

6. ECOLOGICAL SIGNIFICANCE

SSSI designation

The over-arching reason for designation as an SSSI is set out in the adjacent box. The description provided with the notification gives more detail, the main points being:

- The Canal is fed at Cromford by water from the Carboniferous Limestone but for most of its length there are small feeders of more acidic water from the shales and gritstone. This variation in water chemistry has resulted in a range of plant communities and aquatic invertebrates.
- On the tow path margin 190 herbaceous plant species have been recorded, providing a continuity of food niches for the important insect fauna. A study of hoverflies has recorded nearly 80 species, including a high % of noteworthy species.
- For much of its length the canal has the character of a woodland ride attracting insects from the woodland to feed on the canal flora.
- It is of local importance for grass snakes and water shrews, though the areas of habitat which will support these species are limited.

In addition to these interests identified by the SSSI designation, the canal has other recognised biodiversity value:

Water Vole

Many visitors will have had a chance to see water vole on the Canal. The water vole is a UK priority, protected species due to its continuous decline. Repeat surveys over a period of years have indicated that the water vole has maintained its population status on the canal, which is recognised as a Derbyshire stronghold for this species. The canal as a linear feature allows the movement of plants and animals along an extensive wildlife corridor, providing links to extensive woodlands and species rich grasslands which abut it.

Bats

All species of bat are 'European protected species' and, of these, the Pipistrelle bat is a UK BAP priority species. The canal is rich in invertebrates and is likely to be a significant source of food for bats. records of bats are limited, due to lack of recording effort but there are many trees and structures providing potential bat roosts. These are particularly valuable where they are clustered together e.g. at High Peak Junction. Due to the variety of habitats, the canal could be expected to support most of the nine species of bat recorded in Derbyshire.

Wildlife Corridor—links many other important sites along the valley

The canal provides a valuable wildlife corridor through the northern part of the World Heritage Site and its buffer zone, in particular linking a number of ancient semi-natural woodlands which border it or lie close by on the eastern side of the river valley, including Bow Wood, Lea Wood, Leashaw Wood and Crich Chase. This assist in the distribution of wildlife, especially rare woodland invertebrates which could otherwise suffer from isolation.

Local Nature Reserve designation

Designation as an LNR by the County Council of the Whatstandwell to Ambergate length of the canal in the 1970's indicated the authority's recognition of the nature conservation value of the site and also the opportunities that the canal provides for public enjoyment of wildlife. An agreement with Derbyshire Wildlife Trust enabled this area to become a DWT nature reserve bringing the Trust's management skills and resources to the vegetation along the length of the canal.

CROMFORD CANAL SITE OF SPECIAL SCIENTIFIC INTEREST

The site consists of approximately six miles of disused canal running from Cromford to Ambergate.

The SSSI was selected as an example of a eutrophic freshwater habitat with a rich submerged and emergent aquatic flora and a diverse marsh-wet grassland margin which supports a rich variety of insect fauna.

*Excerpt from ;
Description and reasons for notification as an SSSI August 1986.*

The habitat types found along the canal are all UK Biodiversity Action plan (UK BAP) priorities. Some of the plant species are locally rare.



7 ISSUES + PROBLEMS: POLICIES + OPPORTUNITIES



The wooded slopes above the Canal are not in County Council ownership, but management of overhanging trees is vital to avoid overshadowing, excessive leaf litter and, as shown above, blockages of the channel caused by fallen branches.



One of the few unsympathetic interventions: an original stone wall built up in brickwork at the junction with the Lea-wood Arm.



The level of tree cover in many places is damaging aquatic habitats, obscuring important historic views and causing a maintenance problem.



Loco shed (originally a transhipment shed) at High Peak Junction: demolished in the 1970s—one of the few lost structures on the Canal. Photo 1953.

Introduction to Policies

The County Council's ownership of the Canal and Railway, including High Peak Junction, are of benefit for the conservation and enhancement of these historic features. It allows for an integrated approach to their conservation management by a body which has the skills and capacity to manage risks and liabilities.

A successful public resource + visitor attraction

The Canal and High Peak Trail attracts some 200,000 visitors a year – not far short of capacity given Site of Special Scientific Interest (SSSI) status and the appeal of a relaxed country experience. The need is to improve the quality of the visitor experience rather than greatly increase numbers.

P1 An improved visitor experience will be developed

The Canal will continue to be managed in the context of its World Heritage and SSSI status to accommodate a mixture of recreational, educational, tourist and ecological uses. An improved visitor experience will be developed for a target increase to 250,000 visitors a year.

Management liability

The Canal and Trail represent a complex management challenge. Liabilities include:

- *a site of world heritage significance, largely falling within designated conservation areas and including many listed and scheduled structures with both statutory protection and owner's responsibilities*
- *statutory responsibilities of a Site of Special Scientific Interest with protected species present*
- *unconstrained public access*
- *an unguarded waterway*
- *an engineered waterway which is vulnerable to leaks and breaches and requiring constant maintenance*
- *responsibilities to adjoining owners*
- *limited opportunities for generating direct income*

P2 Partnership expansion will be explored

The County Council will explore partnership arrangements with those groups or bodies which can provide technical expertise or resources.

Historic structures are deteriorating

The historic structures and landscape, which are such a remarkable survival, are increasingly vulnerable to invasive vegetation; work required goes well beyond day-to-day maintenance. The future of the waterway is threatened by the condition of supporting walls and structures.

P3 Repair/restoration of Canal and Railway structures will be undertaken to ensure structural stability

The County Council will incrementally repair and restore the canal and associated historic structures requiring remedial work, as identified by the engineering study.

The SSSI is in an unfavourable condition

The aquatic biodiversity identified by the SSSI citation has declined and remains in unfavourable condition throughout 50% of its length. The habitats of protected species, which were not mentioned in the citation, eg water vole, are in decline. Recovery will not be achievable if water management and channel improvements are not instituted as a matter of urgency. The Ecology Report details the problems and outlines a series of Ecological Management Objectives. The County Council has a statutory duty to maintain, restore and enhance the wildlife habitats of the SSSI.

P4 Ecological management objectives will be addressed as a priority

- Recommendations from the Ecologist's report will be addressed by working with Natural England and Derbyshire Wildlife Trust.
- An Ecological management Plan will be prepared with Natural England.

The low water levels contribute to the decline in the condition of the canal

Low water levels, lack of flow, leaks to the channel lining, sediment build-up and vegetation in the water channel mean that in many places the waterway is no longer recognisable as a canal; its biodiversity value is threatened and the canal is not navigable. Methods of providing adequate water supply and control should be found to ensure the breadth, depth and flow of water is sufficient to support the wildlife, navigation and the interpretation requirements aspired to in the other policies.

P5 Works to improve the water level, water quality and to restore the flow will be addressed as the first priority

- A hydrological study will examine the water supply issues
- An engineering study will identify potentially vulnerable structures and locations on the canal subject to potential leakage or overtopping
- A 4m wide channel, 900mm deep will gradually be cleared by dredging along the 5 mile length to address biodiversity, built heritage and navigation requirements.
- A limited number of boat movements, primarily for maintenance, will help keep the channel clear to the benefit of wildlife, maintenance and interpretation.

Unsympathetic interventions

Earlier restoration work was carried out with inadequate funding and before the value of traditional methods and establishing authenticity was fully understood, although the extent of unsympathetic interventions is far less severe here than with other canal restorations of the period.

P6 Restoration, enhancement and maintenance works will be conservation-led.

- International, national and canal conservation best practice (built and natural heritage) will guide all works of repair, restoration and renewal.
- An archaeological assessment will precede all significant works.
- An Ecological Management Plan will be agreed with Natural England

Loss of historic landscape

Recent years have seen the loss of many important views: the stately Pumphouse and its chimney, for example, previously a highly visible landmark and symbol of the Canal, completely disappears in summer, engulfed by tree growth, as does the Leawood Aqueduct.

P7 Opportunities, when they arise, will be taken to restore important views by selective tree felling and management

- Tree management will include selective clearance in priority locations, to benefit the historic landscape character of the working canal and its biodiversity, conservation and interpretation.
- Work will be guided by ecological requirements, historic records and photographs and the advice of the District Councils.

THE VISION

The Cromford Canal, High Peak Trail and associated features will be developed and managed in a way that recognises their great historic significance and ecological importance: a key component of the Derwent Valley Mills World Heritage Site cultural landscape.

A mixture of high quality recreational, leisure, interpretative and educational experiences will be offered.

The process of revitalising the Canal will be inclusive and participatory, harnessing the tremendous interest and enthusiasm which this beautiful sliver of historic industrial landscape generates.

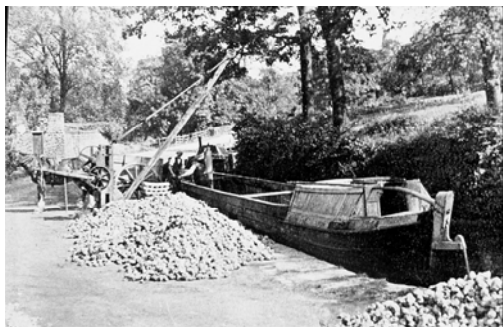


Generally stone edges to the Canal are found at wharfs and either side of bridges. Here, the Canal narrows for a wharf or crossing place some distance from any obvious activity or route.

7 ISSUES + PROBLEMS: POLICIES + OPPORTUNITIES



The quality of signage on the Canal is very mixed. Signage will need to be well planned, sensitively designed and allow for future adaptation and addition.



Lea Wharf in the 1930s. Cargoes of lead ingots and coal stacked on the wharf are described in Alison Uttley's autobiographical recollections of the Cromford Canal. The base of the crane survives.



The stop lock at the junction of the main canal and the Leawood Arm, parts of which are under threat of imminent collapse. Between here and Lea Wharf much of the canal is completely dry.

Gaps in statutory protection

There is no statutory protection for the Canal as a whole. The World Heritage Site designation is not statutory (although this may change). Not all of the areas of high heritage significance are included in one of the several Conservation Areas—all of these south of Whatstandwell. A number of important buildings and structures are neither listed or scheduled.

P 8 Increased statutory protection will be sought for the canal and the railway corridors as a whole and for individual features

- The County Council will seek Listing/Scheduling (subject to current changes in legislation) for important buildings and structures which are at present unprotected as identified by this report.
- Conservation Area boundaries are currently under review by the local planning authorities.

The Canal is not navigable

There is now no boat traffic on the Canal, most of the waterway is not navigable. The lack of boat movements has contributed to the silting up of the aquatic habitat and makes understanding the function of the historic canal difficult. Maintenance access is very difficult without the use of boats to move plant and dredgings

P9 A navigable channel will be restored to enable maintenance and to improve ecological health and water level management

- The Canal channel will be made navigable by establishment of a 4 metre channel for maintenance/construction boats passage, to help keep the channel clear and to enable the passage of horse drawn boats for interpretation between Cromford Wharf and High Peak Junction

Lack of physical access points for interpretation

There are few formal access points for maintenance vehicles north of Whatstandwell and none to the south. This contributes to the difficulties and expense of maintaining the Canal. There is a need to identify further physically possible access points and to seek formal agreement for access.

P 10 Identification of improved points of access to the canal will be initiated.

- The County Council will work with adjoining land owners to improve the number and quality of points of access at bridges.

Conservation and interpretation efforts need to be focussed

At High Peak Junction and Leawood Pumphouse a considerable amount of conservation and interpretive work has been undertaken since the 1970s. Whilst the valuable buildings and artefacts have been presented with care, the significance of their heritage is not emphasised or explained. It is also difficult for visitors to appreciate :

- *how the railway linked with the canal at High Peak Junction, due to the complete removal of the canal-side tracks*
- *how the Junction tracks linked with the High Peak Railway, due to obscured view and lack of tracks up the incline plane.*

Some areas along the canal are in favourable or improving ecological condition. Further significant and visible improvements could be achieved quite quickly if work was concentrated at these locations, for example at Whatstandwell and Gregory Winding Hole.

Tree removal is needed in order to:

- display interrelationship of landscape heritage*
- improve aquatic habitat*
- reduce dredging requirements*

P11 The County Council will initiate a programme based on conservation and interpretation priorities

- The first priority will be locations where built and natural heritage is under imminent threat .
- The second priority will be projects which enhance the group value and context of significant groups of buildings and features. Locations which are still species-rich will form the focus of SSSI enhancement.
- Highest priority will be given to places where these two factors coincide (eg High Peak Junction, Gregory and Whatstandwell) so that efforts have maximum effect.

The High Peak Junction will require proposals that will present and interpret the whole of this highly significant historic complex.

The management recommendations in the Ecology Report identify a programme of tree felling and management, much of which will require a felling licence. Tree removal to reduce shading and leaf litter will require ongoing management. This will need to be prioritised according to greatest benefit and will require on-going management. Increased light levels in the channel will encourage aquatic plant growth which will also require on-going management. The necessity for tree clearing will need to be explained to the public.

There will be a focus on restoration and interpretation of the built heritage setting where there are particularly important buildings and structures and where the constructed nature of the canal and its wharfs and access points is clearly demonstrated.

Lack of focus and orientation to the visitor experience

A lack of signposting, information and easily available orientation has been identified by the Access and Interpretation consultants . There are no facilities for larger groups including school parties and no infrastructure to support fieldwork activities.

The full length of Canal between Ambergate and Cromford does not at present provide an easy route on foot . Trains are insufficiently frequent and unreliable. The potential for bringing people into the World Heritage Site by rail , avoiding the congested road and offering enjoyment of the natural and built heritage of the Canal is being addressed by the Derwent Valley Rural Action Partnership.

P12 The County Council will seek to provide an improved visitor experience

Local repeat visitors and those from further afield should be offered an enhanced experience through:

- physical improvements including better visitor facilities, access measures, repair and restoration of the heritage, improved cultural and natural heritage interpretation and educational facilities.
- High quality fieldwork resources and facilities should be provided at the key locations.
- Access from the three railway stations and improved parking, at High Peak Junction, Whatstandwell and Ambergate, needs resolving.

Poor access for people with disabilities

Routes, buildings and features are not wheelchair accessible and much of the interpretation material and signage is not accessible to people with sensory impairments. The County Council has a statutory duty to make all reasonable efforts to make their services accessible to all disabled users.

P13 The County Council will initiate access improvements to routes, buildings, facilities and interpretation except where this will prejudice the heritage designation

The 5 miles of canal towpath, all on one level, presents a rare opportunity in a rural area to provide wheelchair access to an extended outdoor route. Full access will be provided north of Whatstandwell and greatly improved access to the south. Adaptations to improve access to historic buildings and features or devising of imaginative alternatives will be a priority where possible.

7 ISSUES + PROBLEMS: POLICIES + OPPORTUNITIES



Photomontage by Val Roberts (Friends of Cromford Canal) showing a horse-drawn boat mooring up at the modern-day Cromford Wharf.



It is much easier to appreciate the site of the boat-building wharf at Whatstandwell from this old postcard which shows it free of trees.



The interior of High Peak Junction Work-shops, preserved exactly as they were when the railway closed in 1967. They are open to the public but little-visited by the large numbers of people who pass through the Junction and buy snacks and souvenirs at the shop.



This postcard of a horse-drawn canal boat passing under Chase Bridge illustrates the width the towpath will have been along the length of the canal— wide enough for two horses to pass.

7 ISSUES + PROBLEMS: POLICIES + OPPORTUNITIES



Following heavy rainfall the rangers are on call day and night to adjust the sluices to avoid overtopping or breaching of the canal walls: a catastrophic occurrence both for the canal structure and for adjoining owners.



Demonstration of the necessity of vigilant maintenance: the Canal overtopped its banks at Lea Wood in 1920 where a steep embankment supports the channel as it rounds the hill.



Most access points onto the Canal are neither accessible for disabled people nor for maintenance vehicles.



A County Council ranger gives a talk at High Peak Junction to members of the Transport Trust who have travelled from all over the country for the occasion.

Development of workforce capacity and retention of skills and knowledge base

Considerable knowledge and expertise has been developed amongst the Countryside Service staff who are responsible for management of the Canal and Trail.

However, there is insufficient person-power, and in some cases expertise, to carry out all the management and maintenance tasks identified as needed to arrest decline as well as to provide the services required to ensure that the visitor experience is a safe, enjoyable and informative one.

There is a danger that specialist and site-specific knowledge will be lost when individuals leave and there is a lack of formal training in habitat and built heritage and collections management.

P14 Workforce capacity, expertise and training will be expanded

The County Council will retain a workforce with the capacity and knowledge-base to effectively manage, maintain and develop the historic Canal (and the associated Trail) in the context of its SSSI designation and the authority's environmental policies.

- A training programme will focus on appropriate skills and capacity gaps.
- Work will be carried out in line with the authority's environmental policies.
- Site information will be systematically recorded.
- Artefact collections displayed in the various buildings will be catalogued.

Volunteers and waterways experts

Historic canals and railways can attract volunteer effort and enthusiasm and a considerable body of expertise. There are a number of bodies which exist to manage, guide and represent waterway interests and provide assistance.

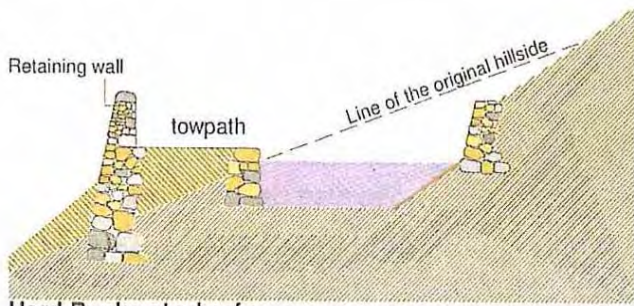
P15 The County will work in partnership with volunteers

- The County will work with specialist organisations, volunteer groups and individual volunteers to expand the capacity and expertise of the existing team.
- The role of regular volunteers will be formalised, their training and the servicing of their needs will be considered.

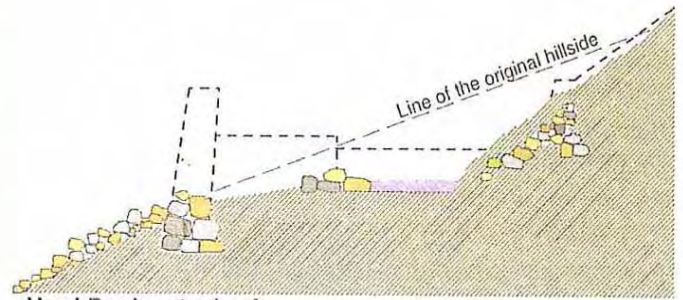


Members of the Leawood Pump volunteer group working on one of the boilers. The group maintain all the machinery as well as putting the pump in steam on regular open days.

7 ISSUES + PROBLEMS: THE CONSTRUCTION OF THE CANAL

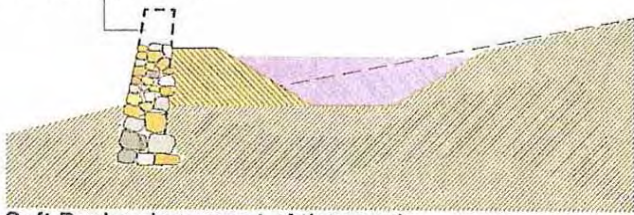


Hard Banks at wharfs



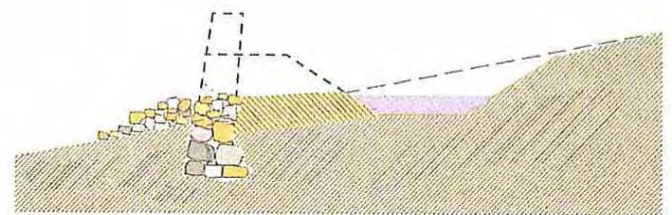
Hard Banks at wharfs

The parapet wall to the towpath has been reduced or taken away in places



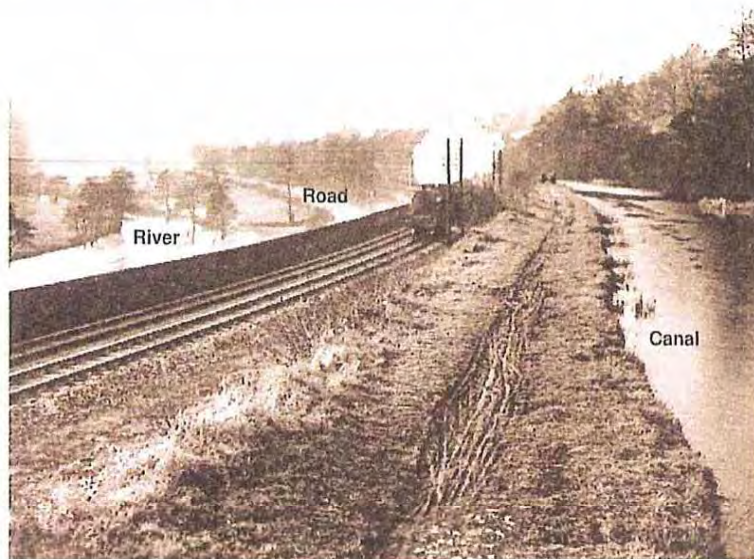
Soft Banks along most of the canal

DIAGRAMS SHOWING TYPICAL SECTIONS THROUGH THE CANAL STRUCTURE



Soft Banks along most of the canal

THE POSSIBLE CONSEQUENCES OF RETAINING WALL FAILURE ON THE DOWNHILL SIDE



The railway in the days of steam

Tree growth here is particularly damaging to the retaining structures

The Railway squeezed between road and canal in 1849

The Canal 1794

A6, the original Turnpike Road of 1817

The River Derwent



DIAGRAMS SHOWING THE TERRACING CONSTRUCTED TO SQUEEZE IN THE THREE TRANSPORT ROUTES ALONG THE STEEP SIDES OF THE RIVER VALLEY