively widening the wetland corridor and its associated habitats. The side ponds, winding holes, locks, weirs and open lengths of water add to the diversity of the habitat. The biodiversity interest of the canals is outlined in detail in the Droitwich Canals Biodiversity Action Plan (BAP), which is included at Appendix A6.. The key components of biodiversity interest are summarised below.
- 3.15 The waterway banks and margins of the canals provide a continuous linear corridor habitat containing a range of vegetation types including tall emergent plants to land plants higher up the banks. These banks are especially important for biodiversity, and provide a range of habitats for a variety of wetland birds, mammals and invertebrates. Through natural succession, many of the canal verges have become dominated by brambles and nettles or taken over by scrub. This mosaic of habitat provides shelter for a wide range of animals and foraging habitats for predatory animals such as buzzards.
- 3.16 Amongst the animal species known to be present in and around the canals are water vole, otter, slow worm, grass snake and great crested newt, which is identified as a European protected species. Bird species found to be present in the vicinity of the canals include reed warbler, bullfinch, linnets, reed bunting, song thrush, spotted flycatcher, turtle dove, blackbird, dunnock, goldfinch, green woodpecker, kestrel, kingfisher, lesser black backed gull, lesser spotted woodpecker, starling, stock dove, swallow, water rail and yellowhammer.
- 3.17 The Barge Canal and River Salwarpe are noted for supporting saline habitats that are more commonly associated with coastal locations, and therefore unusual in this inland situation. They support a number of locally uncommon species, including halophytic (salt loving) plants such as wild celery and fish such as the ten-spined stickleback.
- 3.18 Much of the canal is lined with common reed, which extended to an area of approximately 6.8 hectares whilst the canal was in a redundant state and formed the second largest reed bed in Worcestershire. Reed bed is nationally and locally rare and supports a wide variety of bird and invertebrate species. Although the restoration project results in the loss of approximately 2.5 hectares of existing reedbed within the canal channel, an equivalent area of new reedbed has been created adjacent to the canal at Salwarpe as mitigation.

Landscape

- 3.19 The Droitwich Canals lie within a locally distinctive landscape characterised by two distinct main elements; the gently undulating topography and the meadow land surrounding the River Salwarpe contrasted by the urban landscape of the town of Droitwich itself, which constitutes a distinctive element in the local landscape.
- 3.20 Within the overall landscape represented by the two principal elements described above, a number of sub areas have been identified by BW in its Droitwich Canals Landscape Character Study (2003). This defines eight local character zones along the canal corridor, each with its own locally distinctive character. These character zones have been used as a basis for heritage management zones, which are discussed in detail in Section 6 of this document.

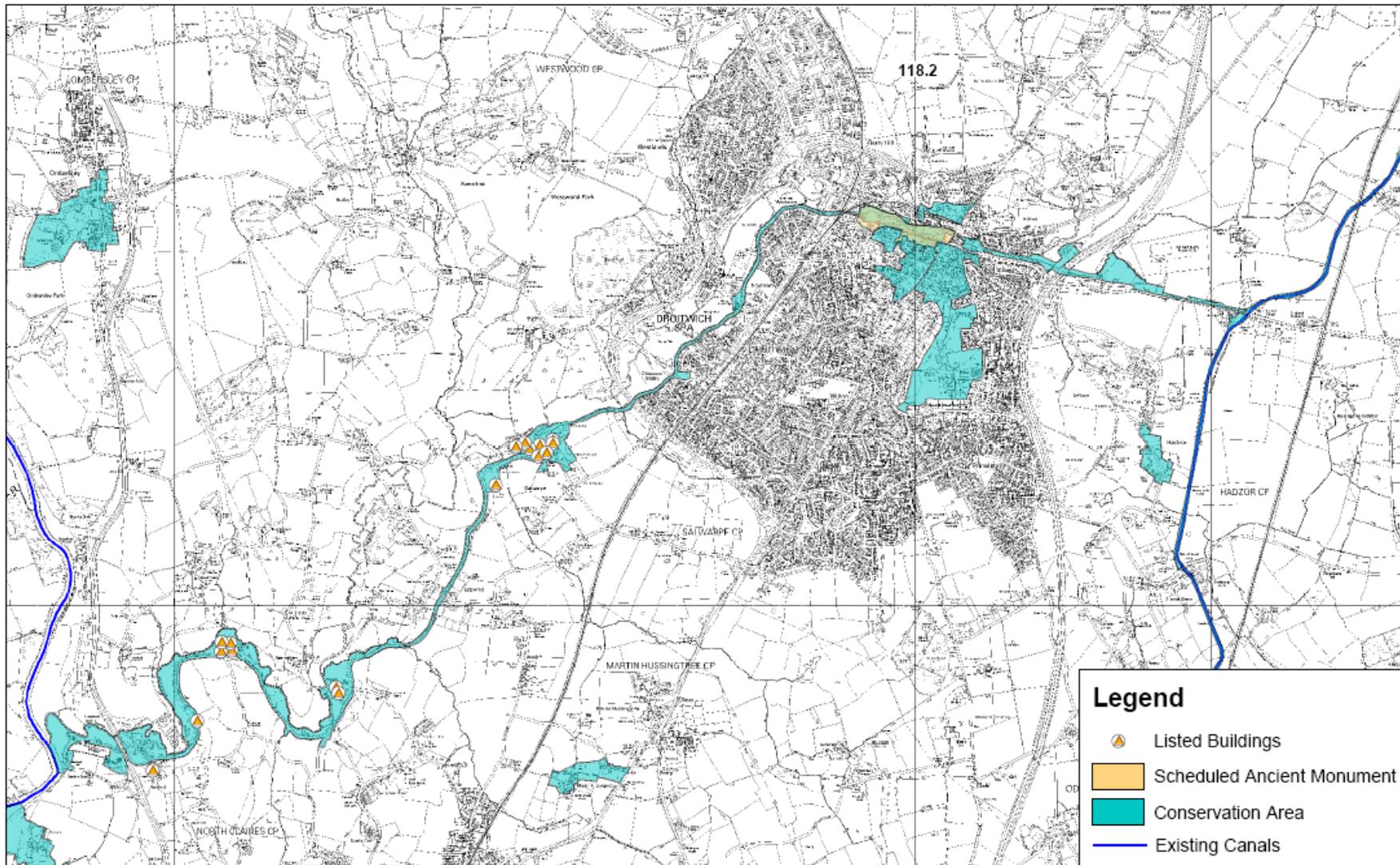


Fig. 2: Droitwich Canals - Listed Buildings and Conservation Areas

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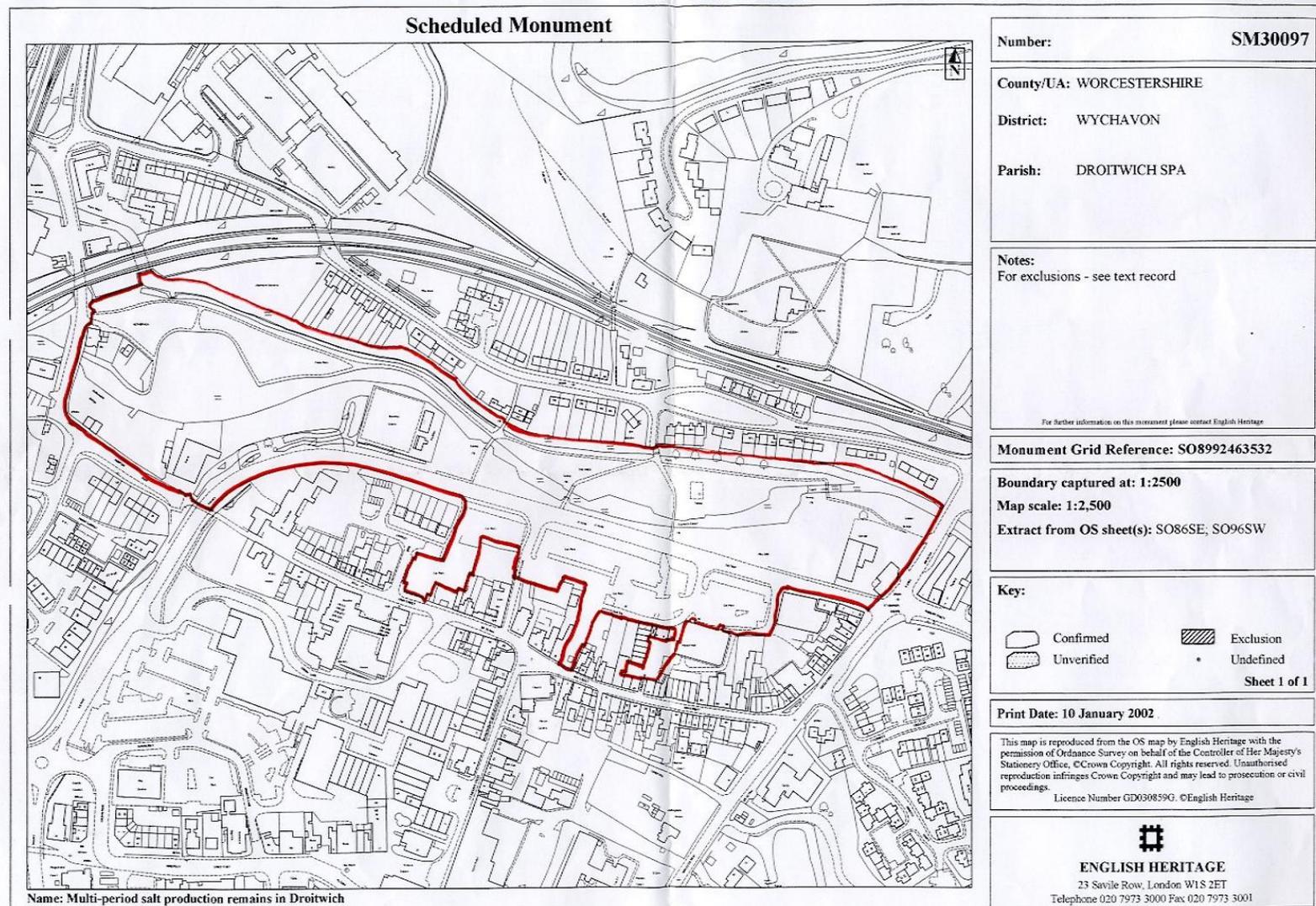


Fig. 3: Extent of the Scheduled Ancient Monument in the Vines Park/Netherwich Basin area
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4.0 MANAGEMENT ISSUES: VULNERABILITIES, CONFLICTS, AND OPPORTUNITIES



- 4.1 This section of the CMP sets out the potential management issues facing the Droitwich Canals. In particular it highlights how the special significance of the canals might be at risk or vulnerable as a result of various pressures or interventions, and how differing management activities might be in conflict. This includes necessary maintenance work to the canal and its structures, as well as works to facilitate access for all, works to provide amenity and the conflicting demands on the canals and associated land by a variety of user groups. Parts of the canals, especially in the urban area such as Vines Park, are vulnerable to damage through vandalism. The section highlights the issues that need to be addressed in order to secure a long term sustainable future for the canals, as well as identifying opportunities for enhancing the canals as a heritage asset.
- 4.2 Whilst the heritage interest of the canals is potentially vulnerable in a number of ways, the restoration and subsequent conservation-led management of the canals also presents a range of opportunities for enhancement both in terms of cultural heritage and the natural environment. Management of the canals will ensure that heritage assets continue to be maintained and habits are safeguarded and improved.
- 4.3 Dealing with these issues, and optimising the opportunities arising from the restoration of the canals clearly represents a challenge for continuing management of the waterway. This section therefore forms the basis for policies and standards and procedures designed to conserve and enhance the significance of the canals set out in the next section of the CMP. The key management issues, vulnerabilities and conflicts can be summarised as follows:

Built Heritage

- wear and tear to bridges, locks, canal walls, towpaths, and other canal features through use
- physical damage to bridges, locks, canal walls, towpaths, and other canal features as a result of vandalism and accidents
- damage to heritage significance resulting from inappropriate/poor quality repair techniques and materials
- potential pressure for health and safety improvements, e.g. provision of safety barriers
- impact on the setting of historic features from new development generated by the restored canals

Archaeology

- impact of engineering operations (e.g. dredging and piling) on below ground archaeological features, particularly in the Vines Park area
- impact of changes in hydrological conditions on buried archaeological remains, particularly in the Vines Park area
- damage to archaeological deposits resulting from maintenance and repair of the canal and associated features
- impact of restoration, maintenance and subsequent repairs on buried industrial archaeology
- impact on archaeological deposits resulting from new development generated by the restored canals

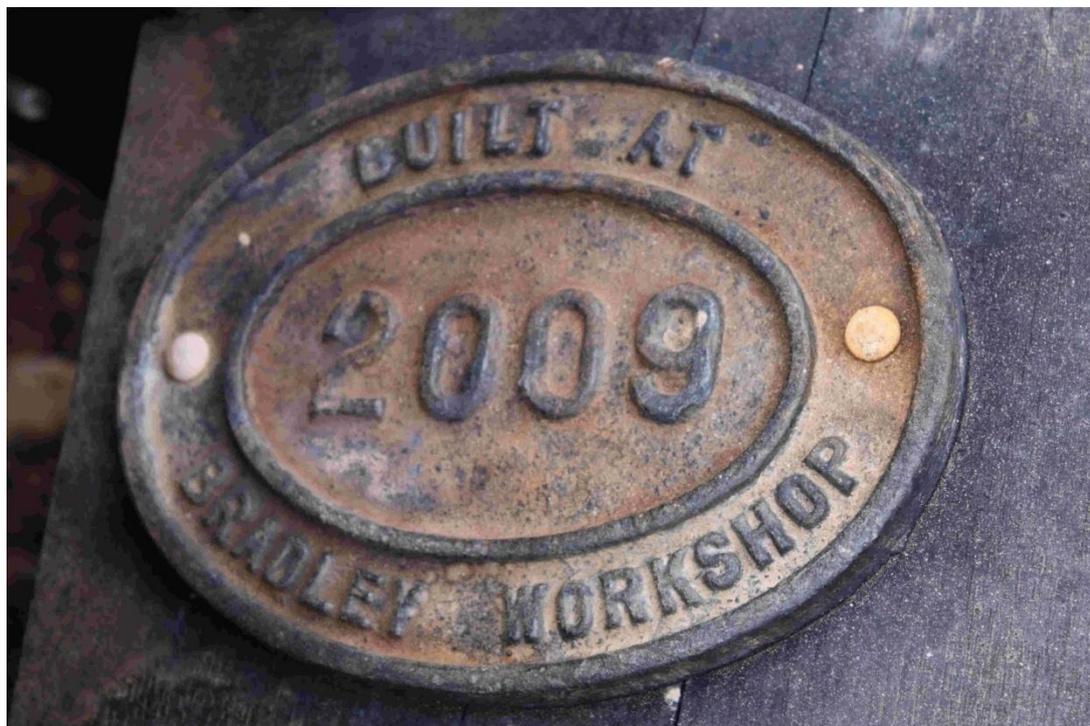
Biodiversity

- impact on marine aquatic/saline habitats from increased use by boats
- impact on species associated with the reed-beds that have established during the period of non-use of the canals
- spread of invasive/nuisance plants (e.g. Japanese knotweed, Himalayan balsam)
- introduction of non native species (zander, etc) resulting from re-connection of the canals with adjoining waterway network following restoration

Landscape

- visual impact of development/commercial facilities generated by the restored canals
- visual impact of parking of motor vehicles (either in the form of introduction of car parks or informal parking in the landscape corridor of the canals)
- potential conflict arising from competing demands on towpaths by different users groups, e.g. cyclists and anglers
- impact on the setting of the canal resulting from the potential need to upgrade sections of towpath or to facilitate access by all users, including people with disabilities
- visual impact of picnic areas
- visual impact of signs
- visual impact of lighting
- visual impact of litter

5.0 MANAGEMENT POLICIES AND STANDARDS



- 5.1 Previous sections of the CMP have outlined the nature, significance and vulnerabilities of the Droitwich Canals as a heritage asset. This section sets out the policies, standards and procedures that will need to be followed in order to safeguard the significance of the canals in the long term.
- 5.2 As the body responsible for the long-term care of the Droitwich Canals, BW is committed to securing the highest practicable standards of conservation-led management. In order to achieve this, a set of rigorous policies and standards has been established. These are informed by BW's adopted policies and standards in relation to heritage and ecology, and other recognised sources of good practice. It is essential that all those involved in the future management of the canal corridor, or are responsible for interventions within it, understand and apply these policies and standards. This applies to BW managers, staff and other partners and stakeholders.
- 5.3 Restoration of the canals is likely to lead to a greater number of people wishing to visit them. This will inevitably lead to a variety of pressures on the heritage features, biodiversity and landscape setting of the canals.. An access audit has been carried out along the length of the canals, and provision is to be made to enable access for the widest range of visitors and activities compatible with protecting the heritage significance of the canals. It will be important that any works to improve public access to points and features along the canal corridor is planned in a strategic manner that does not damage the heritage significance of the canals. It is not proposed to carry out a further access audit, but the existing audit will be updated periodically, as necessary.
- 5.4 Bearing in mind the particular vulnerabilities and potential conflicts that have been identified in Section 4 above the following policies and standards shall be followed in respect of all future interventions in the Droitwich Canals:

Built Heritage

- any proposed alterations to features protected by statutory listing must not be undertaken until appropriate listed building consent has been granted by the local planning authority
- repair and maintenance works shall be specified and undertaken in accordance with British Waterways' *Heritage Policy and Principles* (2008)
- repair work shall be carried out with matching traditional materials, unless there is a sound heritage conservation justification to use a different material
- new elements introduced in the course of repair or restoration work shall be date-marked to distinguish them from historic fabric
- where evidence of historical alteration of built heritage features is revealed in the course of repair or restoration (for example evidence of lengthening of locks on the Barge Canal) evidence should be recorded and, where possible, preserved
- repair work shall only be carried out by appropriately skilled contractors, who shall be required to comply with the policies for standards of workmanship set out in the BW Heritage Standards; no sub-contracting shall be allowed without written consent, which shall only be given if the sub-contractors can be shown to have the appropriate specialist skills
- adaptations to built heritage features to meet prevailing health and safety requirements, or to make them accessible to a variety of users should not degrade their character, appearance, significance, or setting
- British Waterways' staff and volunteer group leaders shall receive adequate heritage skills training before carrying out or supervising any work along the canal corridor
- existing repair works that have been carried out in an inappropriate manner shall be replaced to an appropriate conservation standard, in accordance with a priority schedule

Archaeology

- the planning of construction works, repair and maintenance schemes, landscaping schemes, waste disposal, haul roads, borrow pits, etc. must avoid impacts on sites of known archaeological importance, as identified in the *Archaeological Desk-Based Assessment 2004*
- the Worcestershire County Archaeologist shall be consulted before any work takes place involving excavations; provision shall be made to mitigate any potential damage to any known archaeological deposits; and any features to be destroyed, damaged, or exposed shall be recorded
- any evidence of historic landscape shall be recorded prior to any proposals that would involve intrusion, alteration, or damage
- archaeological records shall be deposited with the Worcestershire County *Historic Environment Record (HER)*
- an archive shall be maintained of all repair, alteration, and construction work, beyond regular maintenance, carried out along the canal corridor
- any works of dredging, piling or penetration of below ground levels carried out at Vines Park will require Scheduled Monument Consent. English Heritage must be consulted, and the necessary consents sought, before such works are undertaken
- any works likely to alter the delicate hydrological conditions at Vines Park should be avoided as this may affect the state of preservation of buried archaeological remains.

Biodiversity

- reedbeds shall be maintained along canal margins, wherever possible
- where opportunities arise, consideration shall be given to the creation of new wetland areas other than reed-beds by the controlled flooding of land
- measures shall be taken to avoid the establishment of nuisance species (Japanese knotweed, Himalayan balsam, zander, etc.)
- managers must ensure that new development and the provision of new facilities does not detract from the canal's function as a wildlife corridor
- the provisions of the *Droitwich Canals Biodiversity Action Plan (BAP)* and the Reedbed Management Plan shall be adhered-to and implemented
- British Waterways' standards for ecological conservation shall be adhered-to

Landscape

- proposals for new development or facilities shall have regard to the local landscape character identified in the *County Landscape Assessment 1999*
- opportunities to reinforce the landscape character identified in the *County Landscape Assessment* shall be taken
- towpath treatments shall comply with BW Towpath Guidelines and shall take account of the surrounding landscape character, with a presumption in favour of grass towpaths in rural areas
- existing traditional hedgerows shall be maintained using traditional hedge-laying techniques, in accordance with a management plan
- landscaping schemes and replacement planting along the canal corridor shall use native/long-established species. An exception could be made in the more formal parkland area around Vines Park.
- any works needed to upgrade sections of towpath or to carry out other works to facilitate access by all users, including people with disabilities, should not degrade the character appearance or significance of the landscape setting of the canals

6.0 HERITAGE MANAGEMENT BY ZONE



- 6.1 In order to reflect the differing nature and issues along the canal corridor, heritage management zones have been identified. These relate to the eight landscape character zones that have previously been identified by BW in the Landscape Character Study 2003, and are referred to in the Droitwich Canals Conservation Plan (April 2004). These zones provide a logical basis for heritage management zones.
- 6.2 The most obvious distinction between the different character zones is the contrast between the lengths of canal that pass through urban and rural areas. However, there are further distinctions. These differences stem principally from the varying nature of the landscape character along the corridor and developments that have taken place at certain points.
- 6.3 The heritage management zones based on identified landscape character zones are as follows:
- Zone 01: River Severn to Hawford (A449)
 - Zone 02: Hawford (A449) to Lineacre Farm
 - Zone 03: Lineacre Farm to Chawson (A38)
 - Zone 04: Chawson (A38) to Westacre (Salwarpe Road)
 - Zone 05: Westacre (Salwarpe Road) to Netherwich Basin
 - Zone 06: Netherwich Basin and Vines Park
 - Zone 07: Bromsgrove Road to M5 crossing
 - Zone 08: M5 crossing to Hanbury Wharf

The geographic extent of the zones is illustrated in Figure 4.

6.4 The identification of heritage management zones facilitates the generation of heritage management priorities and policies specific to each zone.

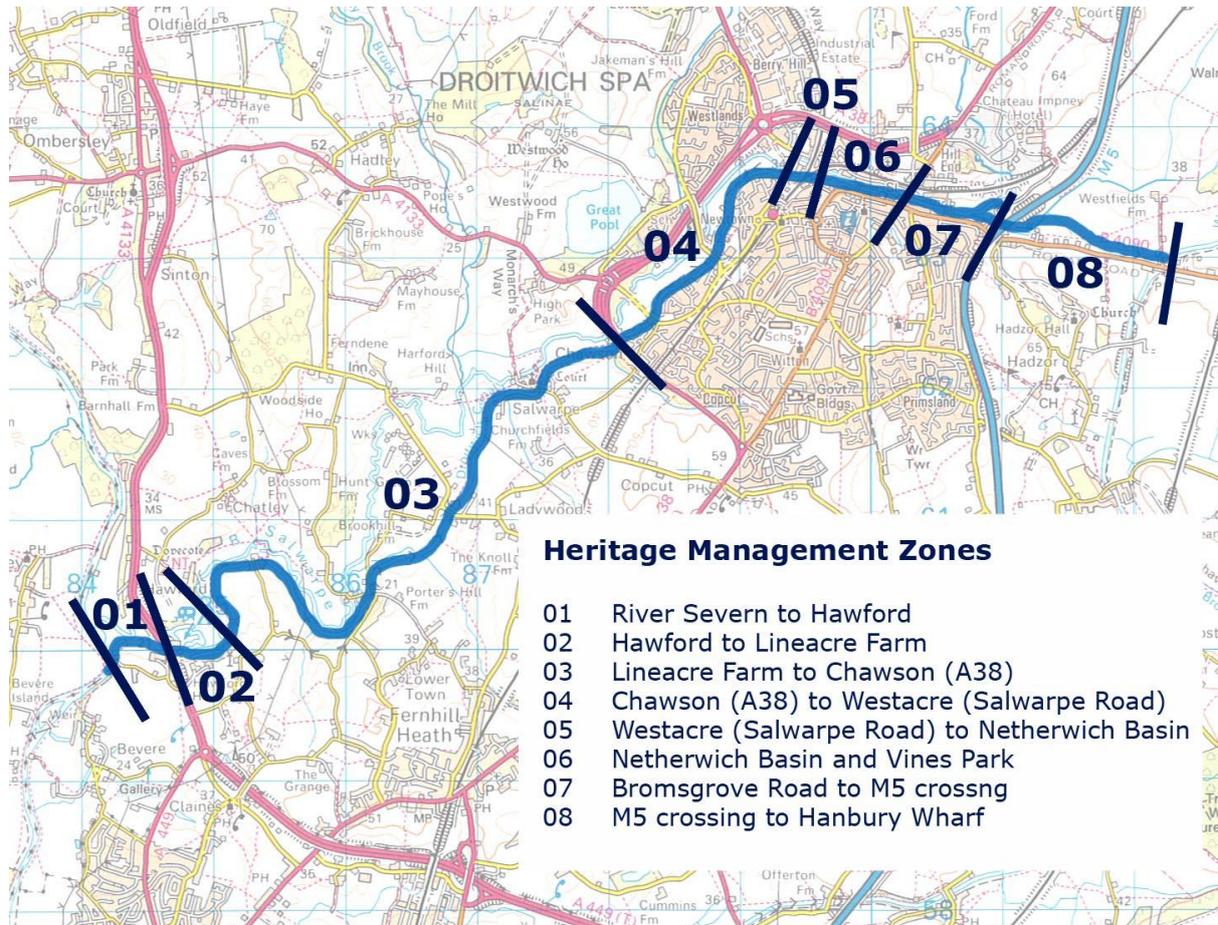


Fig. 4: The Droitwich Canals: Heritage Management Zones

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Heritage Management Zone 01: River Severn to Hawford (A449)

- 6.5 This zone extends eastwards for a distance of about half a kilometre from the western extremity of the Droitwich Barge Canal, where it enters the River Severn, to the A449 Worcester to Kidderminster road. The latter is a main road on an embankment that forms a significant physical barrier. The canal passes under the A449, through a tunnel.
- 6.6 Zone 01 is a relatively short length of the canal corridor. Whilst its character is essentially rural, it is differentiated from the larger rural Zone 03 by the presence of dwellings and a school, that constitute part of the small settlement of Hawford.

Built Heritage

- 6.7 There are no listed buildings in Zone 1 but, along with the original channel itself, this stretch of the canal does contain a number of original built heritage features, namely two original Brindley locks. The entire length is covered by the Droitwich Canals Conservation Area which extends beyond the canal corridor to embrace the small clustered settlement of Hawford and the open fields between the canal and river to the north.

Heritage Management Zone 01: Built Heritage Features				
Feature		Statutory Designation (* see below)	Significance	Notes
Channel, bank and towpath			Original feature. High heritage value. Locally important.	Towpath not surfaced. Runs full length of zone
Bridges				
Locks	Barge Canal lock no. 7		Original feature. High heritage value.	New timber footbridge replacing former steel and timber bridge
	Barge Canal lock no. 8 (Hawford Lock)		Original feature. High heritage value.	A modern steel and concrete footbridge addition has been removed.
Other structures	overflow culvert (west of lock 7)		Medium heritage value	Later alterations

* **Note:** This zone falls within the Droitwich Canal Conservation Area.

Archaeology

- 6.8 The archaeological desk-based assessment carried out in 2004 by the Worcestershire County Council Archaeological Service does not identify any significant archaeological constraints in this zone other than canal-related industrial archaeology. Archaeological investigations have shown that, contrary to anecdotal evidence, no submerged Severn Trow exists at the entrance point to the River Severn.

Biodiversity

- 6.9 Like much of the Barge Canal, this length of the waterway is characterised by widespread colonisation of the channel by common water reed. This provides habitat for a range of species.

Landscape

- 6.10 The character of this area is essentially rural, although the zone contains the main part of the small settlement of Hawford. The towpath in this zone is grass surfaced, and crosses the canal at Lock 7 over a new footbridge.

Heritage Management Considerations

- 6.11 Restricted access to the canal is an important consideration in this zone. Hawford Lock Lane is narrow with no footpaths and a small cluster of houses stand at the western end, immediately adjacent to the canal and its junction with the River Severn. There is no provision for car parking or vehicle turning in this area and access to the towpath for walkers is tight. Highway improvements to the A449 have left a closed stub of the original road that now provides access to a private school. There is no provision for vehicle turning at the end of this closed stub of road.
- 6.12 Following restoration of the canals there could be pressure to provide additional vehicular access at this point which could cause conflict with the established uses, and impact on the setting of the canals. Management decisions will be aimed at ensuring that there is no additional generation of vehicles to this zone. No additional vehicular access will be allowed, with access restricted to maintenance vehicles only.
- 6.13 Securing and maintaining access for all users, including provision for people with disabilities, is an important management issue. Pressure for Improvements to facilitate such access could necessitate change in the character of the towpath and other parts of the canal which could impact on the character and setting of the canal corridor.
- 6.14 It is not intended to introduce lighting into the new tunnel under the A449. However, as it is the intention to encourage bat roosts in the tunnel, any future pressure to introduce lighting will need to take into account potential impacts both on individual bat roosts and local populations of bat species.
- 6.15 Whilst archaeological investigations have shown that there are no remains of a Severn trow or 'wich barge' at the canal entrance, there nevertheless is a possibility of encountering buried archaeology when carrying out dredging or below ground works.

Key heritage management issues in Zone 01:

- repair and maintenance of built heritage features
- physical and visual impact of alterations to provide disabled access
- visual impact of signage
- possibility of encountering buried archaeology when carrying out below ground works

Heritage Management Zone 02: Hawford (A449) to Lineacre Farm

- 6.16 This zone extends eastwards from the A449 Worcester to Kidderminster road for a distance of about half a kilometre. The River Salwarpe and the canal run alongside each other though Zone 02.
- 6.17 The adjoining land to the immediate north is in a variety of commercial uses, comprising a boat yard, a caravan site and a set of fishing lakes. These have their own independent accesses from the A449. In the centre of the caravan site stands the former Hawford Mill, astride the main channel of the River Salwarpe.

Built Heritage

- 6.18 Other than the canal channel, bank and towpath itself there are no built heritage features in this small zone. However, the whole length lies within the Droitwich Canals Conservation Area.

Heritage Management Zone 02: Built Heritage Features				
Feature		Statutory Designation (* see below)	Significance	Notes
Channel, bank and towpath			Original feature. High heritage value.	Towpath not surfaced. Runs full length of zone
Bridges	None			
Locks	None			
Other structures	None			

* **Note:** This zone falls within the Droitwich Canal Conservation Area.

Archaeology

- 6.19 The only significant archaeological constraint, other than canal-related industrial archaeology, identified in the archaeological desk-based assessment carried out in 2004 by the Worcestershire County Council Archaeological Service in this zone is an archaeologically sensitive area centred on Hawford Mill. The latter is outside but adjacent to the canal corridor.

Biodiversity

- 6.20 The close proximity of the canal to the River Salwarpe, extensive reedbeds and adjacent mature woodland in this short zone provides a rich habitat that supports a wide range of wildlife, reflected in the findings of ecological surveys.

Landscape

- 6.21 The character of this small zone is wholly rural but is differentiated from the larger rural Zone 03 by the nature of the adjoining land to the immediate north, and the close proximity of the River Salwarpe. The backdrop of mature woodland on the rising bank on the south side of the canal provides one of the waterway's most distinctive landscape features, providing a sense of intimacy and enclosure.

Heritage Management Considerations

- 6.22 There is no provision for vehicular access to the canal from the A449 or for car-parking in the immediate area. Consequently, as with Zone 01, it will be important to ensure there is no additional generation of vehicles to this zone.
- 6.23 It is possible that the restoration and re-use of the canals will generate proposals to intensify use of the adjoining commercial area to the north. This could have an impact on the physical condition and the character of this length of the canal corridor. Whilst such development is outside the control of BW as heritage managers, BW should be vigilant in this respect, and make representations to the local planning authority should planning permission be sought for any development on adjoining land, to ensure that any proposals do not make any physical or visual adverse impact on the canal corridor.
- 6.24 The close proximity of the River Salwarpe and the canal along this length of the canal corridor, could potentially result in physical merger if erosion is not controlled. Any measures taken should seek to minimise impact on the natural appearance of the banks.

Key heritage management issues in Zone 02:

- physical and visual impact of alterations to the towpath to provide disabled access
- physical and visual impact of any works to control erosion of banks
- potential physical and visual impact of development on adjoining land
- potential impact on archaeology of any works in the vicinity of Hawford Mill

Heritage Management Zone 03: Lineacre Farm to Chawson (A38)

- 6.25 Heritage Management Zone 03 extends from Lineacre Farm to the urban edge of Droitwich. The latter is marked by the A38 (Roman Way), which has been re-aligned around the western side of Droitwich.
- 6.26 Zone 03 comprises a length of approximately five and half kilometres of the canal corridor that is unified by its tranquil rural character. The wholly rural nature of the zone comes to a sudden end at the eastern extremity where it meets the modern A38 road bridge and the urban edge of Droitwich.

Built Heritage

- 6.27 The zone contains a wealth of built heritage features, including six of the Barge Canal's eight locks (one of which is listed), four original bridges (three of which are listed) and a substantial cutting at Salwarpe. It is surprising that Porter's Mill Bridge is not listed as the archaeological desk-based assessment identifies it is an original Brindley structure.
- 6.28 The zone also includes the remains of two swing bridges, which are currently derelict structures lying at the side of the canal.

Heritage Management Zone 03: Built Heritage Features				
Feature		Statutory Designation (* see below)	Significance	Notes
Channel, bank and towpath			Original feature. High heritage value.	Towpath mostly not surfaced. Full length of zone
Bridges	A38 Roman Way Bridge		Low heritage value	
	Swing Bridge (east of Salwarpe village, south bank)		Medium heritage value.	Reconstructed original feature Derelict, on canal verge
	Salwarpe Bridge	Listed building (grade II)	Original feature. High heritage value. Group value.	Original enamel bridge number plate on west face. Interesting 'put log' holes in interior walls.
	Swing Bridge (west of Hill End House, west bank)		Medium heritage value.	Reconstructed original feature Derelict, on canal verge
	Porter's Mill Bridge		Original feature. High heritage value. Group value.	Rope marks on stonework. Enamel bridge number plate on west face
	Mildenhall Bridge	Listed building (grade II)	Original feature. High heritage value. Group value.	Rope marks on stonework.
	Linacre Bridge	Listed building (grade II)	Original feature. High heritage value. Group value.	Rope marks on stonework. Modern stone replacement copings. Concrete deck.

Locks	Barge Canal lock no. 1 (at Ladywood)		Original feature. High heritage value.	Balance beams altered (cranked) due to construction of adjacent modern road bridge
	Barge Canal lock no. 2 (220m south of Ladywood road bridge)		Original feature. High heritage value.	A modern steel and timber footbridge to be replaced by new timber bridge
	Barge Canal lock no. 3 (230m south of lock no.2)		Original feature. High heritage value.	A modern steel and timber footbridge has been removed. Inappropriate cement render on approach wall.
	Barge Canal lock no. 4 (300m north of Porter's Mill Bridge)		Original feature. High heritage value.	A modern steel and timber footbridge has been removed.
	Barge Canal lock no. 5 (at Porter's Mill)		Original feature. High heritage value. Group value.	Previously in private ownership with adjacent lock-keeper's cottage
	Barge Canal lock no. 6 (Mildenhams Lock)	Listed building (grade II)	Original feature. High heritage value. Group value.	
Other structures	Side weir and overflow (west of Roman Way road bridge)		Original feature. High heritage value.	
	Salwarpe embankment (east of Salwarpe village)		Original feature. High heritage value.	
	Salwarpe cutting		Original feature. High heritage value. Group value.	
	Boundary wall (250m west of Salwarpe Bridge)		Medium heritage value.	
	Martins Brook culvert (passes below boundary wall)		Original feature. Medium heritage value.	Modern concrete extension
	Box weir (adjacent lock no. 2)		Medium heritage value	Upstanding walls constructed in the 1970s
	Overflow culvert (adjacent lock no. 3)		Medium heritage value	
	Box weir (adjacent lock no. 4)		Medium heritage value	
	Side weir and overflow (300m south of Porter's Mill Bridge)		Original feature. High heritage value.	
	Overflow culvert, 300m west of Mildenhams Bridge		Medium heritage value	

* **Note:** This zone falls within the Droitwich Canal Conservation Area.

Archaeology

6.29 The archaeological desk-based assessment carried out in 2004 by the Worcestershire County Council Archaeological Service identified the following archaeological constraints in addition to canal-related industrial archaeology:

- ridge and furrow in the field to the east of Linacre Bridge
- an archaeologically sensitive area centred on Mildenhams Mill
- an archaeologically sensitive area centred on Porter's Mill
- an archaeologically sensitive area centred on Salwarpe

These features are all outside but adjacent to the canal corridor.

Biodiversity

- 6.30 This zone of the waterway provides a very extensive and varied range of habitats for wildlife including significant areas of grassland, reedbed, woodland and scrub. These habitats support a rich flora and fauna. Ecological surveys have identified a variety of species in this area including a range of mammals, birds invertebrates and insects. The loss of reedbed in this area as a result of canal restoration will potentially diminish the extent of this valuable habitat, but this has been mitigated by the creation of an extensive new area of reedbed to the east of Salwarpe village. A continuous margin of reedbed is to be maintained on the offside bank and on the towpath side where practicable.

Landscape

- 6.31 The landscape character of this area is essentially rural, with extensive areas of cultivated land to either side. Along this length of canal are significant areas of scrub and woodland that provide a soft edge to the canal, with frequent glimpses to undulating countryside beyond.

Heritage Management Considerations

- 6.32 The possibility of future restoration of the two derelict swing bridges is a heritage management consideration. In any event, the surviving bases should be consolidated and conserved.
- 6.33 The newly created reedbed east of Salwarpe village is already becoming well-established. However, it is important that this continues to be managed to ensure the continuation of a substantial reedbed habitat in close proximity to the canal.
- 6.34 Picnic areas are to be provided between Mildenhams and Porter's Mill, and between Salwarpe and the A38. These could become unsightly if they are misused, neglected, or litter is left, and if so would degrade the appearance of the canal corridor. It is therefore essential that picnic areas are well maintained.
- 6.35 The restoration scheme provides an informal access point about 200 metres to the north of Porter's Mill, with visitor moorings along the intervening section. This area could become a 'honeypot' for visitors and could generate proposals for commercial facilities.
- 6.36 It is possible that the restoration and re-use of the canals will generate development proposals at Mildenhams, Porter's Mill, Ladywood, and Salwarpe. Whilst direct control over this aspect will fall outside the remit of BW as heritage managers of the canal, BW should be vigilant in this respect, and make representations to the local planning authority should planning permission be sought for any development in the adjoining settlements, to ensure that any such proposals do not make any physical or visual adverse impact on the canal corridor.

Key heritage management issues in Zone 03:

- repair and maintenance of built heritage features
- physical and visual impact of alterations to provide disabled access
- visual impact of signage
- visual impact of picnic areas
- the future of the two derelict swing bridges
- potential pressure for visitor facilities at the Porter's Mill informal access point
- potential physical and visual impact of development on adjoining land
- potential impact on archaeology of any works in the vicinity of Linacre Bridge, Mildenhall Mill, Porter's Mill, or Salwarpe

Heritage Management Zone 04: Chawson (A38) to Westacre (Salwarpe Road)

- 6.37 Heritage Management Zone 04 extends from the urban edge of Droitwich, marked by the A38 (Roman Way), to Salwarpe Road, Westacre. The character of Zone 04 is essentially urban, although this would not have been the case when the canal was constructed. Today, twentieth-century planned urban expansion around the western side of Droitwich extends to the eastern bank of the canal. West of the canal is a floodplain between the canal and the River Salwarpe, which is mostly given over to use as playing-fields.
- 6.38 The development east of the canal has been well-planned in relation to the canal. The original towpath is on the west side of the canal. Another footpath has been provided along the east bank of the canal through most of the zone, and the two sides are linked by modern footbridges of matching design, at Valley Way and Westacre. The paths on both sides are surfaced and lit at night. Adjacent houses, which are mostly two storey, provide a high level of passive surveillance of the canal and the towpaths.

Built Heritage

- 6.39 Other than the canal channel banks and towpath, the zone has relatively few built heritage features. There are two side weirs west of the bridge that takes the Salwarpe Road over the canal. However only the weir furthest from the road bridge can be regarded as a significant historic feature (albeit that this has been subjected to modern adaptations). The other weir is a modern feature. The precise origins of the winding hole and former basin north of Ombersley Way is unclear, and represents a gap in current knowledge.

Heritage Management Zone 04: Built Heritage Features				
Feature		Statutory Designation (* see below)	Significance	Notes
Channel, bank and towpath			Original feature. High heritage value.	Towpath surfaced Full length of zone, west side of the canal
Bridges	Siding Lane Bridge		Low heritage importance	Remains of an earlier structure below the modern brick bridge.
Locks				
Other structures	Overflow weir, immediately west of Salwarpe Road bridge		Modern feature. Low heritage value.	Modern concrete structure
	Overflow weir, 100m west of Salwarpe Road bridge		Original feature. Medium heritage value.	Concrete adaptations to earlier brick structure
	Former basin north of Ombersley Way		Low heritage importance	Origins of the basin are not clear

* **Note:** This zone falls within the Droitwich Canal Conservation Area.

Archaeology

- 6.40 The archaeological desk-based assessment carried out in 2004 by the Worcestershire County Council Archaeological Service does not identify any significant archaeological constraints in this zone other than canal-related industrial archaeology.

Biodiversity

- 6.41 Despite the essentially urban nature of this zone the existence of relatively wide landscape margins to much of the length, and the continued existence of a linear reedbed on the off bank, cause this part of the canal to provide a range of habitats for wildlife. The digging out of the former winding hole, and management of the adjoining area of reedbed in this area will help to enhance the existence of reed bed.

Landscape

- 6.42 As outlined above, this zone of the canal corridor is essentially urban in character. However, the existence of extensive open land on the northern side in the form of playing fields, and the existence of a wide landscape margin for much of the length, lends a soft edge to the waterway, and offers an attractive visual amenity. Existence of public lighting to the paths give a formal character to the length, but these do not seriously detract from the setting of the canal and provide safety and security.

Heritage Management Considerations

- 6.43 The level of the land within this stretch of the canals is almost flat and, there are no locks. The road and foot bridges that cross the canal are all modern, although there is evidence that the Siding Lane road bridge incorporates an earlier bridge structure below.
- 6.44 It is proposed to re-create a mooring basin out of a former basin situated to the immediate north of Ombersley Way, and to provide visitor moorings north of Siding Lane Bridge. These proposals and the open nature of the land to the west of the canal could result in pressure for additional facilities.
- 6.45 As the archaeological desk-based assessment did not clarify the origins of the former basin to the north of Ombersley Way, this remains a gaps in current knowledge. Any additional work in this area should make provision for archaeological investigation.
- 6.46 Otherwise, there are relatively few heritage management issues in this zone.

Key heritage management issues in Zone 04:

- repair and maintenance of built heritage features
- visual impact of signage
- potential physical and visual impact of development on adjoining land
- any work related to the basin at Ombersley Way to make provision for archaeology

Heritage Management Zone 05: Westacre (Salwarpe Road) to Netherwich Basin

6.47 This short zone of approximately 250 metres extends from Salwarpe Road to the Netherwich Basin and has an industrial character resulting from two railway lines that pass over the canal at high level, and the industrial nature of the adjacent land. The westerly railway line is carried over the canal by a brick bridge whereas the eastern railway line is on an embankment, the canal and towpath being accommodated in a narrow 'Armco' concrete tunnel. Additionally, there is a twentieth-century road bridge carrying Kidderminster Road, between this zone and the Netherwich Basin. This dates from the 1930s and replaces an earlier bridge in this location.

Built Heritage

6.48 Other than the canal channel itself, the only built heritage feature in this short length of waterway is the finely detailed brick bridge, incorporating skew arches, that carried the railway over the canal.

Heritage Management Zone 05: Built Heritage Features				
Feature		Statutory Designation (* see below)	Significance	Notes
Channel, bank and towpath			Original feature. High heritage value.	Towpath surfaced. Runs full length of zone
Bridges	Railway bridge		Medium heritage importance	
	Kidderminster Road bridge		1930s feature. Low heritage value	Replaces an earlier structure
Locks				
Other structures				

* **Note:** This zone falls within the Droitwich Canal Conservation Area.

Archaeology

6.49 The archaeological desk-based assessment carried out in 2004 by the Worcestershire County Council Archaeological Service does not identify any significant archaeological constraints in this zone other than canal-related industrial archaeology.

Biodiversity

6.50 Given the hard urban industrial edge to this short length of canal there is limited biodiversity. However the bridges offer scope for bat roosts and the railway embankment provides some wildlife habitat.

Landscape

- 6.51 This short zone is characterised by a hard urban landscape, and is lined by industrial and railway land. On the south side on the canal just to the east of the narrow 'Armco' concrete tunnel is an area of unsightly land containing a neglected modern flat roofed building in use as a boxing club and covered with graffiti. This detracts from the character and appearance of the canal corridor, and lends a sense of threat to the area. There is clearly significant scope for enhancement in this zone. The canal corridor would benefit from softening of edge boundary treatment should the opportunity arise through redevelopment of adjoining land.

Heritage Management Considerations

- 6.52 There is an absence of passive surveillance in the zone, and the space between the railway bridge and the 'Armco' tunnel is threatening. Lighting has recently been added to the tunnel taking care to protect the habitat for bats. Any future works in this area will need to ensure that these habitats continue to be protected, and that the traditional industrial character of the zone is respected.
- 6.53 The existing development on land on either side of the canal at this point detracts from its setting. The restored canal could, however, generate proposals to redevelop adjoining land, and thereby offer the opportunity for the character and appearance of this length of the canal to be enhanced and the level of passive surveillance to be improved.
- 6.54 Responsibility for the repair and maintenance of the railway bridge and tunnel rests with Network Rail.
- 6.55 There are relatively few heritage management features in this short zone. The heritage management emphasis should be geared towards enhancement.

Key heritage management issues in Zone 05:

- visual impact of signage
- visual impact of lighting
- visual impact of any security systems, such as CCTV
- potential physical and visual impact of development on adjoining land

Heritage Management Zone 06: Netherwich Basin and Vines Park

6.56 Zone 06 extends for a length of about 0.75 kilometres between the Kidderminster Road bridge at the western extremity to the B4090 Bromsgrove Road bridge at the eastern end. The zone is located to the immediate north of the town centre and has a historic urban character.

Built Heritage

6.57 The three swing foot-bridges are replicas, the most westerly being erected relatively recently at a point where there was historically no previous bridge. The most significant canal-related feature in the zone is the lock at the eastern end, which was constructed in the 1850s to provide the connection, via a short navigable length of the River Salwarpe, between the Barge Canal and the Junction Canal.

6.58 The canal banks in this zone have been subjected to a variety of treatments including timber piling, brick, concrete, sheet metal piling, and gabion baskets.

Heritage Management Zone 06: Built Heritage Features				
Feature		Statutory Designation (* see below)	Significance	Notes
Channel, bank and towpath	Channel re-aligned in 1980s between Netherwich basin and Saltway, therefore	Within area of scheduled monument but excluded from the designation	High heritage value where original channel and bank and towpath survive in original alignment, and where towpath path abutts canal (not basin). limited heritage value elsewhere where modern re-alignment has taken place.	Towpath surfaced. Much adapted following enlargement of basin and creation of public park
Bridges	Swing bridge (eastern)	Within area of scheduled monument but excluded from the designation	Low heritage value	Not original
	Swing bridge (central), adjacent to Upwich brine well	Within area of scheduled monument but excluded from the designation	Low heritage value	Not original
	Swing bridge (western)	Within area of scheduled monument but excluded from the designation	No heritage value	A recently introduced feature at a point where there was no previous bridge. Included in the schedule for clarity.
Locks	Lock at junction of Barge Canal and River Salwarpe (leading to the Junction Canal)	Within area of scheduled monument but excluded from the designation	Original feature constructed with the Junction Canal to link the two canals. High heritage value.	
Other structures	Canal wall	Within area of scheduled monument but excluded from the designation		Includes some modern piling and concrete
	Upwich brine well	Scheduled	High heritage value	

		monument		
	Netherwich Basin	Within area of scheduled monument but excluded from the designation	Low heritage value	Created in the 1970s

* **Note:** This zone is covered by the Droitwich Link Canal Conservation Area.

Archaeology

- 6.59 The whole of Zone 06 is within the designated area of a scheduled monument. This has been designated to protect the largely buried remains of an extensive area of continuous salt production from the Iron Age to the nineteenth-century. The designation excludes the course of the Droitwich Canal and towpath and all modern surfaces, although the ground below is included. The scheduled monument covers a wider area than the canal corridor, taking in the Vines Park public park, the Netherwich Basin, and margins of land mostly to the south of the canal in a variety of uses including industrial, car sales, a public house, a bowls club, and car parking. Given the scheduled monument status of Vines Park, any works involving potential damage to buried archaeological deposits (e.g. works of dredging, piling and penetration of below ground levels) cannot be carried out without scheduled monument consent. In the first instance, the English Heritage Inspector of Ancient Monuments must be consulted to discuss the nature and scope of the works proposed.
- 6.60 The English Heritage schedule description makes it clear that the Droitwich salt making industry is considered to be exceptional in preserving evidence for salt production from the Iron Age until the 19th-century. Its location, around the brine springs in waterlogged conditions has ensured the survival of a variety of features, including buried structures, wooden artefacts and environmental evidence. Deep deposits of ash clay and briquetage created as a by-product of the industry and, sealed by alluvial silts from regular flooding, have well preserved stratified archaeological remains many metres deep. This distinguishes the Droitwich salt pits from the other main areas of inland brine-salt production in England. Partial excavation has demonstrated excellent preservation of both organic remains and building structures. The remains will provide detailed information about the development of the industry and its technologies over 2000 years, and the distinctive technologies that were developed in Droitwich. Combined with documentary sources from the Anglo-Saxon period to modern times and more recent photographs, the remains provide information about both the organisation, individual people, and families involved in the salt industry, and aid our understanding of the process over time.
- 6.61 The archaeological desk-based assessment carried out in 2004 by the Worcestershire County Council Archaeological Service provides further detail of the nature of the archaeological resource. The assessment states that there is potential for well preserved deposits within the alluvium, demonstrated by a watching brief, the evidence of structures such as the Middlewich pits, the material derived from them, and by analogy to an intensively excavated area to the east. The area to the south of the canal has not been the subject of comprehensive fieldwork, though the mapping of alluvium in this area would indicate that deposits of similar quality exist. Detailed consideration of the relative importance of deposits within the areas cannot be assessed on the currently available knowledge, though if medieval or earlier deposits survive, they are very likely to be considered important. To this importance can be added the post-medieval industrial/commercial buildings fronting the canal.

Biodiversity

- 6.62 Vines Park is an area of public open space managed by Wychavon District Council. It has the appearance of a municipal park, with closely cut lawns, manicured planting beds and non-native planting. Whilst it has value as a public amenity it provides only limited biodiversity and limited habitats for wildlife, and does not, maximise ecological/biodiversity potential. However, the canal restoration project has created a new reedbed within Netherwich Basin that will offer a new reed habitat.

Landscape

- 6.63 As highlighted above, Vines Park is maintained as a municipal park. As such it has value as a public landscape amenity area. However, it does not make the most of the historic canalside location, and includes non native planting and closely mown lawns. It also incorporates inappropriate modern steel sheet piling to banks in certain areas. Due to its urban location Vines Park is amongst the most vulnerable sites on the canal to vandalism.

Heritage Management Considerations

- 6.64 Managers of the canal corridor must ensure that no works involving below ground disturbance are carried out in this zone without scheduled monument consent or the agreement of English Heritage that such consent is not required. Excavations, including such work as digging a pit to erect a signpost, could have an impact on buried archaeology. Scheduled monument consent is required for all excavation or similar work, such as augering or piling.
- 6.65 Whilst the scheduled monument designation suggests high heritage value in this zone, it should be noted that the canal channel itself has been much altered. The substantial Netherwich Basin was created as recently as the 1970s and part of the canal that originally ran along the line of the road to the south known as Saltway was re-aligned in the same decade.
- 6.66 Zone 06 is the closest part of the canal corridor to Droitwich town centre and there is likely to be pressure to re-develop adjoining sites to the immediate south. If handled with sensitivity, such re-development could enhance the setting of the canal corridor, although the avoidance of damage to buried archaeology will be a significant challenge.
- 6.67 Managers of the canal corridor should ensure that they are involved from an early stage in any proposals for redevelopment of adjoining sites, to ensure that schemes are designed to enhance the character and appearance of the canal.
- 6.68 The importance of the preserved evidence of historic salt production is considered to be exceptional. Consequently, improved interpretation facilities may be proposed in due course. Equally, future proposals for enhancements to the public park are likely and managers should be vigilant to ensure that alterations are appropriately conceived.

Key heritage management issues in Zone 06:

- all proposals (of any scale) involving ground disturbance to make provision for buried archaeology
- compliance with scheduled monument legislation / the need to obtain scheduled monument consent for works involving ground disturbance
- repair and maintenance of built heritage features
- physical and visual impact of alterations to provide disabled access
- visual impact of signage
- visual impact of new picnic areas, seating and other park facilities
- potential physical and visual impact of re-development of adjoining land

Heritage Management Zone 07: Bromsgrove Road to the M5 crossing

6.69 Zone 07 extends for a length of about 0.75 kilometres from the Bromsgrove Road Bridge to the M5. Much of the original length of the Junction Canal through this zone has been lost and part has been built over. The associated towpath does not survive and Junction Canal lock number 6 has been substantially built-over by a car sales garage. The latter stood at the point where the Junction Canal flowed into the River Salwarpe and a short length of the western end of the lock survives. The restoration proposals create a new canal channel, a new lock (now lock 7) and canalise part of the River Salwarpe.

Built Heritage

6.70 Due to the infilling of the canal and the subsequent building over of the original line of the canal at this point, no built heritage features survive in Zone 07 of the canal corridor, apart from the remnant of lock number 6 which is outside the ownership of BW and Wychavon District Council.

Heritage Management Zone 07: Built Heritage Features				
Feature		Statutory Designation (* see below)	Significance	Notes
Channel, bank and towpath				Towpath does not survive Canal channel infilled and built over
Bridges				
Locks	Junction Canal lock number 6		Original feature. Low heritage value	Only 2m of western end survive.
Other structures				

* **Note:** This zone is covered by the Droitwich Link Canal Conservation Area.

Archaeology

6.71 In addition to canal-related industrial archaeology, the archaeological desk-based assessment carried out in 2004 by the Worcestershire County Council Archaeological Service draws attention to the fact that this area once contained the town mill, powered by the River Salwarpe which ran into a millpond east of the mill, with a weir and by-pass to the north. The assessment also identifies a former salt works in this area.

Biodiversity

6.72 Despite the urban character of this zone, the River Salwarpe provides an informal wildlife corridor. It is proposed to canalise a length of the River Salwarpe in order to reinstate the waterway in this length. Currently the river provides a narrow informal stretch of water which will inevitably undergo significant change when it is widened and dredged to allow for navigation. Care will have to be taken in order to mitigate the potential loss of habitat and biodiversity in this area.

Landscape

- 6.73 The landscape character of this zone is essentially urban in nature. There is development on either side, and the former course of the canal has been infilled and developed with modern development of indifferent quality. Whilst this character will be changed there is scope for careful edge treatment and planting of the banks to maintain a soft appearance. The towpath in Vines Parks is surfaced in tarmac. There could be future pressure to increase tarmac surfacing as a cost effective option for improved access. The preferred heritage material would however be a surface of natural/traditional material such as gravel or crushed brick. An appropriate alternative might be bound gravel.

Heritage Management Considerations

- 6.74 Whilst the scheduled monument does not extend to the east of Bromsgrove Road, the immediate proximity to a core area of archaeological interest suggests a possibility of further buried archaeology in Zone 07.
- 6.75 Therefore, due to the potential for buried archaeological remains, the principal heritage management consideration in this zone is the potential for well-preserved deposits to be encountered when carrying out works.
- 6.76 Some remnants of the town mill complex survive but are not within the control of managers of the canal corridor. Any additional works in this area should make provision for potential archaeology associated with the former town mill or the salt works.
- 6.77 Other heritage management issues will be the need to safeguard the setting of the waterway by ensuring that any adjoining redevelopment is in keeping with and enhances the canal corridor.

Key heritage management issues in Zone 07:

- possibility of encountering buried archaeology when carrying out below ground works
- potential physical and visual impact of development on adjoining land

Heritage Management Zone 08: M5 crossing to Hanbury Wharf

- 6.78 Heritage Management Zone 08 extends for a distance of around 1.2 kilometres between the M5 and the Worcester & Birmingham Canal. Whilst the zone is in the countryside beyond the main built-up area of Droitwich, its character is influenced by the close proximity of urban development. The original line of the Junction Canal runs parallel with and just to the north of Hanbury Road, a Roman road and medieval saltway, which continues to be a well-used route eastwards out of Droitwich.
- 6.79 Hanbury Road has attracted twentieth-century ribbon development at the western end of zone 08, and there is a cluster of development at the eastern end, where the canal joins the Worcester & Birmingham Canal, centred on The Eagle and Sun public house. The presence of the Droitwich Rugby Football Club buildings and grounds dominates the landscape character in the central part of the zone, north of the canal.
- 6.80 The construction of the M5 motorway truncated the abandoned canal at the western extremity of this zone. A section of the canal immediately to the east of the M5, including original locks 4 and 5, has been subsumed into gardens of privately owned houses. The restoration scheme has created a new cut that swings to the north of the private houses.

Built Heritage

- 6.81 As the section of the disused canal closest to the M5 motorway, which includes original locks 4 and 5, has become part of privately owned gardens, there are no heritage features along the newly constructed length of canal.
- 6.82 A half kilometre length of the original Junction Canal survives from the confluence with the Worcester & Birmingham Canal to the point where the new cut diverts from the original route. This length incorporates the original towpath and an impressive flight of three locks (known as the Hanbury Locks), each of which has a related by-weir and side pond. This set of sophisticated and deep locks represents the culmination of lock technology.

Heritage Management Zone 08: Built Heritage Features				
Feature		Statutory Designation (* see below)	Significance	Notes
Channel, bank and towpath	Approx. 500 metre length at eastern end of zone		Original feature. High heritage value.	Towpath surfaced.
Bridges	Westfields Farm Bridge		Original feature. High heritage value.	Rebuilt parapet.
Locks	Junction Canal lock number 1		Original feature. High heritage value.	
	Junction Canal lock number 2		Original feature. High heritage value.	
	Junction Canal lock number 3		Original feature. High heritage value.	
	Junction Canal lock number 4		Original feature. Medium heritage value.	Ruin now in private ownership; not part of the restoration scheme
	Junction Canal lock number 5		Original feature. Medium heritage value.	Ruin now in private ownership; not part of the restoration scheme
Other structures	Canal wall adjacent Westfields Farm Bridge		Original feature. High heritage value.	
	By-weir and side pond associated with lock no. 1		Original feature. High heritage value.	
	By-weir and side pond associated with lock no. 2		Original feature. High heritage value.	
	By-weir and side pond associated with lock no. 3		Original feature. High heritage value.	
	Former canal bed		Original feature. Medium heritage value.	De-watered and largely infilled; now in private ownership; not part of the restoration scheme

* **Note:** This zone is covered by the Droitwich Link Canal Conservation Area.

Archaeology

6.83 In addition to canal-related industrial archaeology, the archaeological desk-based assessment carried out in 2004 by the Worcestershire County Council Archaeological Service draws attention to an area of alluvium associated with the Body Brook in the west part of the zone. This is likely to contain environmental indicators of former landscapes.

Biodiversity

- 6.84 The western end of this zone is semi-rural in character, containing a number of buildings, and the Rugby Club, as well as some cultivated land. It provides a less diverse range of habitats than the more rural areas to the west of Droitwich, and the eastern end of this zone.
- 6.85 The major construction works to create an entirely new canal channel at the western end of this zone has clearly had a significant impact on the biodiversity of the area. However, mitigation measures have been put in place to ensure that such impact is short lived. In the longer term, a more diverse range of marine aquatic habitats will result from the re-introduction of a navigable and managed waterway. The restored eastern end of the canal with its locks and side ponds provides a rich range of habitats.

Landscape

- 6.86 The landscape character of this zone is semi-rural. Clearly the construction of the new length of canal will make a marked impact on the landscape until the banks and verges have had the time to be re-colonised by plants, and gained maturity. The rising land towards the junction with the Worcester & Birmingham Canal at the eastern end of the zone, provides a visually dramatic transition from the lower levels of the reconstructed western end of the canal.

Heritage Management Considerations

- 6.87 Due to the fact that the original canal cut, and locks 4 and 5 fall outside the land in the control of BW, there is no scope for managers of the canal corridor to effect conservation works to the original length of canal and the surviving remains of the two locks in private ownership. Any future conservation works to this disused length of canal and associated structures will be the responsibility of private land owners.
- 6.88 Any works in the area of alluvium identified in the archaeological desk-based assessment, should make provision for archaeological assessment.
- 6.89 Locks 1, 2 and 3 each have a fall of 10' 3" and the locks are relatively deep. They have no protection around them and the towpath is not lit. Whilst the depth of these locks is not especially great in relation to other locks on the canal network, it is greater than most other locks on the Droitwich Canals. With constantly evolving health and safety standards there may be pressure in future for safety measures, and possibly lighting to be introduced. Clearly compliance with safety standards will be an important concern for managers. However, any safety measures that need to be introduced should be proportionate to the risks involved, and balance the safety of both boaters and visitors. In all cases, such measures must be conceived with regard for the impact on the appearance and fabric of the historic locks.
- 6.90 The 'Gateway Site', located close to the Rugby Club off Hanbury Road, forms the principal public access point to the canals. In view of this, and due to the existence of significant adjacent areas of open land within the zone, there could be pressure for a variety of new developments, stimulated by the restored canal. Whilst direct control over this aspect will largely fall outside the remit of BW as heritage managers of the canals, appropriate

representations should be made to the local authority if planning permission is sought for any development that is considered to make an adverse visual impact on the setting of the historic waterway.

- 6.91 The length of canal between Westfields Farm Bridge and lock number 1 accommodates moored narrowboats. The occupiers of some of these boats have established sitting areas and small gardens alongside the towpath. This has a detrimental affect on the appearance of the canal and should not be encouraged.

Key heritage management issues in Zone 08:

- repair and maintenance of built heritage features The character of this zone is semi-rural
- physical and visual impact of alterations to provide disabled access
- physical and visual impact of any alterations to improve safety around locks 1-3
- visual impact of sitting/garden areas alongside the towpath
- visual impact of signage
- potential physical and visual impact on the historic length of canal of any development on adjoining land
- possibility of encountering buried archaeology when carrying out below ground works

7.0 PLAN IMPLEMENTATION



- 7.1 This section of the CMP sets out the management mechanisms that need to be put in place to ensure the successful implementation of the policies, standards and objectives outlined in sections 5.0 and 6.0 above. It also outlines the specific actions that are required in order to safeguard the significance of the Droitwich Canals as a heritage asset in the long term.

Use of the CMP to guide future works to the canals

- 7.2 The CMP is the main guidance document for the future long-term management and maintenance of the of the Droitwich Canals by BW and other statutory organisations with significant management responsibilities.

Management and reporting structures and responsibilities

- 7.3 BW has extensive experience of managing complex restoration projects, and in carrying forward the management and maintenance of restored waterways thereafter. For this purpose it has established integrated management systems that take account of the many potentially competing technical and environmental issues that need to be addressed on a day-to-day basis. These pre-existing management systems will be used as a model for long-term management of the Droitwich Canals, but tailored to meet the specific needs and policies identified in this CMP.
- 7.4 The main BW system that is relevant in this context is the CMP appraisal, which is analogous to the Environmental Code of Practice (ECP) currently in use by BW for the management of

the canal network as a whole. This provides an assessment procedure similar to the heritage impact assessment suggested by the Heritage Lottery Fund in its CMP guidance. The CMP appraisal is an in-house environmental appraisal system covering natural and built environments, as well as wider impacts on society, and extends the ECP process, which is mandatory for all projects managed by BW.

Long term maintenance needs and future maintenance strategy

- 7.5 Long-term maintenance of the Droitwich Canals clearly does not end once the full restoration works are complete. Regular and sustained maintenance, particularly of important elements such as the reedbeds, is the only way to ensure that the natural and built heritage is sustained, the canals remain in navigable condition, and that regeneration continues. All works of maintenance will therefore need to be carried out in accordance with the policies and standards set out in this CMP.
- 7.6 In order to ensure that maintenance work is carried out in a timely manner, and to the required standard, a detailed maintenance programme will be designed for the Droitwich Canals, based on BW general waterway standards. For the purposes of the restored Droitwich Canals, these will be tailored to the requirements of the appropriate regional division of BW, and will take account of the responsibilities of existing partners, for example, in respect of bridge maintenance by Worcestershire County Council.
- 7.7 It should be noted that, in addition to the day-to-day roles of BW, Worcestershire County Council, and Wychavon District Council as the principal organisations responsible for the management of the canals, it is anticipated that volunteers will also have a role. Specifically, it is anticipated that volunteers will be involved in the monitoring and minor maintenance of the canals. It is however, clearly important that such volunteer effort is co-ordinated, and adheres to established policies and procedures. It is therefore anticipated that Worcestershire County Council will take a lead on the recruitment and management of volunteers, in collaboration with BW.

8.0 MONITORING AND REVIEW



- 8.1 Those responsible for the long-term management of the canals as a heritage asset must be able to monitor the success of various actions aimed at satisfying the various stated policy aims and standards identified in this plan. It is therefore essential to have in place an effective system for monitoring and review. This section of the CMP sets out how BW as project managers will monitor progress against the objectives of the plan, and ensure that the plan is being used to inform decision-making.
- 8.2 On-going monitoring of the condition of the canals in terms of built heritage, ecology and landscape will be undertaken. For example, regular monitoring of the condition of the canal's principal structures, including locks and bridges will be undertaken in accordance with BW policy. Similarly periodic monitoring of wildlife and plants will be undertaken in order to evaluate the biodiversity of the canal. The existing gazetteer of heritage assets will be used as a basis for auditing the changing condition of the built environment of the canal, whilst changes in biodiversity will be monitored through regular updates of plant and wildlife surveys.

Strategy for updating and review of the CMP

- 8.3 It is anticipated that this CMP will come into effect in the restoration stage of the Droitwich Canals, and remain in place as a management tool thereafter. It is inevitable that circumstances will change over time and our understanding of the natural and man-made heritage of the canals will evolve and expand as new information comes to light. It will therefore be necessary for the CMP to be reviewed and updated periodically. It is anticipated that the main policy document will maintain its currency for some considerable time, and will not need review until after 5 years. The content of the technical appendices, however, will need to be updated more frequently as new data becomes available. The review of the CMP

will be informed by various monitoring reports and surveys undertaken in relation to the condition of the built heritage, ecology, and biodiversity of the canals.

9.0 RELATED DOCUMENTS

- 9.1 A wide range of documents have been consulted in the preparation of this CMP. The most important of these are provided as appendices. However, not all of these documents will be needed on a day-to-day basis by those responsible for the management of the waterway, and therefore have not been included as appendices. A list of the most relevant background documents is provided below.

Supporting information

British Waterways, *Droitwich Canals Conservation Plan*, April 2004
British Waterways, *Droitwich Canals Landscape Character Study*, 2003
British Waterways, *Landscape Character Areas - Summaries*, 2003
British Waterways, *Droitwich Canals Heritage Survey*, 2000, updated 2004
Worcestershire County Council, *Archaeological Desk Based Assessment for the Droitwich Canals*, 2004
Worcestershire County Council, *Landscape Character Assessment for Worcestershire*, 1999
British Waterways/Wetlands Advisory Service, *Droitwich Canals Restoration Outline Biodiversity Action Plan*, 2004

Policies and standards

British Waterways, *Heritage Policy and Principles*, 2008
British Waterways, *Environmental Policy*, October 2005
British Waterways, *Access for People with Disabilities*, February 2006
British Waterways, *Biodiversity a Framework for Waterway Wildlife Strategies Technical Manual*, 2000.
British Waterways, *British Waterways and Sustainable Development*, n.d.
British Waterways, *Towpath Mowing Guidelines*, September 2007

Additional information

Wychavon District Council, *Droitwich Canals Supplementary Planning Guidance*, September 2004
British Standards Institution (1998) *BS7913:1998 Guide to the principles of the conservation of historic buildings*
DETR, *Waterways for Tomorrow*, 2000