

The Lower Derwent Valley Landscape Partnership Scheme



Landscape Conservation Action Plan (LCAP)



The White Peak

"...it was veined with a network of old stone walls, dividing the fields, and broken here and there with ruins of old lead-mines and works. A sparse stone farm bristled with six naked sharp trees. In the distance was a patch of smoky grey stone, a hamlet.....stone fences under the sky, looking for the curves downward that indicated a drop to one of the underneath, hidden dales."

DH Lawrence 'The Virgin and the Gypsy

The Peak Fringe and Lower Derwent Valley

"Little flowery fields of every shape and size, square fields, triangles, fish-shaped fields with odd corners, rhomboids, bounded by green hedgerows and black walls, linked arms and ran up hill and down dale, round the folded hills out of sight into countless valleys beyond where the sun set."

Alison Uttley 'The Country Child'

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The Lower Derwent Valley Landscape Partnership Scheme

^{1.0} Executive Summary

This Landscape Conservation Action Plan (LCAP) has been developed over a fifteen month period commencing in February 2012 by the DerwentWISE Development Officer and the Landscape Partnership Board.

DerwentWISE is located along the Derwent Valley in the centre of Derbyshire, within the districts of Derbyshire Dales, Amber Valley and the unitary authority of Derby City.

The Scheme area covers 71km2 and follows the River Derwent for approximately 24km (15 miles) from the flood plain on the edge of Derby, at an elevation of 45m, to the limestone gorges surrounding Matlock Bath and Cromford at an elevation of 358m.

DerwentWISE is special; it is where the gentle landscape of the lowlands of England meets the rugged uplands of the Peak District. This gives rise to an outstanding diversity of landscape, geology and wildlife characterised in the north by open upland pasture and large expanses of steep-sided woodlands hugging the hillsides. Travelling south the valley broadens to a more open landscape with riverside meadows until it is edged by the urban landscape of Derby.

This dynamic landscape was recognised by early industrialists who harnessed the power of the River Derwent to create the first factories in the world, stamping their authority on the landscape and leaving behind a legacy of historic mills dotted throughout the valley. Much of the area now forms part of the Derwent Valley Mills World Heritage Site.

The Valley is also exceptionally rich in wildlife, with internationally important ash and oak woodlands, and an abundance of wildflower-rich meadows and pastures. Wetlands associated with the rivers and streams also provide breeding and wintering habitat for many birds and other species.

Despite the importance of this landscape, many of its special qualities are in decline, with a loss of traditional landscape features such as dry stone walls, species rich wildflower meadows and a lack of woodland management. Much of this decline is due to lack of support, knowledge and understanding. While the World Heritage Site is globally recognised, little recognition has been given to this wider landscape. DerwentWISE will address this imbalance.

Local people are the key to the conservation of this landscape, and it is vitally important to engage them in projects to protect, enhance and wisely develop it for future generations. The community engagement work we have undertaken has demonstrated that there is a strong base of community support. If we are going to pass on this unique landscape to future generations, it is vital that we act now.

Kevin Mann

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^{2.0} Introduction

In August 2011 the Heritage Lottery Fund gave approval to the Lower Derwent Valley Partnership to submit a full application for a landscape scale rehabilitation initiative along the Lower Derwent Valley.

The DerwentWISE Landscape Conservation Action Plan is the result of over 18 months work by the DerwentWISE Landscape Partnership following this approval. The process started in earnest in February 2012 following the appointment of the scheme development officer.

Although the document has been developed and compiled by the scheme development officer Kevin Mann and colleagues at Derbyshire Wildlife Trust, especially Mathew Croney, Director of Living Landscapes and Slava Haynes, Finance Manager, it is a collaborative document with significant contributions from:

Alison Baker – Partnerships Co-ordinator, Environment Agency

Barry Joyce MBE - the Derwent Valley World Heritage Site.

Cathy Cooke – Eco Centre Manager, Derbyshire County Council

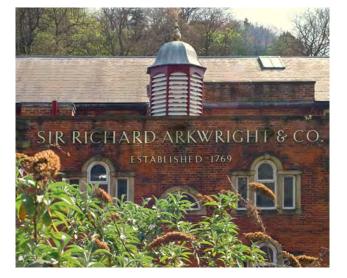
Daniel Abrahams – Lead Advisor Sites of Special Scientific Interest, Natural England.

Dave Barrett – County Archaeologist, Derbyshire County Council

Glynis Foster – Senior Landscape Architect, Derbyshire County Council

Tim Allen – Inspector of Ancient Monuments, English Heritage

The Partnership is led by Derbyshire Wildlife Trust and includes Derbyshire County Council, Natural England, The Environment Agency, Derwent Valley Mills World Heritage Site Partnership, The Forestry Commission,







English Heritage, The National Stone Centre, Fleet Arts, The Arkwright Society, Derby City Council, Derbyshire Dales District Council, Amber Valley CVS and the University of Derby. The National Farmers Union although not a full partner, is a supporting member. The members have overseen the process from the earliest stages and committed a great deal of time, effort and energy. Without their input this document wouldn't have been possible.

^{2.1} Plan Author

The LCAP was written and co-ordinated by Kevin Mann Dip LD; CMLI, as the Landscape Partnership Development Officer. He was appointed on the 31st January 2012 by the Derbyshire Wildlife Trust to develop the second phase of the Scheme. By background he is a chartered landscape architect with a wide range of expertise from planning through to - large scale project implementation working within private practice and local government. In recent years he has worked for both British Waterways and the Inland Waterways Association as restoration manager on the Grantham Canal.

He has had invaluable support from the Derwent Valley Partnership Board and the working groups established as required to cover the Landscape Partnership Programmes. The membership of these groups is provided within the Appendices.

Finally and perhaps most importantly the plan wouldn't have been possible without the members of the public and community groups who have put forward the many project ideas. A full list of these and key contacts are provided within the Appendices.

^{2.2} Summary of development phase consultation

Consultation was undertaken through two processes, firstly by Barker Langham who are professional community engagement consultants and by the project development officer and members of the Partnership.

a) Barker Langham consultation study

Barker Langham, were appointed following a successful tender which was assessed on both cost and experience. It commenced in May 2012, and was completed in October 2012. Their consultation consisted of the following:

- Attendance at local fairs and festivals such as Cromford Fair, Ambergate Carnival, Belper Food Festival, Derby Family Fun day.
- On street community engagement in Matlock Bath and Matlock.

- Questionnaires Were available on line and handed out at events attended. 215 responses were received.
- Focus groups three focus group meetings were held, at Darley Abbey (Derby), Belper and Cromford. These events were aimed at community groups and organisations. There were a total of 44 attendees.
- Youth and young adult engagement 57 youths were met from Highfield's Secondary School, Matlock and from the Derby Young Farmers Group.
- School Interviews a mix of interviews was held both urban and rural, including secondary and primary.
- Targeted interviews including Derby West Indian Community Association, the Arboretum Project (a Derby inner-city ward on the edge of the scheme area) and Jobs Education Training (JET), Derby's largest BME organisation.

An appraisal of the Barker Langham consultation findings is covered in 3.4.1, a list of all organisations contacted and letters of support is in Appendix 12.19.







b) Project Development Officer / Partnership

Running in tandem with the Barker Langham consultation, the project development officer and members of the partnership undertook the following:

- Presentations to community groups and societies (eg. Friends of Darley Open Spaces, High Edge Historical Society, Alderwasley Parish Council)
- Wirksworth Environment Day.
- A farmers' consultation event.
- A woodland owners' consultation event.

^{2.3} The DerwentWISE Landscape Partnership Area

The DerwentWISE area is located in the centre of Derbyshire within the Districts of Derbyshire Dales, Amber Valley with a very small area within Erewash.

Broadly it extends from the Peak District National Park's southern boundary at an elevation over 1,000 ft (303 metres) down to the lowland flood plain surrounding Derby at an elevation of 45 metres.

The area largely corresponds with the buffer zone of the Derwent Valley Mills World Heritage Site (DVMWHS) which extends for 15 miles (24km) between Derby and Matlock. This area has been defined as being critical in maintaining the setting of the DVMWHS. In the north it stretches from skyline to skyline while in the south where the valley is less marked, the valley is defined by Landscape Character Areas and designated sites.

In addition the boundary of the DerwentWISE project area includes two further areas, both defined by physical boundary features.

- The hills around Riber, included for their wooded character and geology and because they form a watershed, being the limit of the Derwent Valley on its northern extent through to Matlock.
- The Via Gellia and Bonsall limestone dales, included to capture the Via Gellia Woodlands, Rose End Meadows and Colehill Quarries Sites of Special Scientific Interest (SSSI) and the immediate surrounding landscape. The Via Gellia woodlands link directly into the Derwent Valley woodlands and form part of the same wooded landscape.

Since the stage 1 application some minor additions have also been included to the project area, which include:

- Minor modifications between Derby and Little Eaton to include the Derwent Valley Heritage Way.
- Quarry remains on the edge of Little Eaton.
- The inclusion of the remains of the historic Cromford Canal aqueduct at Bullbridge.
- The inclusion of all of the Crich Tramway Museum. The previous boundary only clipped the historic museum which is an integral part of the valley landscape.
- Rationalisation of the boundary on the north side of Wirksworth.

Map showing the relationship of DerwentWISE to the DVMWHS

^{2.4} Brief description of the plan

While the World Heritage Site is globally recognised little recognition has been given to the value of the wider landscape, such as its internationally important ancient woodlands, pre-industrial archaeology, diverse geology or species-rich wetlands and meadows. The DerwentWISE project will involve the public, particularly local communities and landowners in improving and maintaining this landscape.

The Landscape Partnership aims to safeguard and restore this unique landscape by:

- Restoring, linking and extending habitats and geological sites.
- Ensuring that the character of the wider landscape, which includes walls, hedgerows and ancient trees, is protected and enhanced.
- Improving access to and better interpretation of heritage sites and features.
- Promoting public engagement by ensuring that communities feel proud of their landscape and ensure they are equipped to be involved with its long-term care.

^{2.5} Limitations and gaps

The DerwentWISE project area is an extremely rich landscape with a wealth of heritage, a complex landscape and - extending from moorland tops to an inner city with a diverse culture. The development period has been extremely fast moving and the amount of time available has proved challenging. This has particularly been the case as far as the consultancy studies were concerned, with nearly all requiring additional time.

Within Derby, a flood relief scheme is proposed which undoubtedly will open up opportunities for future partnership working, although currently it is too early in the development stage to identify precisely what and where.

The current economic climate has proved challenging, both from the perspective of local authority financial input and as far as private companies are concerned. The largest business within the area is Tarmac, which over the past 12 months has been merging with Lafarge and as a result has been unable to join the project, either as a partner, funder or landowner. We are still confident that they will join DerwentWISE in some form in the future. Their membership will be a project team objective in Year 1.

Finally, many of the projects are small community based projects. Although all the projects are fully developed for Year 1, Year 2 – 5 projects are developed as far as practicable at this stage.

^{2.6} Important documents

^{2.6.1}There are an extensive range of documents which could be read with this plan and include the following:

- The Landscape Character of Derbyshire. (Derbyshire County Council 2003)
- Nomination of the Derwent Valley Mills for Inscription on the World Heritage List, (Derwent Valley Mills Partnership 2000).
- Derwent Valley Mills World Heritage Site Management Plan.
- Derwent Valley Mills World Heritage Site Arts Strategy
- Derwent Valley Mills World Heritage Site Economic Development Plan
- Derwent Valley Mills World Heritage Site Interpretation Plan
- · Lowland Derbyshire Local Biodiversity Action Plan
- Derby City Nature Conservation Strategy
- Lower Derwent Valley Flood Risk Management Strategy –(Environment Agency)
- Sustainable Community Strategy for each local authority
- Living Landscapes Strategy (Derbyshire Wildlife Trust)
- Derbyshire Strategic Stone Study
- Cromford Mills World Heritage Site, Gateway Centre

 Activity Plan, (The Arkwright Society, June 2010).

Regionally

 Putting Wildlife on the Map – a Biodiversity Strategy for the East Midlands ^{2.6.2} The key documents which need to be read are the bespoke consultancy studies commissioned specifically for the LCAP, which consist of the following:

- Landscape Character and Natural Heritage (Derbyshire Wildlife Trust 2012)
- Cultural Heritage Study (Heritage Lincolnshire 2012)
- The Exploitation and Use of Historic Building Material – (National Stone Centre 2012)
- Community Engagement and Learning Report (Barker Langham 2012)

Summaries of these studies are provided in 3.6 below and the full studies are available within the Appendices.

^{2.7} DerwentWISE – Landscape Partnership

The scheme has been extremely fortunate in securing Partners with a diverse range of expertise and skills. It balances national, regional and local organisations. Chaired by Dan Abrahams of Natural England it has been led by Derbyshire Wildlife Trust.

The skill base has included Natural Heritage, Landscape Architecture, Cultural Heritage, Archaeology, Geology, Forestry and Woodland Management, Countryside Skill Training, Community Arts, Voluntary Services and Education.

The membership of the Partnership includes the following:

^{2.7.1} Amber Valley Borough Council

The Borough covers an area of over 265 square kilometres and has a population of approximately 121,000 people living in 54,349 properties. Amber Valley is a mixture of rural communities in the western parishes, to more urban communities in the east.

A large proportion of the project area lies within the Borough with Dethick in the north and Duffield in the south. The Borough Council is a partner and land owner of one of the projects and is fully supportive of the whole project and benefits it will bring to the Borough. ^{2.7.2} Amber Valley Community Voluntary Services Amber Valley CVS is one of the centres for voluntary service and volunteering which are based in the Derwent WISE area. They have good links and a communication network with other CVS and volunteer centres in Derbyshire.

They are able to promote DerwentWISE to the community groups active in Amber Valley and to other CVS and volunteer centres. They can provide information about funding opportunities that are not specific to heritage and the environment to support the development of new groups and projects. They can promote volunteering opportunities that are current and emerging and signpost volunteers to the DerwentWISE partners.

They are able to offer advice on governance of the partnership and as an organisation with no specific interest in delivery of environment or heritage projects can act in a neutral position on the partnership board.

^{2.7.3} Arkwright Society

An educational charity devoted to the rescue and preservation of the built and natural landscape in and around Cromford. Based around the historic Cromford Mill, the worlds first water powered spinning mill the society is now embarking on an ambitious program of restoration and development.

Funded through the Heritage Lottery Fund and ERDF the development will create the Derwent Valley Mills World Heritage Site 'Northern Gateway Centre' with the four upper floors providing up to 100 workstations for 'creative industries'. The Gateway Centre will provide information, visitor orientation and interpretation about Cromford Mills and the 15 mile long World Heritage Site to help visitors appreciate its importance and encourage them to visit the other 16 heritage sites along the valley. A key component, developed and agreed with the World Heritage Site Partnership is a dedicated learning centre to be located in the two storey Gothic Warehouse at the terminus of Cromford Canal. The development of this facility and the development of a centre for heritage volunteering will create an ideal base to complement and work with the DerwentWISE scheme.

^{2.7.4} Derby City Council

Derby City Council, is a unitary authority of around 250,000 people, has a multi-cultural population and both areas of inner city deprivation and suburban affluence. The Derwent corridor is the major landscape feature of the City, the northern half of the valley within the City is in the World Heritage site and the Derwent WISE Scheme area, major parkland lie within this area. The City Council are fully committed to the project as a whole and to working with the Partnership on schemes within this area, designed to further the aims and objectives of DerwentWISE.

^{2.7.5} Derbyshire County Council

Derbyshire County Council has been an active supporter of the Partnership through its Planning, Countryside Adult Community Education and Environmental Studies Services. All these sections have played an active role in the Schemes development. Individual expertise has been provided by many officers including: the County Archaeologist, Sites and Monuments Record Officer, Chartered Landscape Architect, Biodiversity Project Officer and Environmental Studies Service Manager, Officers from the Countryside Section and the Eco Centre Manager for Derbyshire Adult Community Education Service.

^{2.7.6} Derbyshire Dales District Council

Derbyshire Dales District Council is a borough with a population of 70,000. Approximately one third of the DerwentWISE partnership area, at its northern end, falls within the boundaries of DDDC. The area includes the settlements of Matlock Bath and Cromford. DDDC is the principal Local Planning Authority within its boundaries outside the Peak District National Park. Priorities are focussed on: housing that meets local needs, a clean, green and prosperous Dales, safe and healthy communities. Although Derbyshire Dales DC is not leading on any projects, it is fully committed and supportive of the DerwentWISE initiative.

^{2.7.7} The University of Derby

The University of Derby is a charitable trust that employs 2,500 staff and has 23,000 students. The University became involved in this project due to its on-going commitment to the enhancement of its existing provision in the education sector. They are also committed to building links with local communities and to working to maintain sustainable environmental and cultural projects. They are always keen to collaborate with other bodies towards the enrichment of local landscape and its histories and to ensure the legacy of this knowledge is available for national and international scholars and other interested parties.

As an institution committed to cutting edge research, they are acting to develop and extend research into the academic impact and use of new technologies that have become more available in recent years and to explore new ways that this may be used.

^{2.7.8} Derbyshire Wildlife Trust

Derbyshire Wildlife Trust is the lead partner in the DerwentWISE Landscape Partnership. The Trust believes strongly that the Lower Derwent Valley is an extremely special landscape that should be both protected and celebrated. This diverse project will lead to major improvements in both the natural and built environment and will also boost people's careers, incomes and enjoyment of the area and create a place where people can truly be inspired by the landscape.

Derbyshire Wildlife Trust (DWT), a registered charity, is the leading nature conservation body in the County. Its vision is for "living landscapes, rich in wildlife, valued by everyone". It protects our wildlife, restores our landscapes and inspires people to enjoy and care for their natural heritage. With the support of over 14,000 members, it manages 41 reserves including sites of international, European and national importance, engages communities, educates and inspires young people and works with the legal and planning systems to protect our heritage. As part of The Wildlife Trusts (47 of them in total), the Trust is the local face of the largest organisation in the UK concerned with the conservation of all forms of wildlife. It is well-established, celebrating its 50th anniversary in 2012 and has a turnover of around \pounds 1.4million per year.

Derbyshire Wildlife Trust has been active in the Valley since its formation in 1962. The steep wooded slopes of the valley sides, riverside wetlands and meadows and small unimproved grasslands of the higher ground are extremely important havens for biodiversity in the County but receive little statutory protection or funding attention.

Over the years the Wildlife Trust has expanded its activities in the area to include Lea Wood, Cromford Canal and Derwentside Reserves. They have also been an active partner with the Environment Agency in improving the ecological condition of the river and surrounding land. They also have a very active local group and Watch Group (for families) and provide environmental education through our long established base at the Whistlestop Centre in Matlock Bath. Throughout this time the Wildlife Trust has met with, and worked with, many other organisations which also have a love of and responsibility for the Valley and they are very proud to be leading this partnership with them.

^{2.7.9} Derwent Valley Mills World Heritage Site Partnership

The Derwent Valley Mills Partnership works to protect, preserve and enhance the world heritage site; an industrial relict landscape of high historical and technological interest, where the modern factory system began in the 18th century cotton mills. The rural landscape remains largely unchanged from that time. The world heritage site boundaries correspond very closely to those of DerwentWISE, and the project would allow us to maintain, safeguard, enhance and restore many of the landscape features and protect the iconic views of the world heritage site, many of which are currently over-wooded. They will support DerwentWISE by contributing match-funding, resources and expertise which would help ensure the overall success of the project.

^{2.7.10} English Heritage

English Heritage (The Historic Buildings and Monuments Commission) is a non-departmental public body set up by Parliament to act as the Government's expert advisor on all aspects of the historic environment. In this role they have been very keen to work with local and national public, private and third sector organisations in the DerwentWise HLF Landscape Partnership Project. The project they hope, will protect, enhance and better reveal the outstanding universal value of the Derwent Valley Mills World Heritage Site and associated Ancient Woodland. In preserving the significance of landscape scale historic assets such as the World Heritage Site the public understanding and celebration of significance is particularly important. Only by the community in its widest sense having ownership of the outstanding universal value of this landscape can an approach of informed conservation be embedded in the ongoing processes of dynamic change which shape its survival.

^{2.7.11} Environment Agency

Reducing the risk of flooding to properties, and ensuring our lakes, rivers and stream achieve a good water quality status are key objectives for the Environment Agency. They are currently seeking opportunities to use changes or improvements to land management throughout the River Derwent (Derbyshire) catchment to achieve this. Working with natural processes also has the potential to help address the future impacts of climate change. As one of the four strands of the DerwentWISE Landscape Partnership project is to restore the natural heritage in the vicinity of the World Heritage Site, many of the proposals, including woodland management and creation, have the potential to contribute to their objectives. This is an exciting initiative, which the Environment Agency are keen to support; it will contribute to the 'catchment based approach' currently being promoted by DEFRA, and will deliver multiple outcomes for the environment.

They will be able to contribute funding from their Environment Investment Program next financial year (2013/14) towards the delivery of the Natural Heritage program.

2.7.12 Fleet Arts

Fleet Arts was set up in 1985 as a registered charity and company limited by guarantee. Its focus is on developing work across mid-Derbyshire. Fleet Arts is committed to increasing access to and participation in a wide range of art-forms. It has developed and delivered hundreds of projects across Derbyshire including heritage based ones. It has a good track record of delivering and managing projects and working within partnerships. Fleet Arts receives some core funding from Derbyshire County Council with the remainder and all project costs coming from grants, commissions from other organisations and from participants.

2.7.13 Forestry Commission

They are a government department responsible for the protection, improvement and expansion of forests and woodlands in England to increase their value to society, the environment and the economy."

Protecting, improving and expanding our woodlands will ensure that they can flourish in the face of climate change, pests and diseases, and that they can maximise their potential to support biodiversity, to provide other ecosystem services and to contribute to jobs and the economy. They deliver their role both through action on the Public Forest Estate, through the English Woodland Grant Scheme – worth £30 million in 2011/12 – and through advocacy, expert advice, information and support to landowners in both the public and private sectors. Wherever possible they also work closely with a wide range of partners including other Government departments and agencies such as Natural England and the Environment Agency, businesses, third-sector partners and private individuals.

The DerwentWISE project is important to the Commission's East and East Midlands area in that it is anticipated to deliver woodland management and expertise within one of the largest broadleaved wooded landscapes in the region. They hope to be able to contribute towards this project though the English Woodland Grant Scheme or it's successor providing support for woodland management and creation for private landowners. The local Woodland Officer will be available to sit on the Partnership Board and assist the DerwentWISE team in providing advice to the project and individual landowners.

^{2.7.14}Natural England

Natural England's aims are to secure a healthy natural environment for people to enjoy, where wildlife is protected and England's traditional landscapes are safeguarded for future generations. Natural England currently chair the DerwentWISE partnership and was instrumental in putting the project together. It has also committed a great deal of time and capital funds to support the development of the project. Therefore it has a vested interest in ensuring the success of the project. Natural England aims to support the project in the future, through spending agri-environment monies in the project area, and providing ongoing advice and expertise in biodiversity and landscape conservation.

^{2.7.15} National Stone Centre

Opening in 1990, the National Stone Centre's brief is to tell 'the Story of Stone' throughout the UK – its geological origins in deserts and deltas, its thousands of uses from motorways to milk, its historical development from flint mining to milli-second blasting and the environmental debate. As an independent charity, it seeks to deliver this by providing educational visits for all ages and interests, to its extensive, dramatic Peak District site. The latter displays probably Britain's best examples of fossilised tropical seascapes; it runs a range of traditional craft training courses, has large specialist museum and library collection and carries out research.

As a founder member, the NSC has actively supported the Partnership from the outset. It brings to DerwentWISE, a swathe of aspects fundamental to understanding development of the area and its care for the future. It provides grounding in geo-sciences and geoconservation – quite literally the foundation of the Valley. It has conducted base-line research into the dependence of its industrial growth upon the extractive industries, notably limestone, sandstone lead and coal. For the future, it plans stone-related training courses tracking and recording historical development, practical conservation of geological and industrial history features and craft training tailored to local needs.

Further details relating to the NSC are in Section 5.6.

^{2.8} Supporting members

Although not a full member we have the following organisation as a supporting member.

National Farmers Union (NFU)

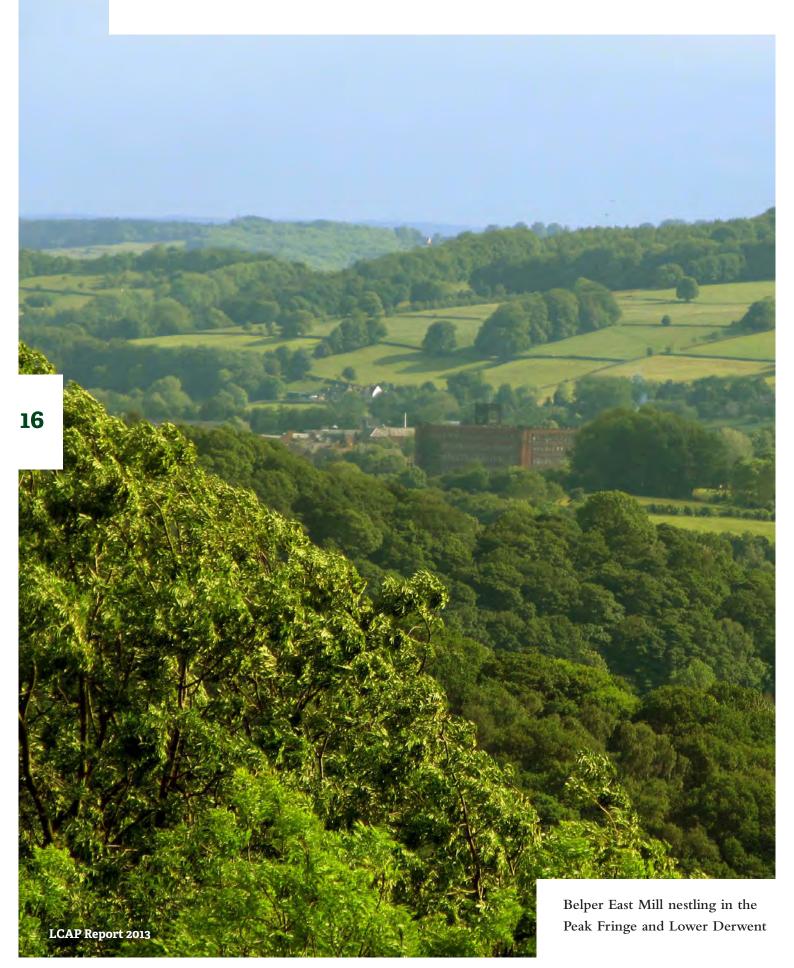
The NFU has 4,800 members in the East Midlands region out of the 6,000 farmers in the region who earn their living from agriculture. The NFU represents the views of farming and farmers to central and local government, the EU and statutory agencies and provides farmers with advice, guidance and information about issues of concern and interest to its members.

The NFU has been consulted from the outset about the DerwentWISE Landscape Partnership Scheme. The NFU is pleased to support the aims of DerwentWISE as expressed in the Landscape Conservation Action Plan. They will support the aims of the scheme and help where possible in encouraging farmers to tap into grant and advice made available.

It is intended to recruit other members as the project progresses especially from outside the public sector and representation from smaller organisations, see also Section 5.6.

We intend to recruit further supporting members as the scheme progresses.

^{3.0} Understanding the Lower Derwent Valley Landscape



^{3.1}The Landscape Character

^{3.1.1}Overview

The project area covers 15 miles of a dramatic and attractive river valley dominated by open upland pasture, patterned by dry stone walls, steep sided ancient woodlands interspersed with upland heath and small fields and riverside meadows with hedgerows enclosing pasture and wetlands.

The valley is the birthplace of the factory system which produced a fascinating series of large historic mills, historic parks and gardens, woodland and model farms and associated settlement and transport system.

This combination of this distinctive scenic landscape with its unique cultural heritage imparts a strong and unique sense of place.

The landscape character types are defined by broad tracts of landscape that have a unity of character. The character is a mix of physical and cultural landscape attributes such as tree cover and settlement pattern.

Whilst the first section of this chapter deals mainly with landscape character and natural heritage the picture would not be complete without reference to the cultural landscape heritage - see 3.1.1 b) which needs to be read in conjunction with 3.2 The Heritage.

a) Physical and Natural Landscape

In the north the River Derwent carved through the Carboniferous limestone to create the dramatic scenic gorge at Matlock Bath and additional water forces formed the steep dale of the Via Gellia. The steep wooded limestone dales and slopes are overlooked by a plateau of pasture enclosed by dry stone walls with isolated small field barns. This is the landscape of the White Peak.

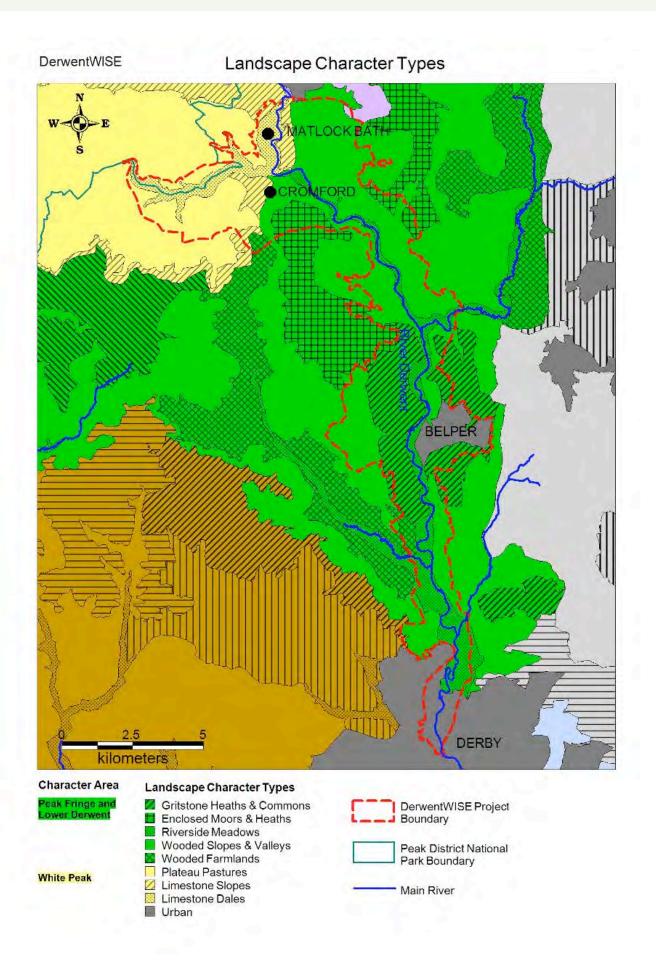




Water courses meet at Cromford and proceed southward through the Millstone Grit creating steep valley sides to Ambergate before widening out into a more gentle and spacious valley through Belper and onto Derby. Again the landscape is dominated by wooded slopes and valleys overlooked by localised areas of gritstone heaths and commons and small patches of enclosed moors and heaths. This is the landscape of the Derbyshire Peak Fringe and Lower Derwent.

Riverside meadows occur along the river with localised variations such as valley width due to the distinct geology and topography.

These distinct national landscape character areas (White Peak and the Peak Fringe and Lower Derwent) form the spatial framework for the landscape and natural heritage of the project area. They have been sub divided into more detailed 'landscape character types' which will inform the project as necessary e.g. hedgerow planting species mixes. The plan on the follwoing page shows the distribution of these national character area and sub landscape types in relation to the project areas as described in the Derbyshire County Council's 'The Landscape Character of Derbyshire .



National Character Area (NCA)	Landscape Character Type (LCT)	Summary of key characteristics
White Peak	Plateau Pastures	A gently rolling, upland limestone plateau characterised by nucleated limestone villages, dry stone walls, a pastoral land-use and open and expansive views. Sparsely scattered, but visually prominent, small plantations with tree groups around farmsteads and settlement.
	Limestone Slopes	A landscape of small nucleated limestone villages and dispersed farmsteads nestling within moderate to steeply sloping limestone slopes. Distinctive dry stone walls enclose former open fields and semi- regular fields with a pastoral land use. Scattered small plantations, occasional semi-natural woodland and small tree groups around farmsteads and settlement.
	Limestone Dales	Narrow, deeply incised river valleys with steep slopes and extensive amounts of exposed rock. There are blocks of woodland, much of ancient origin and scattered watercourse trees. Areas of scrub and rough grassland grazed by sheep.
Derbyshire Peak Fringe and Lower Derwent	Wooded Slopes and Valleys	This is a landscape of small pastoral fields on undulating, rising ground. Woodlands many semi- natural on steeper slopes, some of ancient origin, along steep slopes and valley sides, with densely scattered hedgerows and streamline trees contribute to a strongly wooded character.

National Character Area (NCA)	Landscape Character Type (LCT)	Summary of key characteristics
Derbyshire Peak Fringe and Lower Derwent	Riverside Meadows	Broad, flat flood plains hold meandering rivers, with scattered trees along the river bank. Scattered boundary trees and transport routes punctuate the pastoral landscape.
	Gritstone Heaths and Commons	Undulating gritstone slopes and hilltops characterised by geometric and regular field patterns with dry stone walls or thorn hedges. Sandstone farmsteads are scattered through the landscape, and clustered cottages and roadside dwellings are found on enclosed commons. Undulating slopes and hilltops with occasional small plantations and tree groups around farmsteads and settlement
	Enclosed Moors and Heaths	Undulating slopes and hilltops with occasional small plantations and tree groups around farmsteads and settlement. An open, unwooded landscape on broad, rolling hill summits punctuated by occasional small plantations and tree groups around farmsteads
	Wooded Farmlands	This is a mixed farming landscape on undulating ground. Woodlands, hedgerows and streamline trees contribute to a strongly wooded character, of small, organic woodlands, some of ancient origin, with densely scattered hedgerow and watercourse trees.

b) Cultural Landscape

In part of this dramatic landscape is the little known 'Duffield Frith' a former Medieval Forest with deer parks. Some of its remains form part of the rich historical character of this landscape however little is known about the woodland archaeology.

However the most dramatic cultural historic landscape impact on the valley happened in the 18th Century as this was the birthplace of the factory system which successfully harnessed water power for textile production. This resulted in a fascinating series of large historic mill complexes, including some of the world's first 'modern' factories. Associated with this the wealthy landowners created 18th and 19th Century historic parks, woodlands and model farm complexes. This distinctive and unique cultural, international and historic landscape has been recognised internationally and designated as The Derwent Valley Mills World Heritage Site (DVMWHS), inscribed by UNESCO in 2001.



Masson Mill



Willersley Castle

In tandem with the explosion of industrial development in the valley, associated settlement expanded with the creation of workers' cottages and houses, chapels and schools, and the first transport systems developed north to south along the river valley. The Cromford Canal was the first insertion in 1794, followed by the turnpike road of 1818, and finally the railway line of 1840, extended to the north in 1849. These changes impacted significantly on the rural landscape. The Cromford Canal, created by Jessop and Outram became a major landscape feature which is now a biodiversity asset and tourist attraction. The Derby to Manchester mainline railway still runs through the entire length of the project area, although now terminating at Matlock as a result of the Beeching cuts of 1968. The resultant branch line is still an essential commuter and tourist asset. Although none of the earlier station structures survive from the 1840 route, later stations at Cromford and Matlock Bath still retain their original charm and contribute positively to the landscape. The turnpike road of 1818 was built by the cotton manufacturers Strutt and Arkwright, to allow easier access for raw materials and finished goods to and from their mills. This is now the A6 road running north to south along the valley. As with the railway 20 years later, considerable impact was made on the valley when the road was created, with the creation of embankments, cuttings, walls and toll buildings.

Settlement was restricted by the topography but Matlock Bath developed as an attractive Georgian spa town due to the presence of limestone spring water, a scenic gorge and riverside location. Its popularity grew considerably with the opening of the railway in 1849. The narrow gorge restricted development at Cromford but at Belper the town grew significantly, thanks to a mix of industrial developments aided by substantial quantities of water power provided by the Derwent. These are attractive



Cromford Canal

heritage rich settlements that contribute to the distinct and unique character of the landscape in the project area. The low levels of modern industrial and residential development in the valley have minimised the impact on this landscape compared to many other areas today. In heritage terms the landscape may be described as a 'relict' industrial landscape where late 18th and early 19th century industrial development may still be seen in an 18th /19th century agricultural landscape containing evidence of other early industrial activity such as lead mining and smelting.

This lack of modern impacts and the strong natural and heritage character result in the unique DerwentWISE landscape we see today.

Top: Darley Park Middle: Bonsall Moor Bottom: Milford Plantation - conifer wood with no ground flora

^{3.1.2} The present day landscape

At first glance travelling the fifteen miles through the Derwent Valley (the White Peak and Peak Fringe and Lower Derwent) it is a visually attractive, well wooded, pastoral landscape that appears to be in good condition. The DVWHS historic stone and large redbrick mills, parkland and gardens punctuate the river valley adding to the attractive and dramatic landscape, providing iconic views which contribute to the Outstanding Universal Value of the Derwent Valley Mills World Heritage Site. However the neglected condition of the landscape in the White Peak is visible especially on the upper slopes where it is more open and crisscrossed by unmanaged fields and dry stone walls with small, derelict, isolated field barns. Interrogation of landscape and biodiversity data reveals a lack of woodland and semi natural grassland management throughout, areas of neglected dry stone walls and fragmented heath and wetland habitats.







Key landscape characteristics such as woodland, grasslands, wetlands and field boundaries have barriers to effective management for example the small size and location of some of the woodlands, their lack of commercial profitability, lack of direct assistance for landowners in terms of implementing practical management due to limited resources has resulted in many sites being neglected. In some cases access to private sites may also have been a barrier to implementing management. The relatively small size of some of the grants may also be insufficient to attract landowners.



Visual intrusion on edge of Derby and negleted hedgerows

This is a distinctive, important natural and cultural landscape which on closer examination reveals a story of lack of maintenance and management combined with a lack of understanding and appreciation of the landscape. Forty Seven monitoring views within the DVMWHS have been identified as sensitive and needing to be closely monitored. This will ensure that the Outstanding Universal Value of the Derwent Valley Mills is maintained, and their setting is preserved and enhanced. See monitoring views in Appendix 12.13.

3.1.3 Future influences

a) Climate change

Some UK climate predictions are that there could more extremes of weather patterns so potentially there could be wetter, windier and or drier episodes. This could lead to flooding events and impact on the riverside meadows and settlement in the floodplain.

On a positive note the Environment Agency (EA) has a 'Derwent Valley Landscape Management Project' which includes the project area as well as the Derwent catchment area to the north. This is a land management approach working with natural processes to reduce flood risk and improve water quality; for this particular project it includes woodland planting and management, meadow restoration; planting of buffer strips, and the creation of woody debris dams: all of which aim to reduce run-off and/or diffuse pollution. There is strong evidence from the research arm of the Forestry Commission, that small scale catchment land management approaches of this type can deliver cumulative flood risk benefits by reducing and delaying the flow of water downstream. The EA are partners in the DerwentWISE bid.

Also the Derby area is particularly under scrutiny in the 'Our City, Our River' project being developed by the Environment Agency.

b) Ash dieback

At time of writing ash dieback (Chalaza Fraxinea) has been identified in England and the picture is evolving but the worst case scenario is the long term loss of ash trees which would have a potentially devastating effect on the ash woodland and tree cover of the White Peak especially the limestone dales and gorges and their associated habitats.

The DerwentWISE project will endeavour to monitor the situation and have a flexible approach to respond accordingly.

c) Development

Pressures from development such as new or change of use for residential and employment are challenging for the World Heritage Site (WHS), which provides only very limited additional protection. The establishing of a Statement of Outstanding Universal Value for the WHS in 2010 and a list of Values and Attributes recognised by UNESCO in 2010 will help to strengthen the influence of World Heritage listing in future development considerations. A supplementary planning document was adopted by Amber Valley Borough Council in December 2012, recognising the sensitivity of the landscape between the A6 and River Derwent in Belper, and adding a further layer of protection to ensure only appropriate development goes ahead on the site, which enhances rather than detracts from the 'open unrestricted views'.

d) The sky line

External influences such as the location of wind farms along the whole valley, could have a visual impact on the valley skyline and effect its scenic value and iconic views The creation of taller buildings in Derby's city centre, particularly the Westfield Shopping Centre and Jury's Inn, have impacted on views within the project area and DVMWHS, particularly looking south across Darley Park from the former Darley Hall site. The DVMWHS Conservation and Planning Panel is working with Derby City Council to ensure tall developments do not threaten the Outstanding Universal Value of the Derwent Valley Mills.

e) Agricultural changes.

Land use changes such as farming practices could possibly impact on the existing landscape character for example farmers appear to be ploughing up and reseeding former permanent pasture for silage. This intensification will impact on grassland species. The strong pattern of woodland and boundaries could provide a strong framework to absorb such changes providing that these key landscape assets are well managed and maintained for the future.

The DerwentWISE projects under this scheme will be seeking to improve habitat connectivity and robustness so landscapes may be more resilient to changes. In addition landowners could be more informed and flexible to management practices to cope with these changes.

^{3.2} Heritage and History

This section provides an overview of the archaeology and cultural heritage of the project area which has seen human occupation from the prehistoric period onwards across a rich and diverse landscape.

^{3.2.1} Prehistoric period

Evidence of prehistoric occupation is somewhat limited in the study area due partly to the topography and partly to a lack of systematic fieldwork. Nevertheless, evidence of such occupation does exist, and runs from the Late Palaeolithic through to the Iron Age, with sites tending to be more common in the upland area of the carboniferous limestone than in the valley. The nature of the evidence, which includes find spots, settlement sites, field systems and burial monuments, tends to vary from period to period.

Evidence of the earliest human occupation, in the later Palaeolithic period, comes from cave sites whilst Mesolithic finds, in the form of flint and stone tools, have been picked up from the ground surface as a result of field walking. Neolithic material is also mainly represented by flint finds, more widespread than those of the earlier period, whilst a chambered tomb at Harborough Rocks provides evidence for funerary activity within the study area. Funerary monuments become more common in the Bronze Age. With a couple of exceptions, these are generally clustered on the higher ground in the north of the study area. Evidence of Iron Age settlement can be found in the wider landscape, in the form of hilltop enclosures such as Fin Cop. However, within the study area itself, the only definite evidence of Iron Age settlement is on a natural terrace below Harborough Cave.

^{3.2.2} Romano British period

Soon after the Roman conquest, the Legions moved north through the country establishing forts in the process. One such fort lies to the north of Derby, in Strutt's Park, which was occupied by AD 60 at the latest. It was abandoned by AD 80 in favour of a new fort built on the east bank of the River Derwent in what is now Little Chester. This eastern fort later developed into the small town Derventio, with areas of civilian occupation to the north and south of the fort. The civilian settlement, or vicus, outside the fort served both the army and an industrial area to the east, where pottery manufacture and metalworking were carried out. Further east was a cemetery, with one walled enclosure and six known mausolea lying alongside a road. The Roman military occupation of Derventio probably finished around AD 200, although civilian settlement, which included the refortification of the walls, continued into the mid 4th century.

Other known industrial sites in the Romano-British period include pottery kilns along the west bank of the Derwent north of Duffield and the manufacture of quern stones at a recently discovered site at Blackbrook, west of Belper. In the north of the study area, lead was certainly being mined at this time. Although Roman lead working remains have generally been removed by later mining, ingots of lead from this period are known from Cromford Moor and Carsington.

Outside of Derby, but within the study area, Roman period settlements are known from Rainster Rocks in Brassington parish in the White Peak, and from Blackbrook. Field systems also tentatively assigned a Roman date probably indicate nearby settlement sites as yet unlocated.

^{3.2.3} Saxon

The earliest evidence for Saxon occupation within the study area is a late 5th to 7th century cemetery at Little Chester and an isolated burial at Duffield Castle. Evidence from place names and documents indicate that many of the villages and towns have their origins within this period, although archaeological evidence is largely absent. Lead mining is known to have continued throughout this period, but as with the Romano-British period, there are no known lead workings that can be identified as Saxon. Derby was one of the 'Five Boroughs' of the Dane law, created soon after the Viking invasions of the late 9th century. Defence was an important function of these boroughs and a stronghold at Derby is referred to in the Anglo-Saxon Chronicle for the year AD917. However, no trace of 10th century defences have been found and it has been suggested that the Roman defences of Little Chester were renewed to serve this function.

3.2.4 Medieval

After the Norman Conquest, tracts of land in Derbyshire were granted to Henry de Ferrers whose estates in the study area stretched from the outskirts of Derby along the river as far north as Middleton. This area later became the Duffield Frith, a private hunting ground. Within the Frith, a number of smaller hunting parks were established. The boundaries of many of these parks can be traced in the modern landscape. Woodland management was also important and remains may survive of features such as charcoal burning platforms

Henry de Ferrers built Duffield Castle overlooking an important crossing of the Derwent, from which to administer his estates. The castle was originally of motte and bailey type, with a stone keep added in the latter part of the 12th century and probably demolished in the mid 13th century. There is little to see of this once important castle other than the motte and the outline of the keep.

The town of Derby developed from its Viking burh into the administrative centre of the county. There are references to it having had a defensive circuit, and a ditch which has recently been identified in excavations may have formed part of these defences. It also had a castle (south of the study area), the site of which has been redeveloped. The Domesday Survey of 1086 indicates a prosperous centre with four churches and a number of water-mills.

Within Derby, the sites of a number of religious houses fall within the study area including the priory of St Mary de Pratis and a Dominican Friary although nothing of these survives above ground. The largest of the religious houses was Darley Abbey which was originally founded as a small priory close to the city walls of Derby in the early 12th century but was refounded later in the same century on a new site. It escaped the first wave of suppression and was eventually surrendered in 1539. The Abbey pub is thought to be the only surviving aboveground structure belonging to the abbey.

Darley Abbey, as well as other monastic houses, held property throughout the study area ranging from monastic farms (granges) to chapels. The upland granges were probably primarily for sheep rearing.

In the medieval period, lead mining was controlled by the Crown. Lead from Derbyshire was widely exported, both within England and abroad. Despite the documentary evidence, only a few lead mines have been identified as having medieval origins due largely to reworking when new mining methods were employed in the postmedieval period.

Evidence of the exploitation of other mineral resources during this period include 14th century references to a coal mine in Morley Park. Coal was used for the forges at Belper that were producing nails, an industry that is first mentioned in 1314–5, and that continued until the end of the 19th century. Millstone quarrying was also carried out at Alderwasley in the 13th century.

The main occupation in the medieval period remained agriculture, and evidence of the strip fields survives in some places as ridge and furrow earthworks. Elsewhere, ploughing has removed the earthworks but the former strips are fossilised in the characteristic reversed 'S' curves of modern hedgerows and field walls.

^{3.2.4} Post-medieval and industrial period

In the north of the area in the post-medieval period lead mining, carried out in conjunction with farming, still provided the main employment. Unlike former periods, the lead mines of the post-medieval period have left distinctive traces across the landscape, Lead mining was often hampered by water which flooded mines and made seams unworkable. To counter this, a system of drainage levels was made beneath the mines into which the water could be channelled away. These 'soughs' continue to this day to drain the water from the uplands into the River Derwent and were key to Arkwright's plans to use waterpower to drive his mills at Cromford in the 18th century. The industrial period (1775-1900) had perhaps the greatest impact on the landscape of the Lower Derwent Valley. Although the Derby silk mills were in full operation at this time and the Morley Park and Alderwasley iron forges had recently been built, it is the mills established by the Arkwright, Strutt, Evans and Nightingale families which are of critical importance to the development of the Derwent Valley. This development is extensively documented elsewhere and will only be briefly summarised here

Richard Arkwright had experimented with cotton spinning in Nottingham, using horses for power. However, he recognised the potential of water power and this is what attracted him to Cromford, where a reliable source was available from the Bonsall Brook and the Cromford Sough. Work on his first innovative mill started in 1771 and was soon followed by a second mill in 1777, by Masson Mill in 1783 and by further mills in Wirksworth, Bakewell and Cressbrook. However, it is the first mill at Cromford which is rightly seen as the birthplace of the factory system. Jedediah Strutt was originally a partner of Richard Arkwright, but left him in order to set up his own business, establishing a mill in Belper from 1777 and another in Milford by 1781. It was Strutt who developed the water power of the Derwent itself, building the weirs which survive today. At Darley Abbey the Evans family, probably in partnership with Arkwright, established a cotton mill in 1782 in what was an already well-established industrial settlement.

It was not just the mill buildings which were an innovation. The mill owners also developed communities for their workers, building housing as well as schools, churches, chapels and hospitals. Much of the infrastructure of these communities survives to the present day and gives a unique character to the settlements in the lower Derwent valley. The mill owners also built country houses with designed parks for themselves, such as Willersley Castle in Cromford, and developed model farms like Dalley Farm and Crossroads Farm.

Transportation of raw materials and goods originally relied on a network of packhorse routes and early turnpike roads. The development of the mills at Cromford and elsewhere underlined the need for better communication links and gave rise to the construction of the Cromford Canal which was opened in 1794. Initially, it was intended to transport limestone from Cromford and Crich and to carry coal, but as soon as it was built it was transporting lead from Wirksworth as well as ironore. The construction of the Cromford Canal connected the Derwent Valley with the south and east; however, improved links with the developing industrial towns of the north-west were also desirable. The engineering difficulties posed by the topography of the White Peak were successfully overcome in the mid 1820s, with the construction of the Cromford and High Peak Railway, which connected the Cromford Canal with the Peak Forest Canal and so to Cheshire and Lancashire.

The development of the railways continued in the 1830s and 1840s with the significant involvement of George Stephenson. He was responsible for the construction of the North Midland Railway from Derby to Leeds which ran up the Derwent Valley. Many of the original features survive, including an impressive mile-long cutting through Belper, lined with gritstone masonry and spanned by eleven bridges. He was also involved in the development of the Birmingham and Derby Junction and other railways in the region. By the 1840s Derby had become a major railway hub and continued to develop as a railway and engineering centre, an importance that it retains today.

The quarrying and burning of limestone and the manufacture of lime for use in improving the soil had been known in Derbyshire for centuries and many farms had their own small limekilns. With the development of better communications the scale of production increased massively. By the late 18th century the quarries at Crich were transporting limestone by tramway to large limekilns at Bull Bridge adjacent to the Cromford Canal. The route of the tramway is still visible and includes a tunnel under the road at Fritchley which may be the oldest surviving railway tunnel in the world. The limekilns continued in use until the early 20th century and their remains survive. Large limestone quarries developed around Wirksworth and Cromford; some, like Dene Quarry, are still working and have a major influence on the landscape.

The textile mills continued to operate during the 19th century but the main focus of the textile industry shifted to Lancashire and Cheshire, with the result that the Derwent Valley became something of a backwater, its development constrained by topography and relative inaccessibility. Many of the mills survived into the 20th century but there have been losses. Jedediah Strutt's complex of mill buildings developed over 40 years between 1777 and 1815 charted the evolution of mill design from traditional timber and stone to the full use of iron and brick fireproofing. Sadly this complex was demolished in 1964 but the North Mill at Belper built in 1804, which embodies all these developments, still survives.

In the later 19th century Arkwright's mill complex ceased to function as a textile mill and was converted to various uses including a brewery and laundry and eventually a colour works. Considerable damage was done to the buildings during this phase until the works eventually closed in 1971. Much of Arkwright's complex at Cromford still survives although the first mill lost its upper storeys to fire in 1929 and the second mill, built in 1777, was also lost to a fire in 1890. The bow-fronted building or barracks used to house workers burned down in 1961.

The lack of significant development in the 20th century has preserved this unique industrial and social landscape and its importance was duly recognised with the inscription of the Derwent Valley Mills as a World Heritage Site in 2001.

^{3.3} The Context of the Lower Derwent Valley (DerwentWISE)

The scheme area apart from some minor modifications was established at the Stage 1 Application stage.

The DerwentWISE area is located in the centre of Derbyshire within the districts of Derbyshire Dales, Amber Valley, Erewash and Derby City. Between the districts, Apart from Erewash with only 1.7% of the scheme the area is generally equally split.

The scheme area covers 71 Km2 and rises in elevation from 45m at Derby to 358m above sea level on Middleton Moor between Cromford and Wirksworth in the north.

The area was originally selected in that the large expanses of ancient woodland and preindustrial landscape on which the Partnership wished to focus largely coincided with the designated World Heritage Site (the WHS) and its surrounding buffer zone. The WHS extends for approximately 24km (15 miles) from the Derby Silk Mill in centre of Derby to Matlock Bath in the north. The WHS buffer zone has been identified by the WHS Management Plan as the area critical to maintaining the setting of the WHS. In the north it stretches from skyline to skyline across the valley and, while in the south where the valley is less marked it is defined by Landscape Character Areas and designated sites. The boundaries of the WHS can be found in Section 2.3, page 9 and a full justification for the buffer zone can be found on page 12 of the WHS Management Plan.

In addition the boundary of DerwentWISE includes two further areas both defined by physical boundary features and seen as important from a landscape perspective.

- The hills around Riber, included for their wooded character and impressive geology and also because they form a natural watershed being the limit of the Derwent Valley on its northern extent through to Matlock.
- The Via Gellia and Bonsall limestone dales included to capture the Via Gellia woodland, Rose End Meadows and Colehill Quarries SSSI and the immediate surrounding landscape. The Via Gellia woods link directly into the Derwent Valley woodlands and form a continuity of the same wooded landscape.



Aqueduct Cottage, Cromford Canal



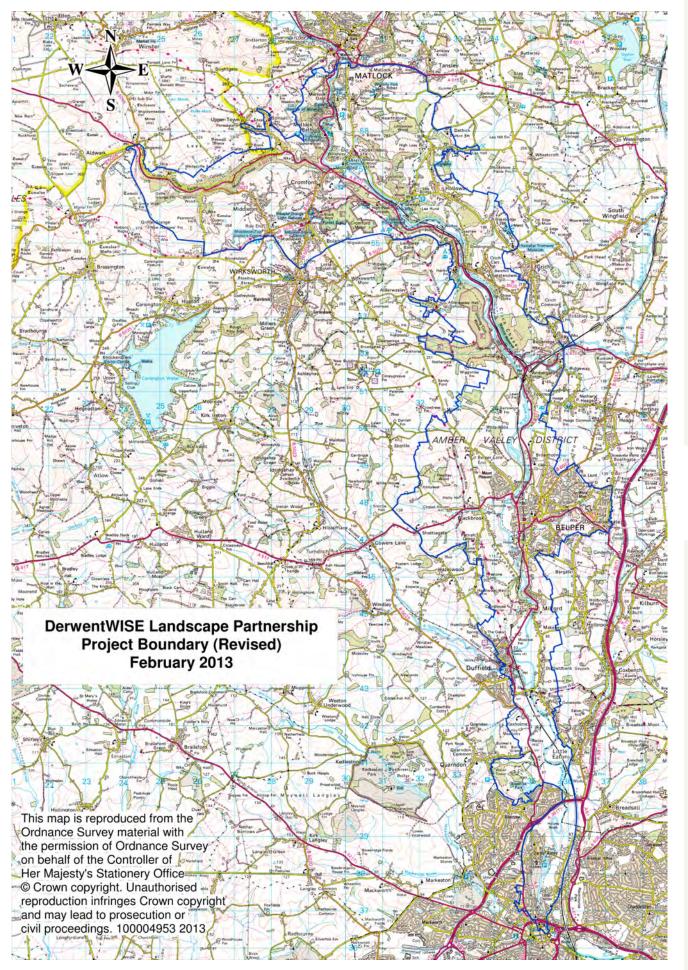
Slinter Mill Pond, Cromford

During the submission development and looking at the landscape in detail, some minor boundary changes have been made which have included.

North of Derby -Some open space extending the project area up to the A61dual carriageway.

Derwent Valley Heritage Way – a small section had been excluded south of little Eaton. Minor adjustments to the boundary has now included it.

Little Eaton Quarry Workings – small historical quarries had been excluded some important quarry workings, which have now been included.



Bullbridge – the boundary has been extended to the visual buffer provided by the former Bullbridge Cromford Canal Aqueduct.

Crich Tramway Museum- the original boundary dissected the museum. All of it has now been included. Alderwasley - part of Kennel Wood was omitted it has all now been included.

Bolehill – the boundary has been rationalised around Bolehill to incorporate field enclosures and mineral workings.

^{3.4} Current Management of Scheme Area

This section covers both cultural and natural heritage The cultural heritage of the Scheme area is managed in two ways, through the Derwent Valley Mills World Heritage Site Management Plan and through the local planning process. The DVMWHS Partnership has a project team which is involved in promoting good heritage management and the local authorities through administering the local plans, listed buildings and conservation area policies ensure that the cultural heritage is maintained. Without doubt there is the need to promote the value of the built heritage and provide training support.

The natural heritage is managed through the actions of landowners. This is largely driven by commercial factors. However, there are some landowners such as Derbyshire Wildlife Trust, Forestry Commission, Arkwright Society, National Stone Centre, Local Authorities etc where conservation is one of the main reasons for management. The actions of landowners are being influenced a little by offering agri-environment grants through the Environmental Stewardship and England Woodland Grant Scheme, but take-up in the project area has been low. The DerwentWISE project aims to change that. The amount of land in agri-environment is referenced in the landscape and natural heritage study

^{3.5} Sources of Information

Due to the high value of both the cultural heritage and

natural heritage there is a substantial amount of material available. In addition the Partnership has been fortunate in having a range of specialist experts on the Partnership Board or accessible to the Board. This has particularly included Natural England, The Environment Agency, Derbyshire County Council, the Derbyshire Wildlife Trust and English Heritage. Also see 2.1 Plan Authors, for a list of contributors.

To analyse the existing information available, make it relevant to the objectives of the landscape partnership and assist in project development additional consultancy help was obtained.

In May 2012 four key studies were commissioned by the Partnership. These included Community Engagement and Learning, Cultural Heritage, Natural Heritage and Access and Interpretation. In addition a study was commissioned on the Exploitation and Use of Historic Building Materials. These studies have been essential elements in guiding the development of the Landscape Conservation Action Plan (LCAP). The full reports are attached as Appendices. In summary these are as follows.

^{3.5.1}Community Engagement and Learning Consultation and Report

This was perhaps one of the most challenging commissions in that it had to cover areas which were very rural though to the urban within Derby City. Barker Langham who are specialist community engagement consultants were commissioned and undertook what was a most challenging commission with the Scheme area extending from the very rural through to urban audiences of the inner city.

Key responses were as follows:

The landscape

The majority of respondents were very positive about the valley's landscape and were very aware of its outstanding beauty and picturesque scenery. However a significant number commented about the cultural heritage including the mills, the Cromford Canal and transport. The vast majority commented about the area's natural environment – the hills, the woodlands and the river.

Priorities for conservation

Within such a varied and complex landscape there was no shortage of ideas for conservation activities. The top priority for conservation was local nature reserves (57%), ancient woodland (51%) followed by industrial heritage at 41%. From the discussions and debate at the focus groups and at the attendance of events, it was considered that this outcome was recognition that the Derwent Valley Mills World Heritage site already focuses on the industrial heritage. Interestingly the youth audience also saw nature reserves and the natural landscape as a priority for conservation.

Community participation.

The consultation clearly demonstrated that there was interest in being involved in projects. One of the strengths of the Scheme area was the number of community groups, the majority expressed interest on building on what they already did although there wasn't much support for forming new groups. An issue which was identified was the need to engage with local individuals who weren't members of groups and volunteering. Although 19% of respondents overall expressed an interest in volunteering only 8% of the youth audience did so. It was felt that there would be a need to promote volunteering as a training opportunity.

Barriers and increasing access.

For most people lack of time was the main barrier to increasing their use of the area while for the young, it was lack of money. Overall nothing specific which prevented access although lack of public transport and lack of connecting paths and trails was commented on.

Learning and training

Overall there was substantial interest in training and learning opportunities that might be provided. Overall most people were interested in craft skills (37%), especially drystone walling and woodland crafts followed by nature conservation skills (34%). Third most popular was heritage skills (30%). From discussions with youths the opportunity to develop creative learning activities was identified.



Focus group, Darley Park, Darley

^{3.5.2} Cultural Heritage Study

This study was undertaken by Heritage Lincolnshire based in Sleaford Lincolnshire and undertaken between May and December 2012. Although they were not one of the most local consultancies who tendered, they did in addition to considerable heritage experience have experience in managing a Heritage at Risk project, one of the key projects within the community engagement programme.

The studies aims were to provide information to inform the development and delivery of the LCAP with specific reference to identify opportunities for bringing historic assets into positive management, develop projects for the first Year of the Landscape Partnership Scheme, to advise on the development of a grant scheme and advise on the development of a Heritage at Risk project.

The study gave an overview of the history of the area and its archaeology which is outlined in section 3.2 above. It confirmed the extremely rich cultural landscape which gives the area its special landscape value and it also confirmed that most of the historic information is from the post industrial period. This is born out by the County Historic Environment Records which primarily relate to this post industrial period and reflect the significance of this period, its impact on the Derwent Valley and its status as a world heritage site.

The study did however conclude that the earlier preindustrial period was under represented and this was due to the lack of information in an area which is heavily wooded and steeply sloped. There was also the reworking of small quarry sites over time which could have resulted in the loss of remains. The scheme does therefore offer the opportunity to address the apparent gaps in the

records.

Among a range of proposals two initiatives will make a real difference to the Scheme's heritage. The first will be the provision of a LIDAR (Light Detection and Ranging) survey along the full valley length. This latest technology enables detailed topography maps to be produced through intensely vegetated areas which make ground survey work almost impossible. The Environment Agency will be making available by license agreement recent surveys they have undertaken along the full length of the Derwent Valley. Their survey is at 2m centres and although adequate on level vegetated areas, is inadequate on the steep vegetated slopes on the more northern part of the study area between Ambergate and Matlock. The scheme does therefore intend to commission a more detailed (0.5m c/s) survey for this area, which it is hoped will reveal historical information previously unrecorded.

To truly make use of this information, a community based engagement project is essential. The Heritage at Risk (HAR) intends to work with over a 100 volunteers and will audit over 1,000 historic structures. Training will be provided and the data obtained will build up a 'at risk audit' which will enable a greater understanding of the heritage of the area. The data will be recorded on the DerwentWISE web site and it will be used as a basis for future management work, training and interpretation.



Q-Pit, Lea Wood

Among many projects which were recommended within the study, ones which deserve special mention include involving the local community in a stone wall and field barn survey.



Remains of lead mine, Crich

These agricultural features are integral to the much of the areas landscape character and yet are now being lost through neglect.

A further project identified was Duffield Castle which despite once being the most important castle and seat of power in the Midlands for over 200 years, is now largely lost and unknown. Involving the local community, the project would involve on site investigation and the provision of meaningful interpretation.

^{3.5.3} Landscape and Natural Heritage Study

A Landscape and Natural Heritage Study was commissioned in May 2102 and undertaken by Kieron Huston a senior ecologist at the Derbyshire Wildlife Trust and Glynis Foster a senior landscape architect at Derbyshire County Council. They have considerable expertise and knowledge of the Scheme area both living and working within it.

Although a single report it is divided between Landscape and Natural Heritage

a) Landscape

The overall aim of the landscape report was to:

- Set the scene of the areas landscape character at the National, County and local level.
- Describe the landscape character of the area and identify key landscape character features which are in decline and in need of enhancement and / or management.

- Identify priority projects to deliver a range of initiatives within Year 1 with detailed costings (including integration with other programmes) on projects which would score across other criteria i.e. historic assets, habitats, geo- diversity etc.
- Outline summary of possible year 2 5 projects
 The Scheme area is within two very distinct national
 landscape character areas, the limestone defined White
 Peak in the north and sandstone defined Derbyshire Peak
 Fringe and Lower Derwent in the middle and south.
 These are fully described in 3.1 above and in the full
 report, see Appendices.

The report findings concluded the following:

 The extensive woodlands on steep valley sides which are not managed needed work such as thinning, coppicing, and/or removal of unfavourable species



• The semi natural grasslands were in need of restoration and re-creation with species poor grassland reseeded and management to enable them to become species rich.



 The neglected but very distinctive enclosure patterns of dry stone walls with isolated field barns and hedgerows were in need of repair and management.



 The report also identified the wealth of cultural heritage embedded in the landscape such as the medieval forest of Duffield Frith with Deer Parks at Belper and Shottle and the parks and gardens created by the wealthy 18th and 19th Century industrialists such as Sir Richard Arkwright at Willersley Castle. This landscape related culture is little known and in some cases needs managing. As far as possible with the funds available this needs to be addressed within the Scheme.



This report concluded that – 'the landscape character of the project area should provide the framework to inform and guide project work so it is appropriate for the World Heritage Site designation and the wider landscape'

Projects were identified which would contribute towards the understanding, conservation and restoration of the landscape. These were as follows:

- Advice and visits to landowners to promote the grant opportunities for dry stone walling repair, barn repairs, hedgerow restoration, woodland management, and semi natural grassland management.
- Small conservation grants to 'plug the hole' where Higher Level Stewardship and Forestry Commission grants aren't able: to manage small woodland by thinning, coppicing, and replanting. Protect, restore and manage dry stone walls, hedgerows and hedgerow trees.
- Specific joint landscape conservation projects, for example woodland clearance of unwanted invasive species such as rhododendron, combined with archaeological surveys, access improvement and opportunities for volunteers.
- To undertake a Willersley Castle grounds conservation management plan.

- Saving 'views' for example screening views of industrial development from the Riverside Meadows at Darley Abbey.
- Protecting and revealing historic 'Iconic Views' which have been lost to unmanaged vegetation.

b) Natural Heritage

The Natural Heritage part of the report built on the assessment made within the Landscape Character Report by examining the full range of habitats and species to be found in the area, reporting on whether they were in a favourable or unfavourable condition and identifying the primary causes of poor condition, with recommendations and projects proposed aimed at restoring these features as well as raising awareness, enhancing understanding and increasing knowledge of them.

The following conclusions and recommendations were made:

Conclusions

- The condition of the Sites of Special Scientific Interest (SSSI) and the Peak District Woods Special Area's of Conservation (SAC) are largely favourable or recovering, though work is still needed. There are management problems on some grassland SSSI sites.
- The majority of Local Wildlife Sites are unfavourable, with a significant number listed as in decline.
- Many ancient and secondary woodlands of high nature conservation value are unfavourable with several sites in decline. The causes are usually a combination of lack of management resulting in poor structural diversity and the presence of nonnative invasive species. The potential for woodland management and restoration is considered high.
- Many semi-natural grassland sites are suffering from poor management or lack of management.
- Lack of grazing is an issue at several larger sites such as Allestree Park and Stoney Wood as well as a few isolated small grassland sites.
- Opportunities for enhancing grassland sites are relatively frequent and several sites have been identified.

- Opportunities for woodland or grassland creation are scarce, but several have been identified and need investigating.
- Wetland sites though rarer and less visible in the landscape and are important. A better understanding of the habitat and species needs associated with these habitats is essential prior to efforts to restore and manage them.
- Heathland is now very rare, but there may be opportunities at Starkholmes, Black Rocks and Lea Wood to restore or perhaps create new heathland.
- There are gaps in our understanding of the current status and ecology of a number of protected species or assemblages of species for example, rare woodland plants and fungi, woodland moths and woodland birds, white clawed crayfish, great crested newt, common toad and reptiles.

Recommendations

In order to address the threats, concerns and gaps in knowledge highlighted in the report, the following measures were recommended:-

- a) Environmental grants for agriculture and woodland need to be promoted and advice and assistance provided to landowners considering entering into one of these initiatives.
- b) Capital funds should be made available to landowners for the improvement and restoration of fences, hedges, walls and stone barns and for habitat management and restoration.
- c) A team of volunteers led by a project officer is needed in order to assist with site management and restoration working either with landowners or independently with volunteers once landowner permission has been provided.
- d) A grazing animals project should be run by the scheme office to liaise with potential graziers and connect them to owners of unmanaged land or directly supply stock to sites that are no longer grazed.
- e) Restoration and creation of woodland, semi-natural grassland and wetland and heathland habitats especially ancient woodlands and unimproved

grasslands.

- f) Ongoing habitat and species surveys to address gaps in our knowledge and improve the accuracy of data.
- g) Raise awareness, understanding and public participation in wildlife recording and habitat management.

Based on the report's findings a range of projects were put forward which gave a balance between all the recommendations made both as Year 1 projects and continuing through to Year 5.

^{3.5.4} Access and Interpretation Study

An Access and Interpretation study was undertaken by Walk England, with support from TellTale who are interpretation specialists. The study was commissioned in May 2012 and completed early in October 2012.

a) Access

Overall the study considered that the Lower Derwent Valley was well supplied with public rights of way and paths. These run through most of the area providing access on foot to most of the key heritage sites.

Access for cyclists and horse riders is less widespread, although Derbyshire County Council and Derby City Council are aware of the need to develop more multiuser access through the valley. There are very few routes providing easy 'access for all'. The ones that do exist are not well promoted.

The study concluded that the best way to improve access in the valley was to improve access to information. Essentially there is no need to develop more routes but there is the need to help people find out about the ones that exist. In addition there is the need to create more multi-user routes.



b) Interpretation

The heritage and landscape is currently interpreted primarily through fixed interpretation boards.

The interpretation boards mainly address built heritage and vary in quality and do not present a strong clear message.

The study also looked at the Derwent Valley Mills World Heritage Site (WHS) visitor guide and website. It concluded that the visitor guide was a useful and informative publication presenting good information; it recommended updating the WHS website. Although it has some good elements it failed to convey the importance of the World Heritage Site or to inspire and attract visitors.

Overall there is a need to improve access to information and interpretation. The study recommended adopting the current and very thorough WHS Interpretation Plan expanding it to cover the wider remit and geographical area of the DerwentWISE area. It also recommends that interpretation is recognised as a vital part of the activity in the valley, and that resources are allocated to supporting professional support to the proposed team to ensure it is done to the highest standard.

c) Overall recommendations

The report recommends that a new website was created as soon as possible to promote the Lower Derwent Valley. This should amplify the current DVMWHS website, and provide a single place for the local community and visitors to find out what is happening in the valley. Because of the overlap with DewentWISE this is being put forward as a key year 1 project but with DerwentWISE clearly identifiable as a separate entity. It also recommended a small number of small-scale improvements to information provision, including a new downloadable PDF version of the visitor guide, and a new 'getting around the Lower Derwent Valley' publication to pull together the best of the many walks and rides, and to set them in a geographical context along with the key heritage sites and public transport information. This is being developed within the project programme.

A key recommendation was the appointment of an interpretation professional to lead on delivery of a strategic interpretation plan. Funding is not available for this but funds have been set aside to ensure that there is professional support available and the existing DVMWHS Interpretation Plan will be taken forward.

The report also recommended supporting the two local authorities in their aims to create more multi-user trails, and to improve 'access for all' provision. This is being followed with DerwentWISE support for the one multi user route within the valley – the Cromford Canal towpath.

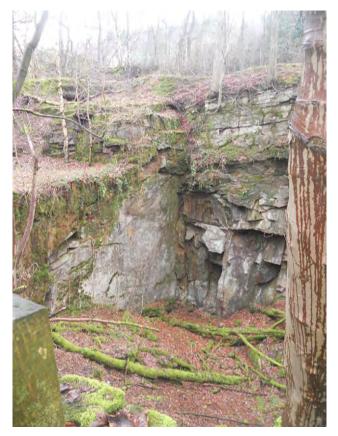
It also recommends that access audits are carried out to establish the levels of access to key sites, and to the few easy access trails, and to present that information in a user-friendly way to the public. An access audit is being considered but will be subject to funds being available. Finally the report recognised the importance of the Derwent Valley Heritage Way and suggest establishing a volunteer group to support it. Working in partnership with the Derwent Valley Trust it is proposed to undertake a full condition survey to establish necessary improvements, to develop a 'Friends' group and to publish a revised heritage way guide.



Dene Quarry viewed from Black Rocks

^{3.5.5} The Exploitation and Use of Historic Building Materials Study

A final study commissioned by the DerwentWISE partnership was – The exploitation and use of historic building materials in the Lower Derwent Valley. This study was undertaken by The National Stone Centre between May and September 2012. This study was deemed, essential as stone and especially the quarrying of stone, has played such a key part in defining the character of the landscape within the Scheme area.



A historic quarry at Black Rocks

The brief had a range of functions but primarily:

- To scope the existing information available and provide base line information.
- To increase awareness of the use of the role played by raw materials in the development of the character of the Lower Derwent Valley and to identify key geological sites which DerwentWISE projects could be based around.
- To better inform the conservation of the World Heritage Site's geological assets.
- To recognise the significance of the Lower Derwent Valley as a source of raw materials.

The study gave a history of quarrying of stone for construction materials in the Scheme area from the Bronze Age to the present day. For more information the full study is available within the Appendices.

The study identified the following areas which were considered important to raise awareness of the historic role, played by stone extraction for construction materials within the Lower Derwent Valley. These areas also formed the basis of suggested projects.

a) Investigation - There is considerable variation in the level of information which is available. Lead ore and vein mineral mining is fully researched compared with Limestone and Sandstone is poorly documented. In order to address this situation (and, by way of establishing a model applicable to other areas), the study recommended that further research be carried out in respect of the limestone and sandstone industries of the Scheme area. Two community engagement projects were proposed, one relating to limestone the other to sandstone. In the case of limestone there are still significant personal memories and archival material available. In respect of sandstone, quarry closure was largely before 1900 and so demands a far more historically orientated approach. Both areas could be undertaken through community investigation aided by professional help. The National Stone Centre has developed a project around this need.

A further area identified in the study related to the demolition of buildings which has been a major source of stone for vernacular use, notably Duffield Castle, Belper Manor, Darley Abbey and Steeple House. The possibility of tracking back some of this material from existing buildings to the original structures was considered a



Remains of quarry crane, Cromford

worthwhile community investigation project. This may be developed as part of the Duffield Castle project.

b) Interpretation – based on this study an account of the historic background of the development of quarries and their contribution they have made to the built heritage should be produced in the form of printed material, web based material and where appropriate fixed interpretation panels.

c) Project / site specific – Although limekilns are an important feature in the northern western part of the scheme area there has been very little research or survey work undertaken on them. Research was undertaken within the Peak District National Park but it didn't extend into the Scheme area. Some further investigation was recommended at the following sites:

Intake Lane Quarry, Cromford, owned by the Arkwrights on the Cromford and High Peak Railway incline. Although the quarry closed around 1900 there is still the remnants of an original timber tripod crane, as far as is known the last of hundreds previously operating in Derbyshire. The study has recommended that this important historical artefact should be included within a conservation and interpretation project.

The study identified striking remnants of quarry workings which it recommended protecting, recording and possible interpretation. These included:

At Dene Quarry, Cromford, two of the original features namely the lowermost sinking of the 1940s / 50s stone quarry and an adjacent retaining wall containing large blocks of the material originally extracted. Both should be taken into consideration as potential for investigation and possible future site interpretation. The quarry is set for closure in 10 years time so there is an opportunity to work with the owners on restoration proposals.

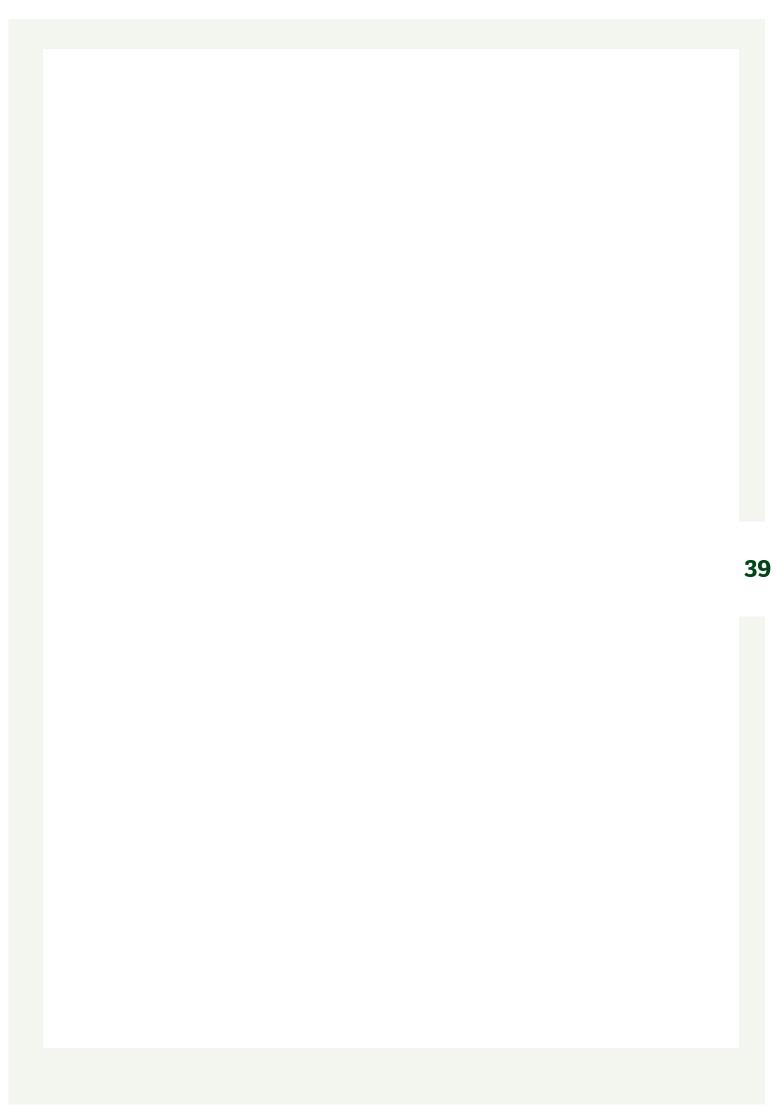
At Ible Basalt Quarry, the concrete loading chutes still remain and are typical of many previously seen in quarries but now only a few remain in the Southern Peaks and should be retained and recorded.

Of the once considerable array of buildings which once processed Hopton Wood Stone Quarry, only the buildings now used by Middle Peak Marble now remain. These should be investigated further and recordings made. Reference was also made to limekilns in relation to early sites operated within the post medieval lime-burning industry. Other than those at the National Stone Centre, there are very few readily accessible remnants of this once substantial industry, the latter are reasonably intact but need remedial work. They amount to one of the largest concentrations of Kilns within the Southern Peak District but do require remedial action as soon as possible. Around Ambergate and Bullbridge there were numerous limekilns which have now been lost but there is a remaining example which merits further investigation and recommendations for action if appropriate. At the National Stone Centre in addition to the limekilns there are associated tramway lines and the foundations of a row of at least five workers' cottages. Some remedial works (e.g. tree clearance, structural checking, stabilisation) are required to retain some features, small scale archaeological investigation is also desirable followed by interpretation and in one area the opportunity to undertake some rebuilding.

Dukes Quarry, Whatstandwell is rather, an extensive zone of quarrying some closed for many years and a small active quarry. On the closed quarries there are opportunities for recording, investigation and vegetation management, culminating in the preparation of a management plan.

At Allestree two sites deserve some investigation and possible interpretation - Allestree Park has geological and historical connotations and Kings Croft, the presumed source of stone for Darley Abbey.

The study has identified a substantial amount of project opportunities which have been put forward within the constraints of the Scheme budget.





^{4.1} Introduction

The Lower Derwent Valley is an area globally recognised for its role in the Industrial Revolution and valued by visitors and by the local communities for its scenic landscape. By geologists it is regarded as a "classic area". The landscape is perceived to be highly natural and to have changed little since the 18th Century. However, many of the natural and cultural features which define its character have experienced considerable decline and continue to be under threat. A summary of all the natural and cultural designations is found in 4.6 and a map showing them is found in the Appendices. It is intended that the DerwentWISE Landscape Partnership Scheme will address many of these issues and contribute to halting this decline.

^{4.2} The Built Heritage

As set out in the statement of outstanding universal value (explored in detail in the Derwent Valley Mills World Heritage Site Management Plan), this is the birthplace of the factory system for production (See Heritage Lincolnshire's Historic Environment Report within the Appendix 12.2.3).

From the Derby Silk Mill through to Arkwright and Strutt's factories and the model communities they built, we see innovation and integration first of processes and then the entire landscape and its occupants. This moulding of people and work into rational, progressive machine relationships spanned all aspects of life including religion. The landscape which was impacted upon by the mill owners including the quarries and woods, agricultural land and parkland was self consciously, socially and morally progressive, highly patrician and despite its economic benefits for the national economy highly exploitative of the individual.

The industrialisation of the valley is a connected process linking the mills on the river to the model farms on the valley sides and through the canal and early railways to the world markets, all watched over from the mansions and landscaped grounds of its new masters.

The valley has however a deeper past of medieval, Roman and prehistoric occupation in which the woods and pastures fostered activities such as charcoal burning and lead smelting from the valley's ancient woods and rich ore-field of the limestone plateau to the north west. This context of subsistence and seasonal rural activities is where the factory system was born.

In the Derwent Valley we can see surviving both the world which was being left behind and the new one which was emerging. To understand early industry we need see it as both something genuinely novel and transformative but also profoundly traditional and rural both in place and in the background of those who worked there. It is for this reason that the DerwentWISE landscape is so profoundly significant.

^{4.3} The Natural Heritage

^{4.3.1}Geological

Geology is the fundamental shaper of the landscape we see today. The project area embraces the south eastern edge of the White Peak, supported by the generally massive limestones of the Peak Limestone Group (Carboniferous - often previously referred to as the Dinantian) comprising the so-called Derbyshire Dome. Punctuated in places by volcanic activity, the limestones were the product of tropical seas. Horseshoed around the sides of the Dome are firstly mudstones of the Craven Group seen in the Derwent, Dove and their major tributary valleys. This in turn is capped by the great slabs of Millstone grit, giving rise to truly extensive acidic moorlands, ranging 200 miles up to the Scotland border and beyond. As continuous geological landforms, the Pennines effectively terminate in the Breadsall - Little Eaton area. These rocks were generated by extensive river and delta systems.

The Derwent Valley makes a south-north incision into the Namurian geological limestone period. Beyond the Pennine chain to the east and west lie the Pennine Coalfields of the East Midlands, Staffordshire and Lancashire (before erosion of the central spine, all part of a single depositional basin) formed in equatorial jungle swamp conditions. Even further afield to the east and west, but also just abutting the southern limits of the Study Area are major Permo-Triassic thick sedimentary basins of Cheshire, the East Midlands and Needwood. Colourful sandstones and siltstones, mainly of Triassic age, dominate and account for much of the lowland in the areas, having been a part of extensive distinct landscapes. Much more recently, in Pleistocene times, the whole terrain was radically modified by ice sheets repeatedly encroaching and retreating across the land, leaving behind scatterings of clay, sand and gravel, although rarely seen in the Study Area.

Simply put, there are two major geological formations of the project area which are the limestone which underlies the White Peak and the gritstone of the Peak Fringe and Lower Derwent.

The geology of the area is recognised by both statutory and non-statutory designations. These sites are generally where geological features are evident or have been exposed either naturally or by the activities of mining. There are four geological Sites of Special Scientific Interest (SSSI) that occur within the area or immediately adjacent; Colehill Quarries, Ambergate and Ridgeway Quarries, Middle Peak Quarry and Masson Hill. In addition there are 32 Local Geological Sites (LGS) within or immediately adjacent to the project boundary. There are also at least another five potential LGS.

In general terms these sites display key geological characteristics of the area including limestones, sandstones, mineralization, structural features such as faults and igneous features. They comprise rock outcrops and rock faces in quarries and more rarely in natural gorges as well as surface features such as lead rakes as seen at Gang Mine.

Ecologically, the Derwent Valley forms a natural link between the uplands and lowlands of England, with altitude ranging from 358m at Middleton Moor, to just 45m around the Silk Mill in the City of Derby.

4.3.2 Ecological

The diversity of topography, geology and soil type has resulted in a diverse mix of habitats and species throughout the DerwentWISE area. Much of the biodiversity interest is associated with woodlands and grasslands:

The project area encompasses one of the largest broadleaved woodland networks in the north of England. This concentration of woodland within the Derwent Valley is considered to be of national significance as it forms an interconnected corridor of habitat stretching up the Derwent Valley through the project area and beyond into the Peak District. Climatically the woodland occurs over two climatic zones and displays characteristics of both lowland and upland woods. There is a great longevity to this resource, with an estimated 700ha of woodland classified as ancient woodland.



Gritstone woodland - Lea Wood

Ancient woodland refers specifically to woodland that has existed continuously since 1600. Before those dates, planting of new woodland was uncommon, so a wood present in 1600 was likely to have developed naturally. Ancient woodland in the UK, as in the tropics, is home to rare and threatened species; more than any other UK habitat, it is an irreplaceable resource.

In the north of the project area upland ash woods dominate the limestone slopes and dales of the Via Gellia and Matlock Bath gorges. These woodlands support a distinctive array of wildlife including many nationally rare and scarce species. They support especially notable floras with rarities such as herb Paris, yellow star of Bethlehem, fly orchid, mountain melick, lily-of-the-valley, narrowleaved bittercress, and yellow bird's-nest. Trees and shrubs of interest include large-leaved lime, wild service tree, rock whitebeam, Midland hawthorn and spindle. The nationally scarce tree large-leaved lime is an important element within these woods and is more abundant here than anywhere else in the County of Derbyshire.

The Peak District is a stronghold for this type of woodland in Great Britain and over 250 ha of upland



Ash woodland - Via Gellia

ashwood (27% of the total estimated extent in Derbyshire) is found within the DerwentWISE project area. The ecological interest of 'upland ashwoods' is recognised as being of international importance and the habitat type is listed as a priority on Annex 1 of the European Union Habitats Directive and together with additional ashwoods in the dales further north forms the Peak District Dales Special Area of Conservation. Woods completely dominated by ash on limestone, such as those of the Derbyshire Dales, appear to be unique in Europe. Woods in which ash is dominant in either the tree or the shrub layer are also unusual outside Great Britain. These upland ashwoods are a significant part of the local landscape character occupying most of the limestone slopes and dales within the area.

The gritstone woods further south also support a diverse flora reflecting the gradations between neutral and acid and dry and damp woodland types. Notable plants include the sedges thin-spiked wood sedge and smoothleaved sedge as well as areas with an abundance of bluebell, wood anemone and wild garlic. Along the upper slopes and ridges of the valley the woods are more acidic and here and there scattered stands of heather can be found.

The mosaic of woodland found in the Derwent Valley is of regional, if not national interest, for its assemblage of woodland birds including 20 species that are either red or amber listed due to recent national declines including species such as lesser spotted woodpecker, tree pipit, redstart, spotted flycatcher, marsh tit, willow tit, woodcock, pied flycatcher and wood warbler. Semi-natural grasslands make a significant contribution to the biodiversity value of the landscape within the project area and its immediate surrounds. After woodlands they cover the greatest area of land of landscape and biodiversity significance. These grasslands encompass an estimated 276 ha of the priority habitat type's lowland meadow, lowland calcareous grassland and lowland dry acid grassland (definitions based on the UK Biodiversity Action Plan) as well as less floristically diverse semiimproved grasslands.

As many as 300 plant species occur within these grasslands many of which are indicative of agriculturally unimproved grassland and are typically not found in other habitats. The associated fauna is also diverse and includes many locally distinctive species some of which are rare and declining. Examples include the butterflies wall, small heath and dingy skipper, the necklace ground beetle and a number of moths such as the grass rivulet, blood vein and cinnabar.

The carboniferous limestone of the White Peak within the project area harbours one of the most significant concentrations of semi-natural grassland in the County with an estimated 250 – 260 ha sometimes occurring in relatively large and/or contiguous blocks. In general grasslands over the limestone are calcareous in nature, but depending upon the characteristic grasses and herbs may fall into either neutral or calcareous grassland types. Floristically these grasslands can be very species rich and many notable species are recorded from the area including green-winged, burnt, frog, bee, fragrant, early purple and pyramidal orchids. Field garlic, dyer's greenweed, moonwort, adder's-tongue fern and spring cinquefoil have also been recorded.

In addition the vegetation in many limestone sites has been influenced by the presence of lead mine spoil that due to its toxicity (caused by the presence of zinc and cadmium) gives rise to a unique vegetation type referred to as Calaminarian grassland. Calaminarian grassland is a priority habitat in its own right, but often extends over small areas within a mosaic of other grassland types (usually on the site of old lead workings and spoil heaps). The total known cover is estimated to be only 4 – 5ha, but additional sites may yet be found. The nationally scarce plants spring sandwort and alpine penny-cress are specifically associated with this habitat and tend to be rare elsewhere.

Within the Peak Fringe area of DerwentWISE around 235 ha of semi-natural grassland occurs, with most sites north of Milford. The geology here is dominated by gritstones, sandstones and mudstones and it is more usual to find neutral and acidic grasslands, though small areas of calcareous grassland do occur associated with outcrops of limestone such as around Crich, or flushing from base rich water or where limestone quarry spoil may have been tipped or stored.

Transitions from grassland to wetland vegetation including mires, tall herb fens and swamps also occur, but are typically rare. However, wetlands adjacent to the river Derwent or its tributaries such as at Milford Riverside meadow, Wyver Lane in Belper, Scarthin Nick Fen and Cromford Fen further north and tall herb fen vegetation in the Via Gellia along the stream and around disused mill ponds) do have interest both botanically, and for breeding and wintering birds.

Small areas of heath still survive but these are small, isolated and often unmanaged. As a consequence several are declining as scrub and bracken invade.

At Black Rocks, selected removal of conifer stands has allowed dwarf shrubs that had persisted under the plantation woodland to regenerate and today the site is the location of the valley's largest heathland restoration project. Initial results are encouraging and if successful it will significantly increase the extent of this habitat in the lower part of the valley. Where heath is still present there would still be biodiversity and landscape benefits to restoring these sites.



Heath restoration, Black Rocks

The value of many of the above features (habitats and/ or species) has been formally recognised through national and international designation. The upland ashwoods of the limestone dales and slopes around the Via Gellia and Matlock Bath are included as part of the Peak District Dales Special Area of Conservation (SAC), a priority habitat in Annex 1 of the European Union Habitats Directive. These woodlands are also designated as Sites of Special Scientific Interest. Other SSSI woodland sites include Masson Hill and Shining Cliff Woods. Most of the remaining ancient woodland and some larger secondary woodlands are designated as SAC for its caliminarian grassland interest.

There are currently 8 sites designated as Sites of Special Scientific Interest (SSSI), with another SSSI (Crich Chase) likely to be designated in 2013.

The Condition of SSSI and SAC sites

Site name	Size	Favourables	Unfavourable- recovering	Unfavourable no change	Unfavourable - destroyed	Destroyed
Rose End Meadows SSSI	48.34	20.52	21.57	2.24	2.83	1.18
Gang Mine SSSI and SAC	8.29	7.3	0.93			
Colehill Quarries SSSI	11.19	11.19				
Shining Cliff Woods SSSI	118.93	35.6	82.9			
Via Gellia Woodlands SSSI and SAC	215.58	91.7	118.7	5.6	5.3	
Matlock Woods SSSI and SAC	18.9		18.9			
Cromford Canal SSSI	13.33		13.33			
Masson Hill SSSI	75.96	52.36	19.82	3.77		
Crich Chase proposed SSSI	120	n/a	n/a	n/a	n/a	n/a

A total of 218ha (42.8%) is in a favourable condition and 276ha (54%) is recovering. Only 19.74 ha are unfavourable with no change or declining. 1.18 ha of Rose End Meadow has been destroyed.

There are also 90 Local Wildlife Sites (LWS) wholly or partly within the project area. These sites together cover c.720 ha. There are around 34 sites comprised of ancient and/or secondary woodlands and 31 sites where the main interest is flower rich grassland. The remaining 25 sites include parkland, heathland, marshes, swamps, water courses and ponds. In reality many sites are mosaics of different habitats, but usually one or two habitats will dominate. The condition of these sites is detailed as follows:

Condition	No of LWS	% of totla ha
Favourable	20	18
Unfavourable – recovering	12	23
Unfavourable – maintained	27	40
Unfavourable – declining	20	13
Unknown	10	6

^{4.4} Famous People and Stories

It is not surprising that an area which has such natural and historical richness would have such a wealth of stories. Although the area which has been labelled "the cradle of the factory system " is dominated by such powerful figures as Sir Richard Arkwright and Jedediah Strutt, the founders of the world's first industrial mills, this section is devoted to the lesser known but equally famous stories and characters that the area has produced. This is just a small eclectic mix of stories which abound within the Scheme area and give a glimpse of its fascinating social heritage. There is a real opportunity to use these stories and characters within the Access and Learning programme.

4.4.1 Matlock Bath

Although now busy and resembling a seaside town without the sea Matlock Bath was made famous by the rich and wealthy in the early 19th century when due to the Napoleonic wars travel abroad was difficult. With its dramatic landscape it became known as Little Switzerland. Walks were developed up and around the limestone crags of High Tor and Cats Tor which delighted those with a taste of adventure and sought a romantic setting.

Among the famous who visited Matlock Bath were:

Princess Victoria (later queen) in 1832

Jane Austen – who mentions Matlock Bath in Pride and Prejudice.

Lord George Byron

Charles Dickens

John Ruskin

Sir Walter Scott

Mary Shelley – who although writes of Matlock describes Matlock Bath in Frankenstein.

"We ... proceeded to Matlock, which was our next place of rest. The country in the neighbourhood of this village resembles Switzerland; but everything is on a lower scale ... We visited the wondrous cave, and the little cabinets of natural history ..."



Matlock Bath from High Tor

Matlock Bath went on to attract painters and writers and Artists Corner, opposite High Torr in Matlock was a favourite haunt of the former. Artists included a young JMW Turner and Derby's own famous painter Joseph Wright.

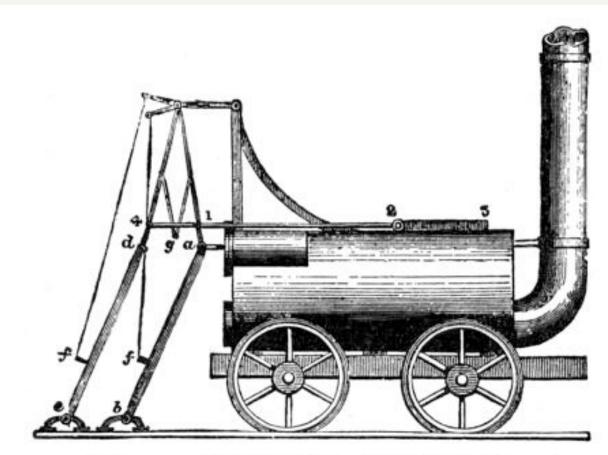
It's exclusivity didn't last, with better communications and especially use of the train by all, it was described in a guide book by J. B. Firth in 1908 as "a tripper's paradise"!

4.4.2 Alison Utley

Alison Utley (1884 - 1976) the children's book writer famous for little Grey Rabbit and Samuel Pig was born and brought up at Castle Top Farm which overlooks the Derwent valley at Cromford. Although in later life she moved away from the area but her stories were predominantly based around her memories of her Derbyshire childhood. Her classic children's adventure story "A Traveller in Time" was the set at and inspered by a neighbouring farm from her childhood in the Derwent Valley -Manor Farmhouse, Dethick. Her novel, the Country Child was set in the Derwent Valley and describes its landscape and rural culture in great detail. It is a fascinating snapshot in time of what the valley was like in the 1930s.

^{4.4.3} The Brunton Traveller

William Brunton (1777-1851), a Scottish engineer, was employed by the Butterley Company from 1808-15 (previously Benjamin Outram & Company until 1807). In 1813, the year after Richard Trevithic constructed the first steam thrashing-machine, Brunton devised a single



Brunton Traveller 1813

piston steam boiler, mounted on four wheels, with pistons pushing a pair of poles / legs behind. Brunton's Steam Horse, or Mechanical Traveller, operated successfully from Bullbridge for two years, pushing wagons back up the steep railway incline to Crich, at a top speed of 3mph. It must have been a curious sight, poling itself up the hillside, and was only removed from service when Brunton's second, larger steam horse exploded during a demonstration in Newbottle, Co. Durham, on 31st July 1815, killing thirteen spectators and injuring several others.

Constructed thirteen years before Stephenson's Rocket some claim this to be the first commercial steam powered train in the world. Currently there is not even a plaque to record or remember this mechanical first.

4.4.4 Betty Kenny

Betty Kenny (Kate Kenyon) and her Husband Luke were Charcoal burners who lived and raised 8 children in a "house" formed within the spread of a huge yew in Shining Cliff Woods in the late 1700s. The yew was reputed to have been 2000 years old. Local legend is that a bough of the tree was hollowed out to act as a cradle for the children, this is thought to have been the origin of the "rock-a-bye-baby" nursery rhyme.

Betty and Luke were favourites of the local Hurt family who owned Shining Cliff Woods at the time, and had their portrait commissioned by James Ward of the Royal Academy. This was very unusual which suggests that they were local "celebrities" at the time!



Remains of Betty Kenny yew tree

The Tree was set fire to by Vandals in the 1930s. The remnants of the tree still exist and it is still probably one

of the most visited trees in Derbyshire.

4.4.5 Samuel Slater - hero or villain

Born in Belper, Derbyshire in 1768, Samuel Slater was apprenticed at the age of fourteen and a half to Jedediah Strutt (formerly a partner with Richard Arkwright). Employed by Strutt in his mills at Milford and Belper, Slater learned the art of cotton spinning and gained expert knowledge of machinery and mill construction. In 1789, he absconded to the USA, disguised as a farm labourer. This was to evade a law banning the emigration of those who might have information useful to Britain's commercial rivals.

Not long after his arrival in Pawtucket, New England, Samuel set up a cotton mill, in partnership with Almy and Brown. (Samuel's contribution to the partnership was knowledge not cash). As a result, he became known as 'Slater the Traitor' amongst cotton trade workers of the Belper area, who feared losing their livelihood to foreign competitors.

Slater died on April 21, 1835 in Webster Massachusetts a town that he founded and had become a town three years earlier and named after his friend Senator Daniel Webster. At the time of his death, he owned thirteen mills and was worth a million dollars. His original mill, known today as Slater Mill still stands and operates as a museum dedicated to preserving the history of Samuel Slater and his contribution to American industry. It was only as recently as 2012 that a Derbyshire Country Council heritage plaque was placed on the cottgae in Belper where he had lived.

^{4.4.6} Alfred Seale Haslam – The First Refrigeration Plant

Based at the Union Foundry in Little Chester, Sir Alfred Seale Haslam in 1884 pioneered the production of the first refrigeration units using compressed ammonia, enabling the refrigerated transportation of food arouind the world. Primarily importing meat from Australia for fourteen years, he held a virtual monopoly of meat refrigeration.

A great benefactor, Haslam built houses for his workers around the recreation Green which he surrounded with ornate railings, chains and bollards. He also funded an extension to St Paul's Church (now Grade II listed), Derby Green where many of his work force worshiped. As Mayor of Derby he replaced the old William Strutt Infirmary with the Derbyshire Royal Infirmary which was opened in 1891 when he was also knighted by Queen Victoria.

4.4.7 The Nonconformist movement

With the mills the population grew at a rapid rate. Influential people such as Jedediah Strutt were nonconformist and funded chapels to enable the new workforces to attend and use as both places of worship and centres for the community. Sunday schools were set up at the chapels to educate the workforce, giving new opportunities to the families who attended. In Belper and Milford alone there were twenty chapels.

Rev. Thomas Jackson began work as a Belper nailer in 1864 and became President of the Primitive Methodist Conference. For 48 years he worked in Whitechapel and the London East End slums helping people in the area, he set up a working lads institute for the preaching of the word of God.

^{4.5} Statement of Significance as defined by local communities

The Scheme area extends from the centre of Derby through to the upland fringe of the Peak District National Park. Although the 24km long (16 mile) length of the Derwent Valley is physically linked it isn't a single community. The north and middle of the Scheme area is essentially rural in outlook based around small compact villages and towns while the south of the project area is a City Community based around Derby. In both areas the Derwent Valley is viewed differently.

There are also strong political and physical issues which contribute towards this change. The A38 dual carriageway crosses the valley forming a strong visual barrier, which largely corresponds with the boundary between the unitary authority of Derby City Council and Derbyshire County Council and Amber Valley Borough Council.

The consultation surveys undertaken asked people what they thought of the Derwent Valley Landscape. The vast majority of responses were extremely positive, with most people commenting on the area's outstanding beauty and picturesque scenery. A significant number of people mentioned the mills and the industrial heritage of the area but the natural environment was foremost in most people's minds, in particular the rolling hills, woodland and river.

Others spoke of the importance of the transport along the valley i.e. the Matlock to Derby railway line, the Cromford Canal, the cultural heritage and the area's history. Overall it was seen as a great place to live. Within Derby the River Valley is narrow and enclosed with use much more concentrated. The river here is used recreationally for rowing and canoeing and Darley Park although large in scale, is an informal park extending into the city centre.

As the DerwentWISE development phase progressed there were a substantial number of project ideas put forward – sadly too many to fully incorporate into the Scheme but it did indicate the amount of interest in finding out about and making a difference, to what for many, is a cherished landscape. However details of the projects we are unable to undertake have been retained.

Certainly there are some audiences within the local community who are more difficult to engage (as described in the Barker Langham report) and the Lower Derwent Valley landscape is not valued by them as highly. Through the range of projects the Scheme will be providing, it is hoped that these audiences will be fully engaged.

^{4.6} Summary of Designations

The summary below of the many heritage (natural and cultural) designations demonstrates just how important the Lower Derwent Valley is.

Cultural Heritage

- The Derwent Valley Mills World Heritage Site. The only world heritage site within the East Midlands.
- 19 scheduled monuments
- 7 registered Historic Parks and Gardens
- 21 Conservation Areas.
- 899 sites or features listed on the County Historic Environment Records.
- 582 Listed Buildings

Natural Heritage

- Woodland designated as a Special Area for Conservation i.e. Matlock and Via Gellia woodlands.
- Gang mine Special Area for Conservation near Wirksworth. Internationally important for its Calaminarian grassland type (lead rich grassland).
- 8 SSSIs
- 8 Local Nature Reserves
- 108 Local Nature Reserve Sites including 91 wildlife sites and 17 geological sites.
- 39 sites on the Forestry Commission Ancient Woodland Register.
- 5 Derbyshire Wildlife Trust Nature Reserves.
- 12 Habitat types identified as UK and Local Biodiversity Action Plan (BAP) priorities. Including ancient semi natural woodlands, semi natural grasslands and standing water (lake, ponds and canals)
- Biodiversity Action Plan Species which occur includewater vole, otter, dormouse and various woodland birds.



^{5.0} Risks and Opportunities



Lea Wood

^{5.1}Cultural Heritage

^{5.1.1}Pre Industrial

The overall risk to the pre-industrial heritage of the Scheme area is due to the incremental but irreversible loss of dispersed features. Preventing this happening did not lend itself to high profile site specific solutions but must rely upon a rising of appreciation and understanding within local communities.

This risk stems from several areas:

Firstly development pressures, day to day management works and natural processes affecting a resource which is poorly mapped and understood. This risk can be mitigated through a 'Heritage at Risk' project in which the character and vulnerability of these little known heritage assets (particularly on difficult valley sides and in woods) is recorded.

Through public participation a sense of understanding of the value for the remains can be disseminated through the communities and directly embedded in local development and management practice. This will be assisted through the use of a LIDAR survey to provide robust mapping of such features often in difficult survey locations.

Secondly, archaeological features such as those associated with charcoal production in ancient woodlands and prehistoric field patterns surviving as rubble banks are particularly vulnerable to environmental management works. Their locations and sensitivity needs to be identified and embedded in any management work plans. To this end the Heritage at Risk (HAR) project will directly address any collateral risks which may occur, through any environmental management measures undertaken and especially within its ancient woodlands. Lastly, damage to above ground archaeology as a result of un-arrested decay. E.g. The potential loss of the timber parts of the quarry crane beside the former Cromford and High Peak Railway line near Black Rocks

Opportunities

- A LIDAR survey of areas which have not been surveyed and are difficult to survey and access physically.
- Run a Heritage at Risk project using trained volunteers to audit archaeological features across the scheme area.
- Archaeological training courses.
- Community based learning projects to raise peoples understanding and appreciation of archaeological features.
- To interpret findings to a wider audience through guided walks and publication of a guides.
- Using DerwentWISE as a 'seed fund' to utilise third party grants to arrest decay of structures.

^{5.1.2} Post Industrial

Although the Scheme area encompasses the designated Derwent Valley Mills World Heritage Site (WHS), which has iconic world heritage assets. The aims and objectives of the Landscape Partnership Scheme is to focus on the 'non designated heritage assets'. The Scheme will therefore work alongside and complement the work of the World Heritage Site team although not specifically work on the WHS assets.

Opportunities

- To share the WHS web site
- To access the WHS volunteer base
- To share the WHS interpretation plan.

• To work with the WHS on specific shared projects such as Opening up Iconic Views, Derwent River Structures Health Check, Willersley Castle Historic Landscape.

5.1.3 Agricultural

a) Farms – Farms in the Scheme area tend to be small, numerous and distinctive features in the landscape. Many now are no longer working farms but are predominantly used for keeping recreational horses; some have had barns converted into residential accommodation. In some cases inappropriate landscape treatment such as conifer planting adds to the loss of character.

b) Boundaries - The original field patterns are largely still intact and form an essential part of the character of the existing landscape. Unfortunately however stone walls are now being lost due to lack of maintenance. In the southern part of the scheme area hedgerows replace walls as the predominant form of enclosure. Again due to lack of maintenance hedgerows have been lost or been allowed to grow out of a hedgerow form. Although not as significant a problem as is the case with walls, it is still a problem which needs addressing.

c) Barns – Stone field barns are features within the White Peak landscape of the northern part of the study area. Unfortunately they no longer have a function and are being left to decay and deteriorate due to lack of maintenance. The exception is the Bonsall area where a local organisation has been established to rescue and restore them. Unfortunately this project called the Bonsall Barns Project is limited to the Bonsall Parish area.

Opportunities

- To undertake a LIDAR survey and a 'Heritage at Risk' audit of little known heritage feature.
- To provide appropriate training to undertake maintenance of heritage assets.
- To undertake an audit of the stone walls within the Scheme area. To work with landowners and volunteers in offering stone walling training courses. To offer funds through a conservation budget or identify suitable grants i.e. HLS to make improvements.
- To undertake an audit of the stone barns within the Scheme area. To work with landowners and volunteers in offering stone walling training courses. To offer

funds through a conservation budget or identify suitable grants i.e. HLS to make improvements. To work with the Bonsall barns project or use its model for extending out into other areas.

 To wok with landowners and volunteers to offer countryside skill training in hedgerow layering and identify sites for hedgerow renewal or gapping up. To make conservation grant funds available where appropriate.

^{5.2} Natural Heritage

^{5.2.1} Lack of woodland management

During the 20th century, the use of traditional woodland management techniques declined and many woodlands in the Derwent Valley entered a period without any significant management. Today, very few of the woodlands are managed within any kind of land management scheme The lack of uptake of woodland grants is in part a reflection of the small size of some of the woodlands and their lack of commercial profitability, but equally for many landowners the woodland grant represents a management commitment that they may feel ill-equipped to deliver. The relatively small size of some of the grants may also be insufficient to attract landowners. Some of the woodlands are owned by absentee landowners or utility companies who have proved difficult to engage with. This will pose a barrier for those woods.

Lack of direct assistance for landowners in terms of implementing practical management on their sites has also been a barrier to management of some woodland sites.

Despite these issues, the conversion of some conifer plantations on ancient woodland sites back to broadleaved woodland is underway at Shining Cliff Woods and Peat Pits Woods, elsewhere in a few woodlands, coppicing has continued or been re-instated (Leashaw Wood) or other positive management has taken place (High Tor Woods). The ashwoods of the limestone within the Via Gellia and the Matlock Woods benefited from the Ravine Woodlife Project which funded some initial thinning and felling of sycamore and some beech to encourage and promote ash.



Shining Cliff Wood

^{5.2.2} Loss of species rich meadows

The decline of grasslands in Derbyshire is well documented for Peak District hay meadows and for Local Wildlife Sites and more recently for the White Peak (outside of the Peak District National Park). A key theme that emerges from these assessments is that grassland often declines because of too little management on the one hand and too intensive management on the other. Trying to maintain sympathetic traditional management practices is challenging and the main incentive for landowners has been payments available through agri-environment schemes. However, uptake of schemes has been fairly limited and to date there are only fifteen HLS agreements delivering grassland conservation within the project area .

^{5.2.3} Invasive species

The cessation of traditional management has been compounded by the widespread establishment through planting and natural regeneration of sycamore, beech and to a lesser extent sweet chestnut as well as planting of shrubs like rhododendron, snowberry and laurel. In the case of beech and sweet chestnut some trees were planted during the 1800s and are now mature trees. Beech is today fairly widespread in the north over limestone, but also occurs in Lea Wood whilst sweet chestnut is more localised and not considered to pose quite the same threat. Mature beech, sweet chestnut and sycamore can make a significant contribution to the composition of some woodlands. Their ecological value as mature trees can be notable and future objectives for woodlands need to weigh up the extent to which management should aim to reduce their cover. In light of changes in climate

and the threat of new diseases retaining a diverse range of trees is likely to be a wise strategy. However, both sycamore and beech cast a heavier shade than ash, birch and oak and can have an adverse impact on woodland field layer plants and the understorey. Rhododendron is considered to be a significant threat and is widespread within the valley. In addition other non native invasive species such as Himalayan balsam are also established in the valley. The impact of these changes on the woodlands today is manifested in the presence of dense stands of rhododendron, abundant sycamore, dense bracken beds and areas of more obviously planted woodland. The knock-on effects are lack of tree and shrub regeneration, declining field layer diversity, decline of glades and rides and woodland edge habitat and a general closing of the canopy. In addition in some places trees have poorly developed crowns through intense competition.

A further barrier to effective conservation of these sites may be the impact of new plant diseases, especially Chalara fraxinea (ash dieback) a fungus that has recently arrived in Britain and has the potential to kill 90% of our ash trees. This would be particularly devastating in the internationally important upland ashwoods in the north of the project area, where ash is the dominant tree. This could lead to the loss of entire woodlands, with consequences for water quality, flood alleviation, and other ecosystem services. Plans for the management of these woods in particular will need to take this into account, to ensure that the correct conservation management decisions are taken.

Opportunities

- To offer assistance in accessing grants.
- To offer management grant to small woodland owners not eligible for Forestry Commission Grant or provide additional financial assistance for difficult sites.
- To provide woodland management skill training.
- To work with landowners in managing and creating species rich meadows
- To involve volunteers in removing invasive plant species.
- To monitor ash dieback and secure funds for woodland management

5.3 Development

Broadly the level of risk from the impact of new development is considered to be low. This is largely as a result of the high level of designation afforded to various parts of the Scheme area.

The majority of the Scheme area is either within the Derwent Valley Mills World Heritage Site (WHS) or within its buffer zone. The World Heritage Site Management Plan provides details of the level of protection this provides, but in summary the level of new development within the WHS is likely to be very limited. Development within the Buffer Zone, which is largely undeveloped countryside, is required by the planning policies of the relevant local planning authorities to be limited to that which would not impact negatively upon the setting of the WHS.

It is fundamental to the good management of the WHS that the pioneer structures from the first heroic stage of the Industrial Revolution continue to have a largely undeveloped countryside setting. The characteristic of being a 'relict' 18th century industrial complex within a relatively unaltered landscape is one of the key attributes of the Site's Outstanding Universal Value, for which it was inscribed on the UNESCO World Heritage List. In addition to this designation the most important areas of wildlife, ecological, archaeological or geological interest are separately designated. Further details of these designations are provided in Section 4.

Development pressures are most likely to be in the following areas:

- Darley Abbey. The City Council is requiring priority be given to finding a new sustainable use for this large redundant former cotton spinning mill complex. The impact on the surrounding landscape is therefore likely to be negligible.
- Allestree Park. A new sustainable use needs to be found for Allestree Hall.
- Belper. The town centre area west of the A6 is zoned in the Amber Valley Borough Local Plan for redevelopment. An advisory Supplementary Planning Document (SPD) has recently been produced which

highlights the need to protect and the landscape setting of the historic town centre and to make the most of its riverside location.

- Strutt 'Model' farms and other farms. Historic farm complexes are under threat as changing modes of agriculture result in many farm buildings losing their use. New uses need to be found for redundant listed farm buildings.
- Hotel development. Derbyshire Dales District Council has recently refused planning permission at Cromford for a new hotel, largely because of the negative impact it would have on the Cromford Canal and its environs.
- Quarrying in Cromford and Middleton by Wirksworth. It has been possible in the past to devise ways of extending the quarries at Cromford and Middleton whilst minimising negative impacts on the neighbouring countryside and the County Council's Minerals Plan will continue to provide a policy for this approach to be maintained.
- Housing. The DerwentWISE area is largely outside the Housing Growth Zones.

Opportunities

Many of the opportunities within development are large scale and outside the scope of the DerwentWISE landscape partnership scheme. Hover there are the following opportunities:

- To support the World Heritage Partnership in their implementation of the WHS management plan.
- To monitor and be kept informed of any new uses to the historic 'model farms' and to contribute towards the debate on any new uses.
- To try and get members of the quarrying industry involved with the scheme, especially Tarmac. Where possible encourage local companies to engage with projects such as barn repairs and drystone wall repairs.

^{5.4} Tourism

The Derwent Valley Mills World Heritage Site (DVMWHS) commissioned a Tourism Strategy (2011 to 2016) which was approved by the DVMWHS Board in November 2011. The DVMWHS wishes to promote and assist the development of sustainable tourism within the area to support the local economy. This document included an analysis of current markets and the impact of tourism and also a SWOT analysis. This document has informed the developing Management Plan for 2013-18 which will be submitted to UNESCO in 2013.

Since inscription by UNESCO in 2001 the DVMWHS has been committed to sustainable tourism. It recognises that people visit the area for diverse reasons, namely:

- Visiting heritage attractions
- Walking, cycling and informal recreation
- · Shopping at shopping villages and factory shops

It is estimated that there are 500,000 visitors to the area. which contribute at least \pounds 13 million p.a. into the local economy. Research conducted in 2012 shows that the majority of visitors arrive by private car, although usage of the Derwent Valley Railway Line has also increased over the past 10 years.

The heritage attractions of Derby Silk Mill and Cromford Mills both require significant investment to become major regional attractions. The Silk Mill is within Derby City Centre and has an adequate infrastructure of carparking and city centre facilities to accommodate visitors. Cromford Mills is committed to a sustainable development which plans to attract 250,000 visitors a year (an increase of 50,000). The planned improvement to the Site will enable visitors to be accommodated. Although there is adequate space for car parking on land close to the mills this land is open land and it is likely to create a visual intrusion when viewed from the surrounding hills.

The A6 will remain the main road to and from the site, it is currently congested at peak holiday periods by traffic entering the DVMWHS and also travelling through to Matlock Bath and the Peak District.

Interpretation – linked to tourism is the provision of interpretation. The Walk England Study had concerns regarding the proliferation of interpretation styles and mixed design and content. The DVMWHS partnership now has an interpretation plan which should set a standard for improving its quality and standard.

Opportunities

- To support the Derwent Valley Community Rail
 Partnership to encourage visitors to travel by public transport.
- To improve footpaths and multi user routes to encourage sustainable forms of transport in accordance with Derbyshire County Councils Public Rights of Way Strategy.
- To work with the DVMWHS partnership in developing good and appropriate interpretation through the utilisation of their interpretation plan.

⁵⁻⁵ Lack of Knowledge – Training and Skills

Many of the special landscape features of the Scheme area were maintained historically through economic necessity. Woodlands, field boundaries, field barns, gardens and dry stone walls, for example, all had their purpose and the rural economy provided the skills within the local community through which they were maintained. As the economy became industrialised and the economic usefulness of local production from the land declined, then so did the availability of skills required to maintain these features. The risk is that these skills are lost so that the value of these assets cannot be restored and maintained for future generations. The proposed learning programme will address this risk to ensure a legacy of skills for conservation.

For example, the steep sided woodlands of the Derwent Valley were once busy with woodsmen coppicing the hazel and ash for use locally in the economy. Due to the woods' inaccessibility they were mostly unsuited to mechanised forestry and so have not been maintained as commercial woodlands. Neither has alternative economic use been found for the land and so they have remained very rich in wildlife and archaeological relics. The woods have not been appreciated as assets for many decades and so they have become unmanaged and degraded, and the skills needed to manage them appropriately have been lost.

Recently the biodiversity and landscape value of the natural and built heritage of the Scheme area have been

recognised by conservation professionals as described elsewhere in the LCAP. The amenity, landscape and biodiversity value of the area is at risk if the necessary maintenance activities are not reintroduced, and skills learnt in the community and voluntary sector to support the management of the heritage, both built and natural, in order to support the conservation of high value sites. This is especially important in places where the land managers themselves do not have the motivation or skills to maintain the land and built environment.

The woodland owners' network event held in autumn 2012, as part of the LCAP consultation, showed that there are a number of new owners of woodlands and former agricultural land, whose personal background is not attached to the land. They are eager to conserve the natural assets that they are guardians of, but do not yet have the understanding and land management skills to do this effectively. There is a risk that if they do not learn the necessary skills they will damage the heritage through inappropriate management. Also, if they do not learn to work co-operatively there is a risk that new land owners will not get the necessary returns from land management - rewards in financial, conservation or wellbeing terms - to encourage them to continue to maintain the land into the future. Some, for example, are aware of the revival in woodland crafts but have little understanding yet of the ways in which they can both become part of a new, high value, rural, land based economy and at the same time conserve the natural assets of their land. The training programme will respond to this risk by bringing together landowners, volunteers and conservationist to establish shared interests and rediscover traditional natural and construction crafts, in the context of 21st century needs for sustainable lifestyles. There is a risk that those skills that require certification for insurance purposes and quality control are absent, or are unaffordable, for example chainsaw and brush cutter use. The training programme will address this and so equip people with the skills to work professionally. There is a risk that those people who volunteer as part of the Heritage at risk project will become disengaged after the initial survey is undertaken if they have insufficient skills to contribute further. The training programme will specifically address the on going training needs of archaeology investigation,

recording and conservation beyond the Heritage at risk project.

There is a specific risk around lack of a skilled workforce for the repair of dry stone walls and traditionally built mortared stone buildings that are such an important part of the White Peak limestone landscape and heritage of the northern part of the Scheme area, as well as the Peak Fringe and Lower Derwent gritstone area in the centre and south of the Scheme area. The density of walls that were built over centuries and the difficulty of the terrain over which they were built requires a high level of skill to affect their repair. There is a risk that there are insufficient skilled craftspeople to do this work and that the repairs will be left undone, or worse undertaken using non traditional and inappropriate methods. This risk will be addressed by extending the resources of accredited dry stone walling training schemes. There is a risk that builders and volunteers involved in the repair of other built structures will have insufficient skills to do conservation building work. This will be addressed by adding traditional building skills to the portfolio of the local building trades people engaged with the scheme, and by developing skills demonstration sites as part of the training programme.

The public has a desire to access more remote parts of the Scheme area, as is clearly apparent in the community consultation research. The level of interest and knowledge apparent was quite superficial and there is a risk that the public do not understand the integrity of the landscape and the interrelationships between conservation and management. This lack of understanding puts the conservation of the Scheme area at risk as public access increases, with a risk of negative responses to conservation activity and of damage to the heritage, either deliberate or unintentional. For example coppicing can be perceived as a damaging activity that meets with opposition by some and for others justifies wanton felling of live trees in other minds. The access, learning and training programmes will reduce these risks by contributing to the positive outcomes of increasing public access. They will reduce disengagement and encourage involvement at all levels, from casual awareness raising at events, to family learning, have-a-go and demonstration activities, work placements and volunteering and specialist

training to capture the interests of a wide variety of people. These activities will reduce the risk of the scheme having a limited legacy by continued disregard and through lack of public understanding and buy in. There is a risk of the public and membership voluntary organisations viewing landscape conservation as a matter only for active involvement by conservation professionals and land owners. This risk will be reduced by involving people in as many different ways as possible, including new and often overlooked audiences, and through the publicity attached to learning and training schemes that engage a wide variety of people with different demographics, ages and life experiences. A truly inclusive approach to learning and skills activity will have impacts both for those involved and those in the wider community who are made aware of this involvement. There is a risk that the heritage of the scheme area will not be considered relevant to people from the urban areas in the south. The learning and training programme addresses this by being made available projects where people live and by initially drawing urban dwellers out to the urban fringe, that is easily accessible to them, as a precursor to activity in the heart of the scheme area.

There is also there is a risk that future generations will not have the skills and understanding to access the heritage of the scheme area and that they will not consider themselves custodians of it in to the future. The education programme and forest school leader training programme will address this.

The development phase has identified those features that are most at risk and the access, learning and training programmes will respond to these whilst remaining sufficiently flexible to respond to other needs as they arise. This will reduce the risk of the landscape remaining neglected during the life of the scheme and into its legacy.

Opportunities

- To provide traditional skills training such as woodland management, hedge layering and coppicing.
- To bring together landowners and volunteers to manage the landscape.
- To engage children in an appreciation of the

environment through the forest schools programme

- To provide cultural conservation skill training, such as stone walling, the use of lime mortar etc.
- To influence an appreciation of the environment through education programmes.

^{5.6} Partnership Risks

The Partners are all committed to the successful delivery of the DerwentWISE scheme. They are currently primarily comprised of public bodies, national organisations and independent trusts. Although currently there are no apparent risks to the public body partners, we are in a time of change, with staff reductions or the amalgamation of bodies a possibility during the next five years. This could lead to a loss of membership and most importantly loss of knowledge and support funding. Among the 14 Partners two are small charitable trusts and are financially vulnerable in the current economic climate. They both cover specialist areas which are important to the scheme, i.e. geology and arts based community engagement. One of the trusts, the National Stone Centre(NSC) is now especially vulnerable. In 2012 all the full time staff were made redundant and it is now run by volunteers. We addressed this within the Year 1 programme by Derbyshire Wildlife Trust taking the lead on the majority of former NSC led projects. The partnership team will need to develop a fall back strategy during Year 1 in case small partners organisations with delivery commitments cease trading.

The other issue relates to a predominance of public bodies. This is not technically a risk more a weakness. It needs to be a Partnership priority during Year 1 to engage at least one partner whose background is from the private sector and preferably a company who has an interest in the Lower Derwent Valley such as Tarmac or Rolls Royce.

5.7 Staffing Risks

This is not considered a risk in the first few years of the project but it could be a risk in the last year (year 5) where staff may wish to seek more permanent contracts. Recruiting staff for a very short period may be difficult and there would be a loss of project continuity. The Partnership needs to consider incentives such as a meaningful contract completion bonus, line management support and assisting with securing a similar position or career advancement within one of the Partnership bodies upon completion of the contract.

^{5.8} Community Participation

To be successful the project depends upon volunteering and engagement by the many community groups and landowners within the Scheme area.

With the development phase we have undertaken a substantial amount of community engagement and the feed back has been extremely positive. Although the ground work for developing interest has been completed this is still an area which mustn't be taken for granted. There will be press releases a media launch and most importantly a launch event to ensure the Scheme gets maximum publicity.

A further risk may be volunteer groups sizes, especially within some popular programmes. Volunteer group sizes will need to be monitored carefully.

^{5.9} Funding

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In the past 18 months match funding has increasingly become a risk, funding is no longer as readily available as was the case when the Stage 1 application was submitted. Securing finding during the current period of austerity, is now difficult whether it is from the public or private sectors.

A key funding risk which was not present when the Stage 1 application was submitted relates to the Common Agricultural Policy. The English Woodland Grant Scheme (EWGS), administered by the Forestry Commission and the Environmental Stewardship Scheme (HLS) administered by Natural England both come from the Rural Development Programme England (RDPE) which is funding by the European Union(EU). This is contributed to by the UK government. This is one of the policies which is reviewed every 6-7yrs and is happening this year. Currently we don't have a date for when an agreement may be reached, or if we will have EWGS/ HLS after the review. A primary objective of our project relates to habitat and woodland management based on grant. If we loose this money, then it could reduce the number of woodland and environmental management schemes, we will be able to offer. However it is likely that a new Environmental Land Management Scheme will be available, encompassing elements of Environmental Stewardship and the England Woodland Grant Scheme. It has not been possible to secure all the match funding during the development stage, although what is necessary for Year 1 has been secured. We are however confident that the range of expertise within the Partnership will enable us to secure the target match funding required and will compensate for the difficult period we are now in. See Appendix 12.12.4 Section 7 for a spread sheet showing confirmed match funding to date.

^{5.10} Climate Change

Climate change will have an impact on the landscape in future years although the precise scale of the impact is uncertain.

The United Kingdom's Climate Change Impact Programme (UK CIP) has looked at general trends and their likely impact on the East Midlands. The following impacts were identified:

- More flooding along rivers.
- · Changes to crop production
- Higher summer temperatures
- An increase in the number of tourists to the region.

There are also potential serious threats to biodiversity with climate change causing species loss and migration. Vulnerable structures are likely to suffer from weather extremes especially flooding.

Climate change is also covered in Section 3 Understanding Your Landscape – Future Influences (3.1.3 a) and in Section 6 Aims and Objectives (6.4).

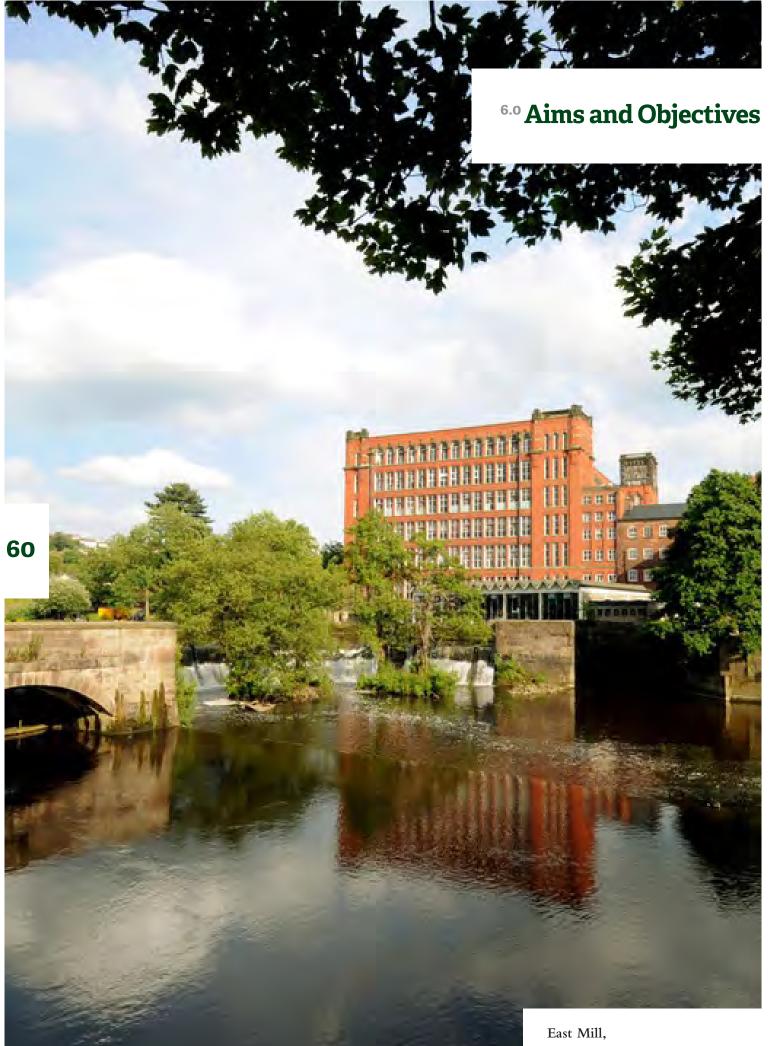
Two specific mentions in Section 3 are the Environment Agency's (EA) 'Derwent Valley Landscape Management Project' to reduce flood risk through woodland management and planting and the Environment Agency's 'Our City, Our River' project, a flood relief initiative

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being developed within Derby.

Opportunities

- To work with the EA on their Derwent Land Management Project.
- To keep aware of proposed developments within the EA flood relief project within Derby which may unlock opportunities for landscape enhancement.
- To ensure historical water bodies such as the Cromford Canal and Slinter Mill pond remain in water.
- To maintain and create wetlands.
- To establish interlinked ecological networks so species can migrate
- The need to reduce fossil fuels has led to an increased use of wood as a fuel. The Forestry Commission has recognised the potential use if wood as a fuel in its Woodfuel Strategy 5. This could lead to increased woodland management for fuel.
- To investigate any damage from flooding on weirs which are key structures which contribute towards the riverside cultural heritage.



Belper

This section explains how we will look after the heritage and address the identified needs of the communities. The section commences by revisiting the original, vision, aims and objectives of the Lower Derwent Valley Landscape Partnership and then links these objectives to how the project has developed within the development phase.

^{6.1} Development Phase

6.1.1 Vision

The vision for the Lower Derwent Valley – DerwentWISE Landscape Partnership was developed and set out in the Phase 1 application and reflects the needs of what is a most unique and special landscape.

The vision is:

A future where the landscape of the Lower Derwent Valley is valued as much for its natural and cultural heritage as for its beauty, and where local people have the knowledge and skills to look after it for future generations to enjoy.

We want to safeguard and restore the fabric of this unique and special landscape, and make it resilient to climate change by ensuring that:

- Important habitats are extended, linked and under positive management, geological sites are sympathetically maintained, and archaeological features are properly recorded and safeguarded.
- The character of the landscape is conserved and enhanced, including characteristic features such as field walls, buildings, hedgerows and ancient trees.
- There is sustainable public access to heritage sites and features, and people can easily find out about them.
- People in both rural and urban communities feel proud of their landscape, understand why it is important and the pressures it is under, and feel equipped to engage with its long term care.

^{6.1.2} Aims and Objectives

Within the Phase 1 Application the following Aims and Objectives were identified and submitted within the application – they are as follows:

a) Aims

- The Landscape Partnership aims to safeguard and restore the character of this unique landscape by:
- Restoring, linking and extending habitats and geological sites and ensuring that archaeological features are properly recorded and safeguarded;
- Ensuring that the character of the wider landscape is conserved and enhanced, including features such as walls, hedgerows and ancient trees.
- Providing sustainable access to, and interpretation of, heritage sites and features.
- Promoting public engagement and inclusion by ensuring that both rural and urban communities can feel proud of their landscape, understand why it is important and feel equipped to engage with its long term care.

We will achieve these objectives by working with communities to:

- Engage with owners of priority sites and features, providing advice, training and access to funding, enabling them to deliver physical improvements and increase access.
- Carry out a Heritage at Risk audit of built heritage features to inform their conservation and provide knowledge and skills to volunteers.
- Deliver a programme of participatory arts activities to increase public involvement and understanding of the landscape, 'twinning' rural and urban communities.
- Deliver a programme of community engagement activities, and improved access to information and interpretation, taking the opportunity to work with two new visitor centres currently in development.
- Deliver a programme of education activities with schools 'twinning' rural and urban areas, and develop a Forest Schools programme.
- Provide training in heritage skills, from informal activities to accredited courses, centred on the new Eco Centre near Wirksworth.

b) Objectives

- A- Conserving or Restoring
 - A1- An integrated approach to natural and cultural heritage and landscape character conservation.
 - A2- The delivery of significant, long lasting improvements to the condition (and extent where appropriate) of priority sites and features, and hence to the landscape character.
 - A3- Long term improvements to the landscape brought about through better understanding, engagement of land managers and communities, and land use policies and activities based on good information.
- B- Increasing Community Participation
 - B-1 A celebration of the beauty, wildlife and fascinating history of the Lower Derwent Valley.
 - B-2 An increased public understanding of the value of the landscape, and of the need for it to be conserved and restored.
 - B-3 Increased engagement and capacity among landowners and communities to care for the landscape in the long term.
- C- Increasing Access and Learning:
 - C-1 Improved physical access to the area and its heritage, particularly in ways which discourage car use and promote physical activity.
 - C-3 Improved access to information about the area and its heritage.
 - C-4 Increased opportunities for access as part of formal education (through schools), fostering the conservationists of the future.
 - C-5 Opportunities for people in areas subject to deprivation, and in traditionally hard to reach groups, to engage with all elements of the scheme.
- D- Increasing training in local heritage skills.D-1 The perpetuation of traditional crafts necessary

for the maintenance of the landscape.

- D-2 Opportunities for local people to develop skills to enable them to engage with their local landscape and its conservation, and benefit from personal development and improved employment prospects.
- D-3 Increased knowledge.

6.2 Delivery Phase

Although the delivery phase has kept to the overall aims and objectives of the original submission, as would be expected, there have been refinements to the projects initially submitted. This essentially has been due to the following:

Study and investigations - The studies which were commissioned have resulted in a far greater understanding of the types of projects needed and what could realistically be achieved within the budgets available.

Community consultation – A very thorough community consultation process was undertaken which hadn't been undertaken at the Phase 1 Stage. This identified in more detail the areas the community groups would wish to be involved with and took into account community identified projects,

New Partners – some projects have developed around new members who have joined the Partnership since the Phase 1 submission.

Project Development – finally and most importantly detailed projects have been developed utilising general funds, such as, the general project grant funds identified for natural heritage, cultural heritage and access and learning projects. Funds will still available to award grants to suitable applicants but not at the budget level previously identified. This has been an essential part of the process to ensure that projects were developed and ready to start in Year 1 and identified for taking forward in Years 2-5.

Overall we believe we now have a robust and diverse

programme which is achievable, justifiable, has taken into account risks and opportunities and is ready to be delivered.

6.2.1 Conservation

a) How we will conserve each of the different types of heritage?

Our scheme development has identified the following areas of work:

Landscape scale heritage.

Through the landscape study undertaken (Landscape Character and Natural Heritage – Derbyshire Wildlife Trust. 2012), the following areas of work have been identified:

- To visit landowners to promote the grant opportunities for dry stone walling repair, barn repairs, hedgerow restoration, woodland management, and semi natural grassland management.
- Small conservation grants to 'plug the hole' where Higher Level Stewardship and Forestry Commission grant isn't available to; manage small woodland by thinning, coppicing, and replanting. Protect, restore and manage dry stone walls, hedgerows and hedgerow trees.
- Specific joint landscape conservation projects, for example woodland clearance of unwanted invasive species such as rhododendron, combined with archaeological surveys, access improvement and opportunities for volunteers.
- To conserve and restore heritage landscapes which are being lost due to poor management i.e. Willersley Castle.
- To save views which are being lost due to industrial development i.e. Riverside Meadows at Darley Abbey
- To protect and reveal iconic cultural heritage views which have been lost due to lack of vegetation management.

From this information we have developed a programme of work identified below:

b) Resolving conflicts between different types

of heritage

We are aware that the different types of heritage can be in conflict (cultural v natural), however the scheme has been developed within a multidisciplinary partnership approach and we believe that rather than create conflict, our approach has opened up opportunities.

Examples of where different heritage interests are working together are:

Lea Wood - currently a heritage study is being undertaken. This is limited due to vegetation and lack of survey information. Lighting up the Flowers is a project which is aimed at woodland management to allow a herbaceous flora to develop. It will in particular focus on rhododendron removal. The rhododendron is a barrier to archaeological survey work; its removal will assist in this survey.

Slinter Mill Pond – This project will involve structural survey work of the historic water management systems and an ecological appraisal. The main mill pond fronting the mill has silted up badly and is now likely to be declining form an ecological perspective. Sensitive dredging will enhance its ecological value and restore its heritage value.

Iconic Views – This project will involve sensitive management of vegetation to open up historical views. The first Iconic View project in year 1 – Scarthin Rock will involve scrub vegetation clearance to open up an historic view of Cromford Mill and at the same time open up the opportunity for the creation of a much more diverse ground flora.

Finally the scheme will be managed by a multidisciplinary team i.e. a community engagement officer (cultural heritage) and a community engagement officer (natural heritage), together with a multidisciplinary board who will approve each years work plan.

c) Meeting Conservation Standards

The project team will include specialist heritage officers (natural and cultural) and will have access to board members and their organisational support. I.e. Natural England, English Heritage, the Environment Agency, the Forestry Commission and Derbyshire County Council. The management board itself, extends across a range of professional disciplines including: ecology, built heritage, conservation, archaeology, geology, forestry, landscape architecture and forestry. The overall management of the project will remain with the governance of the board, who will ensure that projects delivered meet all the required standards.

Health and Safety Standards will be set by the Scheme accountable body, Derbyshire Wildlife Trust, who have extensive experience in managing regular volunteer programmes.

Any consultants or contractors appointed will be to specialist engagement contracts. These will use either current contracts developed by the Wildlife Trust itself or sourced through partner organisations using relevant professional body contracts.

d) Who will do the work?

The work will be carried out through a number of sources, this will include:

Management by the project manager and the heritage and cultural officers within the project team. Volunteers – nearly all the work will involve volunteers. These will be sourced through the following organisations: Derbyshire Wildlife Trust The Arkwright Society Amber Valley CVS Derbyshire Dales CVS The National Trust The National Stone Centre The Derwent Valley Mills World Heritage Site Organisations and Community Groups Landowners.

Specialist consultants will be used where necessary and is likely to include the following areas: - architecture, landscape architecture, ecology, arboriculture, tree surgery, archaeology, surveying.

Contractors will be used for certain operations which are too specialist or onerous for volunteers i.e. large tree felling, construction (towpath construction and some heritage building work), dredging specialists (Slinter Mill Pond).

e) Conservation projects

The Scheme's Conserving or Restoring Programme projects are identified below together with the objectives they address. A full programme of projects is covered in Section 7.

Project	Details	Objectives
Landscape		
Willersley Castle	Restoration of a neglected historic landscape	A2, A3
Saving the view	Hedge and tree planting to restore ancient hedgerow line and screen views of development	A2, A3
Opening up iconic views	Scrub and tree clearance to open up historic views lost due to poor management	A2, A3
Natural heritage		
The grazing comes to town initiative	To increase biodiversity and natural meadows through improved grassland management	A2, A3
Allestree park meadows	Allestree park meadows The creation of species rich meadows at Allestree park	
Landscape and ecological management – Crich Tramway Museum	Management and improvement of a local landmark utilising volunteers and local college	A1, A3

Project	Details	Objectives
Landscape conservation	The provision of advice, assistance and grants to landowners	A1, A2, A3
programme	to improvement the management of land	
Belper Parks	The creation of a flower rich meadow	A2, A3
Ford Lane	Restoration of derelict site on the edge of the River Derwent	
Cultural Heritage		
Duffield Castle	Community engagement, survey and interpretation	A2, B2
Aqueduct Cottage	Survey and restoration of derelict listed canal cottage	A2, B2
Quarry site work	Practical work to maintain historic quarry features	A3, B2
Field barns - survey and	A survey of field barns around the Middleton and Via Gellia	A2, A3, B3
restoration	areas leading to the restoration of a selected barn and training	
Drystone walling – survey	A survey of stone walls around the Middleton and Via Gellia	A2, A3, B3
and restoration	areas leading to the restoration of walls and stone wall training	
High Peak Junction – wheel	Survey and conservation work on historic features	A2, B2
pit, engine house and crane		
Derwent River historic	Survey of two historic ' at risk' structures by volunteers helped	A2, B2
structures health check	by professionals	
Slinter Mill pond restoration	Survey and restoration of historic mill pond	A1, A2, B2
Cultural Heritage project grant	A grant to support 'at risk' cultural heritage projects managed	A2, A3
	by project team	

6.2.2 Participation, Training and Skills

a) Audiences to be targeted

The scheme intends to involve an extremely wide audience, ranging from the residents of small local villages and Derby City to tourists who visit the valley, from around the world. It will also involve both the young and the elderly. While we do not wish to be too specific, the following groups will be targeted:

The rural communities

The consultation undertaken identified how important local sites, both natural and cultural were to the rural communities within the Derwent Valley. There was a real sense of ownership and an appetite for getting involved further. We intend to maintain and cultivate this interest with projects which identify with those communities.

Landowners and woodland owners

Engaging the landowners is essential in a landscape partnership scheme. Two key partners are Natural England and the Forestry Commission, who administer land based grants. The DerwentWISE team will work with both organisations identifying landowners who can be worked with to deliver conservation or restoration projects. In addition, we have the National Farmers Union, who are a supporting partner and have helped organise farmers and woodland owner, consultation events and are committed to support the scheme

Young people

Five schools were interviewed along with the pupils at Highfields School Matlock and Derby Young Farmers. There was a mixed response with respondents wishing to undertake taster events with some wishing to gain a qualification. Projects which offer a wide range of opportunities and a flexible approach will be needed.

People not part of the local community

The consultation did identify people who are not members of organisations and groups and if communication was only made through organisations, could be missed out. Activity publicity will need to be made, to ensure that these members of the community are aware of the opportunities being offered. This will be through posters and the local press and media.

Urban communities

Within the urban communities interviewed (the Arboretum Project and the West Derby West Indian Community Association) the wider valley was not identified as important as seen by the rural communities. Activities will be promoted within these groups both as far as offering training and volunteering opportunities. Activities such as the Derwent Explorers project where the young from the city will be offered, opportunities for a residential weekend in the woods (Shining Cliff Wood) will especially be valuable and be promoted.

The participatory arts projects will focus on urban hard to reach groups. For example - the walled garden, well dressing in year 1 and Rangoli workshops in Darley Abbey and Darley Park.

Projects and training programmes will be run close to these communities as taster events as the first step helping them to get involved in the wide landscape.

The school consultation also demonstrated that there was interest in urban and rural schools partnering, which will be taken forward within the education and learning projects.

b) How more people will get involved?

The consultation process engaged with a substantial number of interest groups and organisations who indicated a real appetite to be involved. It will be essential to build on these groups and utilise the links they have through the creation of a DerwentWISE network. Already the groundwork has been carried out for this, with the scheme publicity that has taken place, the meetings held with a wide spread of organisations and the establishment of a contact data base.

There will be projects which will target a wide range of groups; this is especially the case as far as the participatory arts community engagement projects are concerned. This programme aims to involve as wide a spread of groups as possible. For example the Underwater Project will work with Sure Start family groups, the Sediment Project will work with adults with mental health issues and the Understorey Story Project, will work with families with young children. The education programme run by Derbyshire Wildlife Trust will also involve a wide range of groups.

Finally projects have been developed which cover a wide range of interests, across natural heritage, cultural heritage, geology, archaeology, history art and access. The projects developed will above all, be fun and will allow people to interact and enjoy themselves.

c) Opportunities for volunteering

As mentioned in 6.2.1.d), we have a Partnership which includes a significant number of volunteer facilitators – including the Derbyshire Wildlife Trust, the Arkwright Society, Amber Valley CVS, Derbyshire Dales CVS, the National Stone Centre and the Derwent Valley Mills World Heritage Site.

We will also be working with significant organisations such as the National Trust, the Crich Tramway Museum and the Friends of the Cromford Canal, all of whom have a significant volunteer base and organising capacity. Most importantly we have forged links with a wide spread of community groups, such as the Friends of Darley Open Space, the Derwent Valley Partnership, the Friends of Cromford Canal, Bullbridge and Area Civic Society, the Lea Wood Heritage Community Group, the Wirksworth Civic Society for example.

A further strength of our scheme is the wide spread of volunteer based activities, from 'hands on', physical work such as rhododendron clearance and heritage investigation through the Heritage at Risk Project, to less active projects such as historical research for guide books, leaflets and interpretation panels. For those wishing for something different, there will be landscape photography, well dressing, mosaic making and quarry investigation. Landowners who are working with will be encouraged to work with volunteers and use them on real projects, such as woodland management or stone wall repairs.

Finally, mention must be made of the Arkwright Society's Gateway project. This is a £4.2m project to restore Building 17 within Cromford Mill complex, it will create the Derwent Valley Mills World Heritage Site 'Northern Gateway Centre'. The Gateway Centre will provide information, visitor orientation and interpretation about Cromford Mills and the 15 mile long World Heritage Site to help visitors appreciate its importance and encourage them to visit the other 16 heritage sites along the valley. Derbyshire Wildlife Trust hopes to be based at Building 17 from late 2014 onwards and the Arkwright Society are to appoint both an education and a volunteer co- coordinator. The DerwentWISE project team will work closely both of them on educational and volunteer projects.

d) How people can get involved in the decision making

The development phase has created a data base of individuals, groups and volunteers from within the rural communities through to urban communities. When the project team is established key individuals and representatives and groups will be invited to attend a DerwentWISE forum. This will consist of two meetings per year at alternating venues around the valley. i.e. Cromford, Belper and Darley Park. This forum will offer a direct link to the project team and the Partnership Board. It will also offer the opportunity for different interest groups to communicate.

Regular updates on what is happening will also be made on the DerwentWISE web site, with more instant feed back invited through Twitter and Face Book.

e) Training and skill opportunities to maintain the landscape

The provision of training has always been strength of the DerwentWISE Scheme with Derbyshire County Council's newly developed Eco Centre being located within the Scheme area and its manager being a founder member of the Partnership. The centre focuses on countryside and heritage skill training, areas which are fundamental to maintaining a sustainable landscape. In addition the National Stone Centre is located within the Scheme area, offering stone related courses such as stone walling.

Overall the training courses will be primarily run by the Eco Centre and will consist of a series of bespoke courses, which will be delivered along the entire length of the valley from Derby through to Matlock.

The Get Skilled DerwentWISE project will offer a range of courses and activities from demonstration to 'have a go' events, through to accredited City and Guild level courses, which will contribute towards employment enhancing qualifications.

f) Training projects

The Scheme's training projects are identified below together with the objectives they address. A full programme of projects is covered in Section 7.

Project	Details	Objectives
Get skilled	Heritage skill training	D1, D2, D3
DerwentWISE		
Wildlife	Wildlife recording	B2, D3
Guardians	and youth rangers	
Learning my	Linking schools to	
Landscapes	their local landscapes	
Derwent	Providing	B2, C1, C4,
Explorers	opportunities for	C5
	young people to have	
	residential visits in	
	valley woodlands	
Working with	Engaging people in	D1, D2, D3
Stone	practical stone work	
Forest schools	To train Forest school	C4, B2
	leaders	

6.2.3 Access and Learning

a) How will access be improved without damaging the heritage?

The majority of the scheme lies within the Derwent Valley World Heritage Site (WHS) and its buffer strip. What happens within the WHS is carefully controlled by the planning authorities.

The modest physical access work we will be doing will be in partnership with officers from the County Council, in collaboration with the WHS team and partners such as Natural England. This will include towpath improvements, interpretation panels and likely eventually to include small works such as stile repairs.

b) Where physical access is inappropriate how will alternative access be provided?

The Walk England study came to the conclusion that there was a good network of pedestrian routes but access to information was poor. The scheme will be addressing this through a range of projects. I.e. Getting Around the Lower Derwent Valley Guide; Bringing the World Heritage Site (WHS) to life – a downloadable App and downloadable audio guides; Heritage Way Guide – an improved and updated guide book.

The Walk England study did identify the need for creating better multi-user routes for horse riders and cyclists and to create improved access for disabled users. DerwentWISE will be working with Derbyshire County Council to improve the Cromford Canal Towpath providing better access for walkers, cyclists and the disabled. The Getting around the Lower Derwent Valley Guide, will provide information on the best routes for all users and show where routes link into public transport. Some horse riding routes do exist and these will also be included within the guide.

The scale and cost of constructing a Derwent Valley cycling route, which undoubtedly is needed, would be substantial and outside the scope of the Scheme. There may however be opportunities to provide short links which could make a difference. During the course of the Scheme, if opportunities arise, then the access programme budget may be used as 'seed corn funding' to secure additional funds.

c) Access design

We will ensure that high quality design is achieved. The Walk England Access study highlighted the design and range of styles used on interpretation panels. We will be working to the standard set out in the newly adopted Derwent Valley Mills World Heritage Site Interpretation Plan. We also intend to seek professional design support, to ensure design quality is achieved.

Leaflet and guide production – will also be assisted by professional graphic designers.

The web site will employ professional designers to ensure the information is provided in an exciting, informative and user friendly way.

All the physical projects will employ appropriate designers. For example the Cromford Canal towpath work will be designed by Derbyshire County Council's Countryside Section, who are experienced in constructing physical outdoor recreation routes using local materials. The Crich Tramway Museum's viewing platform will use an external designer such as a landscape architect.

d) Access to different heritage features

The iconic cultural heritage structures listed within the WHS are well accessed and documented. However elements of the Scheme will improve visual access to them i.e. the 'Opening Up of Iconic Views' will reveal views now lost to unmanaged vegetation.

The Scheme will primarily be focussing on the lesser known heritage assets through the Heritage at Risk project. This will work in tandem with other projects such as Lighting up the Flowers, which will reveal and record lost heritage feature. Access will be provided through surveying their locations, recording and providing the information on the website.

Projects such as the Duffield Castle, will, through a volunteer based investigation, hopefully unlock unknown archaeological remains of the castle. Access will be provided through on site interpretation and placing the information on the website.

Similarly the Slinter Mill project will involve surveying the historical water management system which passed down the via Gellia Valley to the Slinter Mill, no additional access will be provided but there will be informative information through interpretation.

f) Access and learning projects

The Scheme's access and learning projects are identified below together with the objectives they address. A full programme of projects is covered in Section 7. impacts may create both opportunities and threats. In the Derwent Valley, there is therefore a need to plan ahead to secure the future of the landscape. Taking action to respond to the impacts of climate change will depend on the cooperation of those who own and manage the land. This cooperation should not be taken for granted and many measures will require appropriate incentives.

Project	Details	Objectives
Improving Access	Improving access 'for all' along the Cromford Canal	C1
Learning my landscape Linking schools to the local landscape and raising awaren of the Lower Derwent Valley		C4, C5
Derwent Explorers	To allow young people to have a residential visit in a remote Derwent Valley Hostel	C5
Quarry Heritage investigation	To engage local people in the history of the quarry industry	C3, C4, D3
Derwent Valley Heritage way Improvements	To involve the local community in improvements to the heritage way	C1
Get to know your rock	Geological investigation and interpretation	C3, D3
Getting around the Lower Derwent Valley	A guide to getting around the Lower Derwent Valley	C3
A strategic approach to interpretation	To develop the WHS Interpretation Plan with professional help	C3
Bringing the WHS to life	New technology to bring the WHS to life – an App and audio guides	C3

^{6.3} Climate Change

6.3.1 Overall Effect

The natural environment is changing as a consequence of human activities, and one of the major challenges ahead is climate change. Even the most optimistic predictions show us locked into at least 50 years of unstable climate. This will have a direct impact upon the landscape, and the people living and working within it. Indirect impacts will occur as society adapts to climate change. These Evidence from the UK Climate Impacts Programme (2002) shows that the climate in the Derwent Valley over the coming century is likely to become warmer and wetter in winter, and hotter and drier in summer. In addition, rainfall intensity will probably increase. Extreme events such as heat waves and storms are predicted to increase in frequency and severity.

The most significant features provided by the Derwent Valley, which may be impacted upon by climate change

Climate Change Impact Analysis

Asset	Risk	Likely effect	Projected impacts
Vernacular buildings and structures (traditional farm buildings, mills, bridges)	Extreme storm events, prolonged winter rainfall, prolonged summer droughts, flooding	Damage to buildings and structures. Erosion of footing	Loss of historic fabric
Below ground field archaeology	Extreme storm events, prolonged winter rainfall	Erosion of soils covering below ground archaeology	Loss of historic fabric
Earthworks	Extreme storm events, prolonged winter rainfall	Poaching of earthworks by livestock running on saturated soils. Increased erosion where earthworks are exposed and have poor vegetation cover. Wind blow of trees on earthworks	Erosion and significant structural decline of historic earthwork features. Windblown trees in particular will damage earthworks as the upturned root plates lift and disturb significant sections of earthwork
Historic weirs – man made water features	Extreme storm events, prolonged winter rainfall	Increased erosion and flash flood events may lead to structural collapse of water features	Loss of important designed water features
Historic and veteran trees, including trees in designed parkland	Higher annual mean temperature. Higher winter temperature. Increased winter rainfall. Increase in extreme storm events	Some species may be less suited to warmer conditions. Prolonged saturation of river valley soils may kill some species. Significant numbers of trees may fall victim to wind blow	Loss of veteran and historic trees in the landscape. Some historically authentic new tree plantings may fail before they reach maturity
Visitor attractions	Warmer summer temperatures	Hotter weather may encourage more people to visit Derbyshire	Increase in visitor numbers, particularly at holiday times putting pressure on transport infrastructure
Public rights of way	Warmer summer temperatures. Wetter winters	Hotter weather may encourage more people to visit Derbyshire, and/or become more active	Increase in visitor numbers, increase in people using rights of way. Leading to congestion of popular routes (e.g. Cromford canal, Midshires Way Way, DVHW) and greater levels of erosion
Landscape character	Prolonged summer drought. Prolonged winter rainfall	Change of viability of farming in some areas, leading to abandonment or inappropriate management	Loss of key features such as unimproved grassland, leading to homogenous scrubland character. Impacts on biodiversity. Potential impact on historic environment
River Derwent	Increased winter precipitation and storminess	Increase in flash flooding	Flooding of homes and businesses. Impacts on biodiversity. Impacts on the historic environment
Floodplain Grazing Marsh	Prolonged summer drought. Prolonged winter rainfall	Increase in flooding. Less available water resource in summer	Increased frequency of flooding. Increased silt loading. Loss of breeding habitat for wetland birds. Potential for better storage of winter rainfall

(Cont'd)

Asset	Risk	Likely effect	Projected impacts
Lowland Hay meadows	Wetter winters Drier summers. Increased temperatures and longer growing season	Higher water table. Increased frequency and duration of flooding	Temperature changes may cause certain species to flower and set seed earlier in the season. Wetter winters and flooding events could affect the integrity of flood meadows
Lowland Dry Acid Grassland	Drier summers. Wetter winters. Increased temperatures and longer growing season	Summer droughts may favour annual species over perennials	Changes in floral composition may shift to favour southern temperate species. Less summer forage available for grazing. Drier conditions may make agricultural areas less viable
Wood Pasture and Parkland	Increased summer drought. Increased storm events	Increased rate of loss of veteran trees	Loss if biodiversity through loss of veteran tree habitat. Loss of landscape quality through loss of old trees
Ancient semi-natural woodland	Increased summer temperature. Summer drought. Increased risk from new pests and diseases. Higher intensity rainfall events	Drying out of rainfall- dependent sites in summer. Possible increase in land dor flood storage. Changes in ground flora composition – probably no major losses of common species. Changes in canopy tree competitiveness (particularly beech and sycamore)	Individual rarespecies may increase or decrease. Increase in holly and beech. Decline in woodland cover. Increased threat of fire on driest sites. Increased impact of agricultural practice on adjacent woodland
Lowland Calcareous Grassland	Increased summers temperature. Wetter warmer winters. Longer growing season	Drought. Increase in spring biomass and decrease in summer biomass	Possible decline of perennial species due to drought die back. Increase in drought tolerant species

include:

- Soils and geology which underpin all agricultural activities
- · Water resources, key for human and animal health
- Food and fibre resources from farming, fisheries and forestry
- Recreation, tourism and educational opportunities, which are of key importance in such a popular area as the Derwent Valley.
- The important role played by the Derwent Valley woodland resource in slowing and holding water during peak rainfall events, and helping to provide flood protection for the City of Derby and other communities throughout the Derwent catchment.

The contribution that maintaining and enhancing the habitat network can have towards climate regulation by locking up carbon from the atmosphere. The most significant impacts of climate change are likely to be:

- A change in species and the composition of habitats
- Changes in the timing of flowering, breeding and migration
- More frequent droughts which could result in crop failures, and low river levels affecting biodiversity.
- Increased erosion in winter, resulting in more nutrients and sediment being washed into the river.
- The ability of species and habitats to recover from repeated drought, flood and storm events may be compromised. In woodland, storms can be a positive

impact, creating open space.

- A loss of mature and veteran trees in the landscape as they succumb to extended droughts and more severe storms.
- Differences in the ability of woodland species to adapt to a longer growing season.
- An increase in the popularity of shaded areas such as woodland for recreation as temperatures rise, leading to an increased fire risk.
- Greater risk of heat stroke and sunburn as average summer temperatures increase.
- Reduction in water resources available for agriculture, recreation, water supply and habitats.
- Changes in the viability of some crop varieties and livestock breeds that are less able to cope with drought conditions
- A more extreme cycle of wetting and drying and increased soil erosion due to peak rainfall events may result in damage to historic buildings and features, changing the look of important vernacular buildings and walls in the landscape.
- An increase in the intensity of grassland management and, potentially, in the area of cultivation in the valley bottoms as a response to longer growing seasons. Coupled with demands for more or new crops, this may exacerbate pressures on land use and seminatural habitats in the valley bottom.
 - Renewable energy infrastructure could lead to conflicts with landscape, biodiversity and tourism interests and will be another pressure on land use within the area.
 - Increasing pressure for food production on land use, in response to concerns about food security and population growth, may reduce the extent of floodplains, increasing flood-risks downstream.

^{6.3.2} Dealing with climate change

Responding to the impacts of climate change requires adaptation to prevent environmental assets and the social and economic benefits they provide from being lost.

There are a number of things that can be done:

• Enhance the condition of existing habitats to improve

their resilience, and ensuring there is structural diversity within these habitats, so that there are a wide variety of microclimates. Currently only 18% of local wildlife sites are in favourable condition due to management neglect in woodlands, undergrazing etc. Addressing these issues would help to increase the resilience of habitats and wildlife.

- Restore and create habitats by extending existing
 areas of semi-natural habitat and creating new
 habitats. Extending existing habitat networks, (such as
 the woodland network from Matlock Ambergate) is
 seen as the best way to safeguard the greatest number
 of species.
- Encourage more sympathetic management of the landscape to make it less vulnerable to flood events. This may include more trees and woodlands in the hills and valleys, wetlands slowing down water in the valley, and less intensive farmland, again slowing down rainfall. E.g. maintaining uncropped field margins, particularly adjacent to the river and its tributaries.
- Identify research needs and commission appropriate studies to build adaptive capacity. For example, quantifying the impact of native woodland and other land cover on water quantity, flow and quality and mitigating flood events.
- In the wider landscape, promote a variety of tree species to eventually replace existing mature trees and safeguard against catastrophic events such as drought, storms and flooding.
- Record and rescue some structures and known archaeology, as a safeguard against total loss of features through erosion and flooding.
- A local wood fuel economy would bring many more under managed woods back into active management, improving their landscape and biodiversity value and giving an economic return to woodland managers, while also helping to mitigate and adapt to climate change.

The future of the Derwent Valley depends on the actions taken today to reduce our greenhouse gas emissions. This, combined with changes to the management of the landscape, will determine whether we continue to have a high quality cherished landscape. The Climate Change Impact Analysis detailed has acted as a guide to developing projects within the Landscape Conservation Action Plan: (see page 68 proceeding)

6.3.3 Managing Flood Risk

Managing flood risk and achieving good water quality are priorities for the Environment Agency, one of the Partnership's key partners. There are a number of initiatives being developed within the River Derwent catchment which includes the Lower Derwent Valley, these include:.

The Lower Derwent Flood Risk Management Strategy produced in 2009 which considered opportunities to manage flood risk and provide environmental benefits in the Derwent catchment. The strategy identified that some areas are at a higher risk of flooding than before, partly due to changes in land use and land management, which affect how quickly water runs off the land and into the river. Changes in agricultural management and development in the urban areas have contributed to the increased rate of run-off.

There are a number of tributaries to the Derwent, where diffuse pollution is contributing to the moderate or poor condition of the water bodies as categorised under the Water Framework Directive (WFD); in certain areas this is attributable to poor land management practices. Through the Derwent Land Management Project, the Environment Agency will use a variety of land management approaches, which aim to reduce runoff and/or diffuse pollution; this will mean working with natural processes to reduce flood risk & improve water quality; approaches include woodland planting and management, meadow restoration; planting of buffer strips, and the creation of woody debris dams. There is strong evidence from the research arm of the Forestry Commission, that small scale catchment land management approaches of this type can deliver cumulative flood risk benefits by reducing and delaying the flow of water downstream.

The Derwent Land Management Project, seeks to capitalise on and influence existing opportunities, to work with external partners to deliver practical land management solutions, that deliver flood risk and WFD objectives, as promoted in The National Flood and Coastal Erosion Risk Management Strategy for England. Working in this section of the catchment provides the link between the Environment Agency's work with Moors for the Future in the uplands and Derby City in the lowlands. There is a real opportunity to demonstrate how this partnership approach through DerwentWISE can be effective in making a difference to the water environment. Such approaches are supported by DEFRA's Making Space for Water strategy, the Water Framework Directive, DEFRA's Water Strategy and the Pitt review. The Pitt Review recommended exploring an alternative approach to complement engineered defences, including land management and working with nature to mitigate flood risk.

It is anticipated that the DerwentWISE project will contribute to these specific project objectives and as a partner will contribute to the delivery of the Environment Agency's Corporate Strategy and the respective strands from 'Working for a better Midlands: Midlands local contribution 2011-2015' :

Theme 1: Act to reduce climate change and its consequences: Midlands is more resilient and adapting to climate change.' Theme 2: Protect and improve water, land and air: 'Water bodies in the Midlands are healthier, ecologically diverse and none are deteriorating.'

Theme 3: Work with People and communities to Create Better Places: More people, property and the natural environment is protected from significant flood risk.'

Theme 5: Be the Best We Can: 'We make the best use of our funding and maximise contributions from others.'

^{6.4} Effects on the Environment

The project will ensure that its impact on the environment is minimised.

Derbyshire Wildlife Trust is an environmental based organisation and its Environmental Policy will be strictly adhered to by the scheme staff. This will ensure that materials are locally resourced, recycled paper is used and energy consumption is minimised. The physical projects we are undertaking will complement the environment i.e. the promotion of sustainable woodland management.

Learning and training projects are primarily being coordinated by the Derbyshire Wildlife Trust's, people engagement staff and Derbyshire County Council's Eco Centre. Both have experience in promoting environmental good practice and getting people to think about their impact on the environment.

The Getting around the Lower Derwent Valley access guide will encourage the use of footpaths, cycle routes and public transport to enable people to sustainably move around the Scheme area. The valley is well served with both a train and bus service travelling along the valley. Leaflets, the web and at events good environmental practice will be promoted.

Working with the Environment Agency, the project will contribute towards the delivery of the Waterway Framework Directive and will assist in combating the impact of climate change.

Finally, an option being considered is for the project team to be based at the Derbyshire Wildlife Trust's Whistlestop Centre. This is the former Matlock Bath Station converted into an environmental education centre. This will give public transport access right to the door.

^{6.5} Maintenance of heritage

The Conserving or Restoring Programme projects are predominantly on land owned by public bodies or trusts – such as the Derbyshire Wildlife Trust, the Crich Tramway Museum or the National Trust. This will mean that a high level of control will be maintained, which will ensure that habitat creation or management objectives are realised.

Those natural heritage projects on private land, in most cases, will be funded either through the Scheme Conservation Grant, Environmental Stewardship or Forestry Commission Grant. In all three funding sources, conservation management agreements will be put in place to ensure long term sustainability.

Similarly to the natural heritage projects, the majority of cultural heritage projects are being undertaken on land belonging to public bodies or trusts, which will ensure that management is put in place. Where work is undertaken on private land, then where appropriate, management agreements will be put in place. In some cases however, this may not be feasible. Stone walling repairs may be an example where landowners may not be prepared to enter into a formal agreement, yet it may be important from a landscape restoration perspective to undertake this work. We may have to accept that although a management agreement will be encouraged, in some instances it may not always be achievable.

The Heritage at Risk Project will serve two management functions. Firstly to identify heritage assets which are at risk and need attention and management and to identify through the LIDAR survey previously unknown pre -industrial heritage features, which otherwise would have been lost, due to lack of knowledge.

Finally the guidance for the World Heritage Site listings comes within the responsibility of the World Heritage Site Partnership and the guidance for this is provided within the World Heritage Site Management Plan.

^{6.6} Management of the Scheme

6.6.1 Management Team

The management team will manage the projects across the three programme disciplines and ensure a high level of consistency and programme linkage. The Project manager will have substantial project management experience together with a broad knowledge of landscape, natural heritage and cultural heritage. In addition the project officers will be experienced in community engagement, with one experienced in cultural heritage and the other experienced in natural heritage. The team will have access to an experienced Partnership Board with expertise across a broad swathe of professional and managerial disciplines.

^{6.6.2} Visitor conflicts with the heritage

The Derwent Valley Mills World Heritage Site is a tourist destination centre, this is especially the case as

far as the tourist focussed Matlock Bath and Cromford Mill complex are concerned. The Scheme projects are not intended to add to the visitor numbers but to assist in creating better visitor management and heritage experience. Projects which will assist in this will include – the Web Site, Getting around the Lower Derwent Valley, the Heritage Way Improvements and Heritage Way Guide.

All the projects will be monitored and evaluated within the monitoring and evaluation process and any adverse effects will be reported upon and action to remedy any effects will be taken.

^{6.6.3} Appropriate heritage and people skills for staff, volunteers and contractors

Staff- this will be secured through the job descriptions and appointment process. In addition a budget of $\pounds 9,566$ has been allocated for the provision of appropriate training as necessary.

Volunteers – volunteers will be involved across a broad spectrum of projects. They will be under the direction of the Scheme officers or specialist consultants. For some projects specialist skill training will be provided this will be through the Eco Centre or as is the case with the Heritage at Risk project through specialist bespoke training.

Contractors- this will be ensured through detailed appointment briefs and specifications. Evidence of previous work experience will also be required.

Heritage conflicts – the Partnership Board will resolve any conflicts which arise. The board members are all used to working within a professional multidisciplinary environment making informed decisions. There may be healthy debate but we do not envisage conflicts occurring.

Management Standards – these will include The Trust's Environment Policy, Quality, Equal Opportunities Policy and Risk Assessment / Health and Safety Policies.

6.7 Managing Information

^{6.7.1} Decisions based upon information

Projects requiring specialist information be it for example, a natural heritage project such as developing a wildflower meadow, a landscape management project such as the Willersley Castle landscape management plan or undertaking archaeological work at Duffield Castle, will be under the direct supervision of, or guided by appropriate professional consultants. This will be ensured through the management structure, especially the Scheme Board who include representatives from specialist statutory bodies and specialist organisations and the project summary briefs which set out projects which require specialist support. Only when sufficient information is in place or when specialist monitoring is in place will the project start.

^{6.7.2} Who will provide the research

Investigation and research will be provided by a practicing professionals i.e. archaeologists, ecologists, conservation architects and landscape architects. However much of the information gathering and research will still be undertaken by volunteers who will either be under the direction of professional experts or will have undertaken appropriate courses as will be the case with the Heritage at Risk project.

6.7.3 Storage of information

The project will be gathering a great deal of information especially within initiatives such as the Heritage at Risk project. This information will be recorded on an online form which will record their survey information and will be accessible on the DewentWISE Web site. In addition this information will also be recorded on Derbyshire County Council's Historic Environment Record and will be publicly available through their online Heritage Gateway Site, maintained by the Conservation and Design Department.

^{6.7.4} Informing the public/Information

This will be essential to ensure that the public are informed of what is happening on a day to day basis. A communication plan will be need developing within the first year to ensure we target the right newspapers and media outlets and ensure they are made at the right time to maximise publicity.

We will be having a dedicated Website and in addition

we will use Twitter and Face book. For those who are not IT minded we will still be using posters and leaflets at key venues such as libraries, cafes and visitor centres. Lastly we will also have the support of two very active websites – the Derbyshire Wildlife Trust's own web site and the Derwent Valley World Heritage Site, which will link in to the DerwentWISE site.

6.7.5 Flexibility

The projects have been scrutinised by the Partnership Board and interested parties. Year 1 projects are fully worked up and ready to go. Year 2 - 5 projects are not as fully worked up and flexibility does need to be allowed for. There are three areas where flexibility will be necessary, these are: time, money and outcomes.

Time – The five year programme allows a reasonable amount of flexibility and the plan which has been developed allows for some time flexibility.

Money – we are aware of some projects within Years 2 -5 which require additional funds as match funding. We are confident of securing these funds and some contingency has been allowed for.

Outcomes – Outcomes are essential in measuring the success of the Scheme. Although Years 2 -5 outcomes are estimates, a modest flexibility will need to be allowed for although we are still confident of achieving them, if not exceeding them.

6.7.6 Licenses and permissions

The Partnership includes 4 local authorities, the Environment Agency, the Forestry Commission, English Heritage and Natural England. They have all been involved with the development of the bid and will advise and assist with gaining consents and permissions for the work we are undertaking.



7.0 Scheme Plan and Costs

Cromford Canal

Cyclists must give way to walkers. The towpath is a public footpath with concessionary cycling rights only.

An example of an opportunity for better designed signage

The development phase commenced in February 2012 and identified detailed projects within each programme theme. The methods used for creating the projects, included the commissioning of four studies, covering natural heritage, cultural heritage, access and interpretation. In addition there was an extensive consultation exercise. A detailed report on this process is covered in Section 3.5 of the plan.

As the development stage progressed, it became very apparent that there was a substantial amount of interest in the Scheme and more projects were being identified and put forward than were realistic within the budget available. The difficult process of selecting the projects was undertaken by the Partnership Board using a selection criteria which was developed. See Appendix 20.21 Project appraisal criteria

Within the appraisal process an assessment of a realistic budget spend and time availability was undertaken for Year 1. Initially Year 1 projected spend was considered too high but, following close scrutiny, this was seen as realistic, with Year 1 involving a substantial amount of start up cost. This included expensive items such as the LIDAR survey, vehicle acquisition, web site provision and some survey costs.

A characteristic of the DerwentWISE Landscape Partnership is the number of small projects, in all a total of 54 have been developed. We believe this is a real strength of the programme, enabling maximum impact and effect, across a large, complex and varied landscape.

⁷¹ Summary of Phase 1 Application Projects

The Stage 1 Application covered a broad range of project themes, for reference these are identified below.

7.2 Delivery Phase

When the Stage 1 application was submitted, projects were identified within each programme. Although they had output targets and budgets, as would be expected, at this stage they weren't fully worked up into detailed working projects. For Year 1 and to a lesser extent for Years 2-5, the development phase has done this. This has

Programme Heading	Project Identified at Phase 1
Programme A - Conserving or Restoring	Grants to natural heritage projects. At least 20ha of priority habitat or geological sites created or restored
	A land management advisory programme managed by the conservation Officer
	20 signed agri-environment agreements
	125 landowners / groups advised or assisted
	200ha of priority habitat or geological sites to be maintained/enhanced / created
	Grants to built heritage projects (£150k from Scheme plus 10% match provided
	by grantees)
	At least 10 built heritage features restored.
Programme B - Increasing Community Consultation	Website development
	Community engagement programme (delivered by scheme staff)
	25 groups engaged in landscape research/interpretation projects
	10 'Friends of' groups developed/supported
	1 launch event on multiple sites
	1 celebration event on multiple sites
	25 activities (E.g. guided walks) delivered

Programme Heading	Project Identified at Phase 1
	Participatory arts projects (Derwent Arts) 88 school / community workshops
	Community Heritage at Risk project 125 volunteers engaged 1000 features surveyed GIS based map of risk to historic environment features within the scheme area
Programme C - Access and Learning	Grants for physical access and/or interpretation 20 sites of heritage interest with improved physical access 20 sites with new or improved interpretation Railway walks network developed
	Schools educational programme17 teacher training sessions (10 teachers each)280 sessions with school groups (28 pupils each)25 residential trips (20 pupils each)
	Forest Schools programme 60 sessions (up to 15 people per session)
Programme D - Training	 Training Heritage skills training programme (Eco Centre with National Stone Centre). See Appendix 10c 5 heritage skills demonstration events 10 follow-on short heritage skills courses 20 accredited heritage skills courses 3 courses (10 people per course) 'Preparing to Teach in the Lifelong Learning Sector' 16 people trained as Forest Schools Leaders
	Land managers' training programme 20 informal courses on heritage management techniques
	 Heritage skills short courses / activities delivered by DWT and the National Stone Centre 70 youth ranger sessions (10 people each) 60 walks and talks (15 people each) 75 practical training sessions (15 people each) 90 family learning activities (30 people each)

resulted in some changes and modifications; identified below within each programme.

7.2.1 Programme A – Conserving and Restoring

Within the Stage 1 application, the conserving and restoring programme had two main projects, these were, 'Grants to Natural Heritage projects' and Grants to Cultural Heritage projects'. Each of these had an allocated budget of £166,667 which included a 10% contribution from landowners and / or beneficiaries. In addition, there was a key project identified as, Delivering Conservation Outcomes to the Natural Heritage.

The cost for this was nominal as it was to be delivered by the project team staff.

Within the development stage three reports were commissioned; covering landscape and natural heritage; built heritage and the use of historic building materials. (See Section 3.5). These reports enabled a thorough understanding of the Scheme's landscape and heritage (built and natural), its problems, challenges – and finally to make recommendations for its conservation and restoration. These studies form the baseline for the production of individual projects. Funding for these projects was allocated from the two grants budgets and utilised staff management time from within the delivering conservation outcomes project. Conservation outputs shown in the Stage 1 application are now specifically identified from within the individual projects.

Detailed project development was essential to ensure that projects were ready to start within Year 1 and identified for delivery in Years 2-5. In addition to being based on sound evidence of need and deliverability, the projects were supported by the consultation process, which provided valuable evidence of community support.

Three projects which were identified within the Stage 1 application, are still present, these include: the Willersley Castle and adjoining Arkwright Society land -Historic Landscape Management project, the Species Rich Meadow Creation project at High Leas Farm and the survey / interpretation work at the High Peak Junction wheel pit, although this latter project has now been extended to include a historic crane and the remains of an engine house.

The two grant projects do still exist within the programme but now on a reduced scale. See project – A8-A8B Landscape conservation programme and A30B Cultural Heritage Grants Programme. Significantly smaller than the original budget these do still offer a fund for undertaking a range work identified as worthwhile during the delivery stage, although some sites have been identified for further investigation in the Landscape conservation programme (A30 – A30B).

Management and maintenance costs

Within the Stage 1 application $\pounds 39,000$ was identified as a match funding allowance for the cost of future maintenance over a 10 year maintenance period. We believe that additional maintenance on the projects we are undertaking, will easily reach the value originally submitted and will include the following sites.

A1- A1B The Grazing Comes To Town Initiative

- various owners

A2 -A2B High Leas Farm - privately owned

A4- A4B Allestree Park Meadow Creation - owned by

Derby City Council

A5–A5B Lea Wood – Lighting up the Flowers – owned by Derbyshire Wildlife Trust

A9B Belper Parks – owned by Amber Valley Borough Council

A14 – A14B Willersley Castle Landscape – privately owned and Arkwright Society.

A15- A15B Milford Plantation

C1- C1B Cromford Canal – owned by Derbyshire County Council

C7- C7B Crich Tramway – Lead Mine Access and Interpretation – owned by the National Tramway Museum

We are not able to provide a detailed breakdown of value at this stage but this will be provided as the projects are completed.

Projects Sheets which give breakdowns of each project within Programme A Conserving or Restoring are in Appendices 12.1.1

A summary of all Programme A projects is available as a supplement at the end of this document.

^{72.2} Programme B – Increasing Community Participation

The Stage 1 application had three main projects: website development, a community engagement project delivered by the Scheme staff, a participatory arts programme and a Heritage at Risk project. Some changes have been necessary although overall the programme has remained largely unchanged.

The modifications are as follows:

a) Website Development

Website development is an important element of DerwentWISE. It will be designed so that the outward facing areas of the site will clearly display DerwentWISE, with identifiable branding and information. The change from Stage 1 will be that the internal face (i.e. where it is hosted) will be within the DVMWHS site. As far as the public are concerned DerwentWISE will have a standalone website identity. However this will mean some re-designing of the existing DVMWHS site, hence their contribution.

Part of the brief to the website designer will be to ensure that DerwentWISE is clearly identifiable as a separate entity but with strong sign-posting from the updated DVMWHS site. It will be accessible directly by the DerwentWISE project team and volunteers to populate information as and when necessary. The budget of £15,000 remains the same, although £5,000 will now be provided for the overall web design by the Derwent Valley Mills World Heritage Partnership, as the website development will include updating of the DVMWHS site.

This proposal was discussed in detail by the Partnership Board and the rationale for this approach is as follows:

Legacy - DerwentWISE has only a 5 year- lifespan, but by being hosted on DVMWHS website, it will have a life beyond this.

Match funding – as it is planned to update the DVMWHS website it seems sensible to use the available funding to support the development of the DerwentWISE site, enabling a symbiotic approach, offering value for money and benefiting both initiatives. Area of operation – The project's physical boundaries align very closely with those of the World Heritage Site, and the overriding purpose of the World Heritage Site "to protect, preserve and promote" matches closely with that of the DerwentWISE project

Access – many more people would access DerwentWISE as they would be visiting DVMWHS which already has a strong web presence and is also widely known through social networks such as Facebook and Twitter, although DerwentWISE would develop its own Facebook and Twitter pages. The World Heritage Site has an extensive mailing list which could be utilised by DerwentWISE. Publicity – the DVMWHS has an established brand and publicity network supported by a wide range of partners from which DerwentWISE would directly benefit. **Contiguous aims** - DVMWHS is one of the main DerwentWISE partners. The project's physical boundaries align very closely with those of the World Heritage Site, and the overriding purpose of the World Heritage Site "to protect, preserve and promote" matches closely with that of the DerwentWISE project.

Finally the DerwentWISE domain name has been registered and can now only be used in association with the landscape partnership Scheme.

b) Community engagement project

Originally this project had a budget of $\pounds 30,000$ but it included a celebration and launch event. These two activities have now been developed as separate projects (B14 and B 17) and additional projects have been developed such as the Lost Stories Photography Project and the Video Monitoring Project. In addition some access and interpretation work is now being undertaken within the Access and Learning programme. The project now has a reduced budget which will focus on developing and helping existing friends groups, walks and talks and be a reserve fund for any community initiatives which arise.

c) Participatory arts project

This is the largest community participation project and the vision and budget remain largely unchanged from the original Stage 1 application. They have now been developed by Fleet Arts into a total of 8 exciting and innovative projects developed around the community engagement process and specific projects within the conserving or restoring programme. These projects are aimed at working with schools and hard to reach groups. Fleet Arts is an experienced locally- based charity and will be engaged to manage the projects. The management costs amount to £7,592, which has been added to Programme E – Overheads, scheme staffing and running costs. This work will be let on a single tender contract basis, a copy of which is within Appendices 12.8. The only significant change has been three projects developed with the University of Derby's photography department. This was an opportunity which materialised

with the University becoming a full partner. These include a Lost Stories Photography project, a Film and Photography Monitoring project which will record the projects as they are delivered from Year 1 through to the final celebration and a photography project based around the LIDAR mapping process.

d) Heritage at Risk Project

This project is one of the key community participation projects with a target of 125 volunteers to be engaged and over 1,000 heritage features to be assessed. Heritage Lincolnshire undertook the Cultural Heritage study and with their previous experience of running a similar project in Lincolnshire it is now fully costed and detailed, so is ready to start in Year 1.

Unfortunately an additional cost was identified which was not foreseen at Stage 1. It will be essential to undertake a more detailed LIDAR survey within the area between Matlock Bath and Ambergate. At Stage 1 the Environment Agency agreed to provide a survey for the entire valley. Although they have agreed to this being available and made it available during the development stage, it is unfortunately at 2m centres, not in sufficient detail to be of value within the steep wooded slopes between Matlock Bath and Ambergate where a survey of 0.5m centres is necessary. This area has been identified as one of the most important areas of pre - Industrial Revolution cultural heritage. Furthermore, due to the difficult terrain it hasn't been fully surveyed in the past and it could unlock undiscovered heritage features. It will be essential to commission a more detailed survey at the start of Year 1, if this area is to be included within the Heritage at Risk project. The estimated cost of the survey is \pounds 26,185 and has been included within Programme B -See project B19-B19B LIDAR survey.

Projects Sheets which give breakdowns of each project within Programme B Community Participation are in Appendices 12.1.2.

A summary of all Programme B projects is available as a supplement at the end of this document.

7.2.3 Programme C – Access and Learning

Within the Stage 1 application the access and learning programme had two main projects, 'Grants for Physical Access and / or Interpretation and the Schools Educational programme. Valued at \pounds 133,333 and \pounds 174,316 respectively.

During the project development stage an 'access and Interpretation study' and a 'community engagement programme' were commissioned. (See Section 3.5 of the Plan).

These reports enabled a thorough understanding of the Scheme's access issues and made recommendations for priority projects.

a) Projects developed within the Stage 1 Access Interpretation programme

The most significant developments were:

Interpretation - Developing an interpretation programme based upon the Derwent Valley Mills World Heritage Site plan but clearly identifiable as DerwentWISE. This would include professional design support. See C9B and C13B.

New technology – using new technology to bring the DerwentWISE heritage to life. See C12B.

Cromford Canal – working with Derbyshire County Council's Countryside Services Team to create 'access for all'. See C1- C1B.

Derwent Valley Heritage Way – to work with the Derwent Valley Trust on a heritage way guide and to undertake a community based condition audit. See C5B, C17.

Crich Tramway Museum – to work with the museum trust on a physical access and interpretation project. See C7.

Although these projects, have reduced the original 'grants for access / interpretation' programme, a small budget has been retained to continue the programme. It will be used as a reserve fund to deal with priority access or interpretation issues as they arise.

b) Projects developed within the schools' educational programme

This project has now been fully worked up and is split into three projects – Learning my Landscapes (C2 – C2B) Derwent Explorers (C3 – C3B), and Delving into Quarry Heritage (C4– C4B). The most significant change is that it was originally intended that some of the programme would have been managed by the National Stone Centre. The main quarry heritage project is – Delving in to Quarry Heritage. This will largely be based at the National Stone Centre but managed by the Derbyshire Wildlife Trust, with the National Stone Centre engaged on an annual basis to deliver the majority of the work.

Projects Sheets which give breakdowns of each project within Programme C –Access and Learning are in Appendices 12.1.3

A summary of all Programme C projects is available as a supplement at the end of this document.

7.2.4 Programme D – Training and Skills

The Stage 1 programme had two main projects and one minor project. The two main projects, the Eco Centre skills training programme and the Derbyshire Wildlife Trust's short courses and activities project have now been fully developed into working projects and their budgets have remained relatively unchanged.

a) Heritage Skill Training Programme

The training programme is being delivered by Derbyshire County Council's Eco Centre which is located within the DerwentWISE Scheme area between Wirksworth and Cromford. Within the Stage 1 bid this project was intended to be shared with the National Stone Centre. With the capacity of the National Stone Centre reduced the project is now being wholly undertaken by the Eco Centre, although a small National Stone Centre course has been introduced – see Working With Stone (D7B) below.

The course called Get Skilled For DerwentWISE (D2 - D2B), will offer training in woodland management, dry stone walling, archaeological feature repairs and archaeological interpretation and will be undertaken

throughout the DerwentWISE Scheme area, including Middleton by Wirksworth, Shining cliff Woods, Darley Park, Allestree Park, and on High Tor, Matlock Bath. Other locations will be identified as the Scheme progresses.

'Get Skilled For DerwentWISE' will be a comprehensive programme of learning opportunities for adults and young adults, targeting different needs and levels of skill competence. It will offer training for those casually interested through to those seeking higher level skills for careers and employment opportunities.

The original project budget included a Forest Schools leader training programme. This is still taking place but has now been identified as a separate project – see D1 Forest Schools – ForestWISE.

b) Heritage Skills Short Courses

This has been developed into an extensive project called Wildlife Guardians (ref D3-D3B). It will provide opportunities for local people of all ages, families and community groups to participate in wildlife recording and countryside management. Activities will include surveying, recording and practical conservation tasks and take place throughout the valley, enabling people to contribute to the sustainability of the Lower Derwent Valley landscape area. A feature of the project will be the development of a volunteer ranger group. A part -time people engagement officer will be employed by the Trust and could operate from the Wildlife Trust's Whistlestop Centre. The centre is the former Matlock Bath Station and is within the Scheme area. It has a range of educational facilities although it is intended to undertake the work across as many DerwentWISE sites as possible.

c) Land Managers' Training Programme

This was a small project (\pounds 5,000) to be administered by the project team. It consisted of informal courses / advice on land management. This work has now been incorporated into the Grazing Comes to Town initiative (A1–A1B) which covers land management advice.

d) Working With Stone

This is a small project which will be delivered by the

National Stone Centre. It will consist of a series of linked modules exploring geological origins, understanding stone in the landscape, buildings, making use of the National Stone Centre's national building stone collection. It will concentrate on basic skills in stone with an emphasis on conservation – dry stone walling/ masonry/ stone conservation and repair/carving and sculpting/use of lime, sourcing and matching. (See Working With Stone – D7B)

This is one of series of smaller but valuable projects which the National Stone Centre is confident of delivering within their reduced capacity.

Project Sheets which give breakdowns of each project within Programme C –Training are in Appendix 12.1.4

A summary of all Programme D projects is available as a supplement at the end of this document.

^{72.5} Programme E – Overheads, Scheme Staffing and Running Costs

a) The staff and running costs of the Landscape Partnership include those of the project management team who will be instrumental in overseeing and delivering the programme and in addition otherwise un-funded activity such as:

- · Community steering groups and working groups
- Collation of materials, archives, footage and photographs
- Supporting the Partnership Board
- Research and development work to ensure that where possible the work of DerwentWISE Landscape Partnership continues.

b) Staff and support

There are four project staff to be appointed, most importantly they will work as a team, reflecting the significant level of cross-over between job roles and projects. Detailed job descriptions are in Appendix 12.7, in outline the roles are as follows:

DerwentWISE Scheme Manager

The Scheme Manager will be overseeing the day-to-day management and work of the Landscape Partnership and staff. This will include leading on promotions and publicity, reporting and public relations. The Manager will also lead on ensuring that projects are being delivered to the objectives of the Partnership, to budget and to a high standard. He/she will also be responsible for reporting to the HLF on financial matters and project progress.

DerwentWISE Community Engagement Officer -Cultural Heritage

Will take a central role in working with community groups and volunteers and coordinating the community projects of a cultural heritage nature such as the Heritage at Risk project.

DerwentWISE Community Engagement Officer -Natural Heritage

The Natural Heritage Officer will work in tandem with the Cultural Heritage Officer working with community groups and volunteers and coordinating the community projects. However their role will be focussed on delivering the landscape and natural heritage projects.

DerwentWISE Finance and Administration Officer

(3 days per week), ensure timely financial reporting and payments and where necessary help other staff.

Evaluation and monitoring - consultant support

An independent specialist monitor will be appointed to ensure outputs are effectively measured and reported. He / she will be appointed within Year 1 for the entire 5 year duration of the Scheme. Within the Stage 1 bid \pounds 10,000 was allocated for this however further investigation has shown that this amount is insufficient; an allowance has now been made of \pounds 18,000, which includes VAT, to cover this important area.

Derbyshire Wildlife Trust management time

A significant in-kind contribution (\pounds 23,917) has been made by the Trust to cover line management time. This would primarily be Matthew Croney the Trust's Director of Living Landscapes.

Arts programme management

As discussed in 7.2.2 c) above the arts programme management costs have been reallocated within

Programme E and amount to \pounds 7,592.

This work will be let on a single tender contract basis, a copy of which is within Appendix 12.8.

c) Other management issues:

Communication strategy

The scheme is large and complex and will require good, consistent and coordinated publicity and communication. It will focus on:

- · Coordination of press releases
- · Terminology to be used
- Communications about projects to the Landscape
 Partnership Scheme staff
- · Production of leaflets, newsletters and website releases
- A DerwentWISE Blog

Much of this work will be also be covered within project B-1 DerwentWISE Website project, where some professional website management has been allowed for.

Project team minibus

The provision of a minibus was not allowed for within the Stage 1 application however during the development stage it was soon realised that a small project team vehicle was essential. This would be available to all of the project team and used to transport materials and occasionally volunteers to projects. Funding for this has been allocated within Programme A giving a total budget of \pounds 18,000 to cover purchase and overheads.

Accommodation

Initially the project team will be based at the East Mill in Belper, which is located within the Scheme area.

There may however be an opportunity to be based at DWT's Whistlestop Centre in Matlock Bath. Used as an education base, it is the former Matlock Bath Train Station which was converted to be an education centre and visitor centre some years ago. The visitor centre is no longer used and could provide accommodation and facilities for occasional exhibitions or meetings. There are several advantages to using the building as a base which are:

- Being a station it has gives regular public transport access to the door from Derby through to Matlock.
- The centre may be a base for the Wildlife Trust's learning project staff, if it is then there would be the opportunity for close collaboration with the DerwentWISE project team.
- There is space for exhibitions and occasional activities and events.

There would be some minor cost involved in internal modifications to enable the Whistlestop Centre to be used to accommodate the team. Initial estimates have indicated that this would require a spend of approximately $\pounds 2,500$. This would primarily cover the construction of a small stud partition wall which may require listed building consent. Further investigation will be required within Year 1 to see if the use of the centre is feasible.

7.3 Final Project Summary

See summary supplements at the end of this document for all financial information.

7.4 Match Funding

A funding sub- group will be established within Year 1 to identify additional potential funding providers and opportunities. The group will include representation from fundraisers from partner organisations and appropriate members of the local community

The group will be looking at conventional grant applications, trust funds and statutory sources along with ideas for sponsorship and local fundraising.

In the event that more funds are raised than required, these will be retained and allocated to support and deliver reserve projects which have been identified. See Appendices 12.12.3 for confirmation letters of match funding secured.

^{7.5} Reserve projects

Projects which have been developed and we have omitted due to budgetary constraints are in Appendices 12.1.6. If for any reason projects within years 2 - 5 are unable to proceed then reserve projects will be brought forward through the appraisal process.

^{7.6} State Aid

All the projects have been forwarded to DEFRA and have been assessed as deminimus and a scheme number has been issued. We will however have to inform all the project beneficiaries of the State Aid implications.

^{8.0} Scheme Legacy

High Peak Junction Pumphouse

174

1.547

All members of the Derwentwise Landscape Partnership are committed to maximising the enduring benefits which will accrue from the LP scheme.

^{8.1} What sort of legacy?

The Partnership hopes to deliver a legacy firstly in relation to the landscape as a whole. Such a legacy will be in line with the ambitions outlined in 'vision and aims' set out in Section 6 of this LCAP. Such area wide legacy might include:

- The overall improvement to priority habitats resulting from scheme activities (e.g. increased area, better condition, better linkages)
- · Landscape character is strengthened or restored
- · People continue to access heritage sites and features
- People feel a sense of ownership of interest in their local landscape and its diverse heritage.
- Improved joint working between members of the partnership, and hopefully further joint programmes of work
- An increase in local economic activity linked to heritage (e.g. through visitor spend). Secondly the Scheme's legacy will relate to individual projects.
 Provisional thoughts about project legacy are included in the project plans under the heading 'sustainability'. There are a large number of legacy opportunities, falling into different categories, including for example:
- Legacy DerwentWISE website remains accessible; interpretive provision is kept up to date / maintained / removed when past its 'sell-by' date
- Geological sites continue to be sympathetically maintained
- · Archaeological sites are safeguarded
- New records and data (e.g. Lidar survey results, biological data) stored and accessible
- Individual habitat management works continue (e.g.) to provide people with views lost previously as a result of the growth of vegetation, to result in increased diversity in ground flora / breeding bird populations

- Areas opened up to the public remain attractive and in use in perpetuity
- Colleges / schools continue to use the area's heritage aspects of the area to enrich their teaching programmes. Forest School programme becomes selffinancing
- Restoration of individual landscape features e.g. dry stone walls have a long term impact on the character of the area
- Volunteer activity continues; new independent volunteer groups established.

^{8.2} How will legacy be delivered?

One of the legacy challenges is that no single organisation will have an ongoing remit for landscape management, conservation and understanding across the Derwentwise area once the scheme delivery is completed in 2018. The organisations involved in the Partnership will however endure beyond the end of the scheme, taking on different legacy management roles, for example:

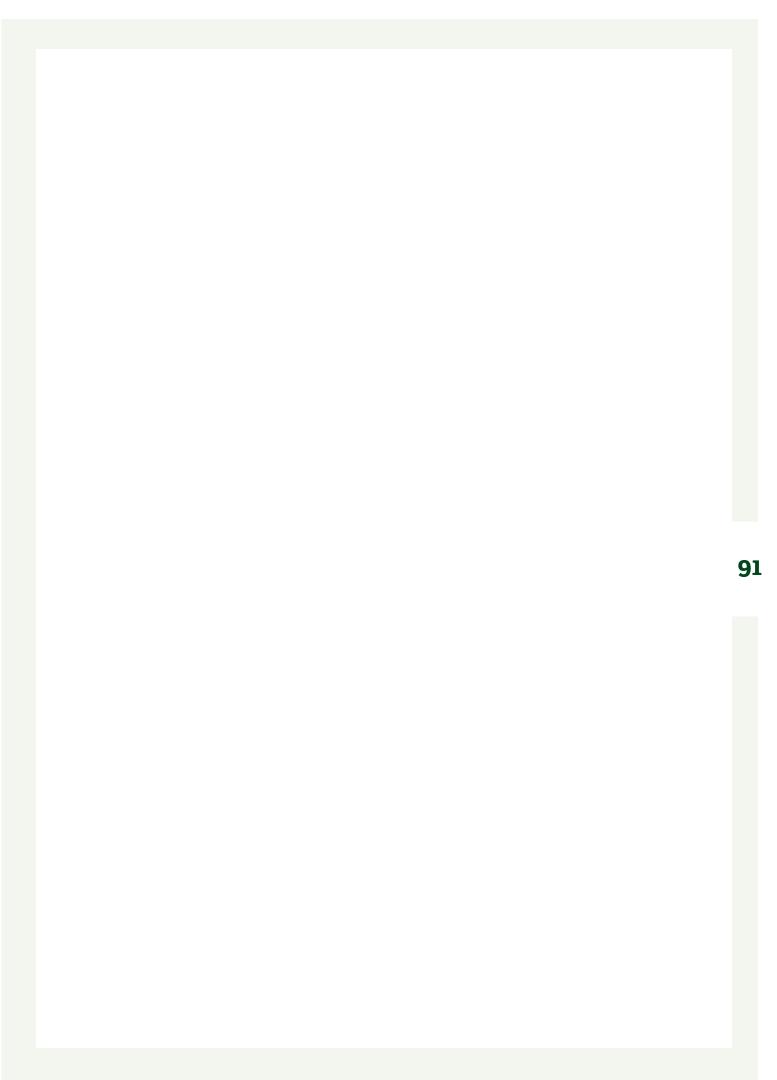
- Derbyshire Wildlife Trust will maintain oversight of the £39,000 match funding allocated to management and maintenance works relating to conservation and restoration works, over the period 2018-2028 fund (identified in the Round 1 submission). In section 7.2.1 (above) we identify 9 sites where this ongoing management expenditure will be invested.
- The Derwent Valley Mills World Heritage Site Partnership will continue to host the DerwentWISE (legacy) website for an indefinite period
- Partners who own / manage individual sites (for example Derby City Council, Amber Valley Borough Council, Crich Tramway Museum) will be encouraged to maintain the improvements which have been implemented on their sites.

The social, political, financial and organisational context for DerwentWISE will certainly have changed by 2018. In the light of this reality the partnership will remain alert to the way in which new opportunities or institutional arrangements might help secure the legacy of our scheme.

^{8.3} Development of a legacy strategy in 2016

The experience of 'mature' landscape partnerships suggests that as the scheme rolls out new legacy opportunities will come to light and some ambitions will prove to be unachievable. In light of this (and as recommended in the report 'Legacy Planning for Landscape Partnerships', circulated by HLF in February 2013) the Partnership plans to carry out a wholesale review of the legacy which we aim to achieve, and how this can best be done, as part of a mid-delivery review in 2016.

A central output from the mid-delivery review will be a formal Scheme Legacy Plan, which will need to be endorsed by the Partnership as a whole. The legacy plan will not only identify the sort of scheme wide and project legacy we hope to deliver, but will also identify actions which need to be undertaken before the end of the scheme in 2018 to ensure that happens. The legacy plan, which will update some elements of this LCAP, will identify who needs to do what, and will – together with a mid-delivery evaluation review – hopefully act as a tool to help secure resources for future work.



^{9.0} Monitoring and Evaluation



Rhododendron burning, Lea Wood

LCAP Report 2013

^{9.1} Purpose and approach

The DerwentWISE Partnership will incorporate monitoring and evaluation into its project management process from the outset. This will enable us to:

- Demonstrate to HLF, to other funders and to partner organisations what is being achieved
- Help us to maximise what we (and others) learn from delivery the landscape partnership scheme.
 Embedding monitoring and evaluation into our scheme at an early stage means we can use this learning to improve this scheme, as well as build on this when we undertake new programmes of work in the future.

The monitoring and evaluation process will be achieved through the following four activities:

- Working up a monitoring and evaluation framework (to be in place within four months of scheme commencement)
- Ongoing collection of monitoring data by delivery partners, in line with the M+E framework (on a quarterly / six monthly basis)
- 3. Mid-delivery review (2016)
- 4. End of scheme evaluation (2018).

The Partnership recognises that the complexity of the Scheme raises a number of challenges in terms of how it is to be monitored and evaluated:

- Tracking the different outputs and outcomes will require a mix of quantitative and qualitative measures
- The scheme is more than just a set of discrete projects, and it is important that we are able to demonstrate ways in which the scheme as a whole is delivering more than the sum of its individual projects
- M+E activities must not take up a disproportionate amount of resource (in terms of either cash or staff time)

In order to capture the full impact of the Scheme we will need to focus on both outputs and outcomes:

Outputs are measures of what the Scheme hopes to deliver through its projects. Outputs can usually

be quantified and include things like the number of volunteer days, hours of training delivered, metres of wall rebuilt, area of habitat restored, or numbers of individuals involved in an activity. Outputs relate to the objectives or planned benefits of each project.

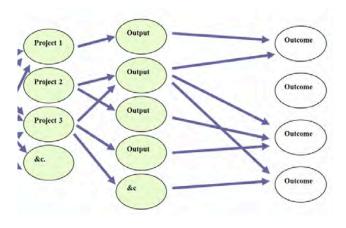
Outcomes are the difference the scheme will make: its impacts on the landscape and heritage features, and its benefits for the people who live or work in the area or enjoy it as visitors. They relate to four Heritage Lottery Fund aims for landscape partnerships. Many outcomes can be measured and may be the aggregate of project outputs. Other outcomes, in particular some of the benefits to people and communities, are less tangible and often captured by asking people to tell you about the changes they have experienced.

^{9.2} Developing a monitoring and evaluation framework

Early on in our delivery phase (and once we know exactly what we hope to deliver during year 1 of the Scheme) the partnership will draw up a document which identifies how scheme outputs and outcomes will be monitored, and will establish a system whereby those responsible for delivery of different elements of the scheme will collect appropriate data.

The M+E framework will draw heavily on the work carried out during the Scheme's development phase, and in particular on the provisional targets presented in this LCAP. The challenge will be to identify appropriate indicators and different types of evidence which will give us a reliable measure of the impact which is being made. The choice of indicators or of evidence type will be governed by a number of factors, including the extent to which these provide reliable data, measurability and ease of collection, and the availability of existing baseline data against which change can be assessed. One reason for completing this work early on in the delivery phase is that in some instances it may be useful if projects collect some baseline monitoring data of their own

The Monitoring and Evaluation Table below shows the sort of tabular form the framework might usefully take – with provisional suggestions for some of the indicators and evidence we will use. Once the Scheme is underway and the projects finalised, this will be firmed up, assigning actual target figures to replace "XX" figures in the draft table.



Substantial progress has already been made in identifying linkages and overlaps in section 6.2.1 above – linking projects with our overall scheme objectives. As well as identifying how outputs and outcomes overlap, this process will also enable us to see where efficiencies can be made in collecting monitoring data, thus avoiding duplication of effort.

The M+E framework will need to be reviewed and updated on an annual basis as new projects come on stream.

^{9.3} Ongoing collection of monitoring data by delivery partners / the project team

Once the framework is in place data will be collected by project leads and submitted to the Scheme manager on a quarterly or six monthly basis. This data be collated and presented to the Partnership board / the HLF monitor.

By adopting a 'traffic light system' the scheme manager will be able to alert the Board to issues as they arise. Early decision can then be made when projects score red or amber, including:

- · Reviewing the way the project is being delivered
- Allocating additional resource if necessary / justified (staff time / money)
- Reviewing targets

• Dropping a project if it is no longer delivering in line with what is required.

9.4 Mid-delivery review

During 2016 the Partnership plans to carry out a formal mid-way review of the Scheme. The purpose of this review will be to:

- Take stock of progress to date, providing a critical assessment which will be of value to funders and partners
- Tighten up the Scheme's legacy ambitions and consider in more detail how these will be delivered.
 Legacy will need to be considered at both a schemewide level and in terms of individual projects (see Section 8.0 - Scheme Legacy, above)
- Ensure delivery plans / management systems for the second half of the scheme remain fit for purpose.

At this stage (if not earlier to help with development of the M+E framework) the Partnership will appoint an independent party to conduct the Scheme evaluation. As well as supporting us in designing and carrying out the mid-delivery review (and also supporting the development of the Scheme legacy plan), the company appointed will be required to produce an interim scheme evaluation, which will:

- Confirm what has been achieved to date, identifying what has been particularly successful, difficulties which have been faced, areas where delivery has not been achieved in line with expectations, and an assessment of value for money
- Provide an assessment of the extent to which the scheme is contributing to wider HLF goals and the wider aspirations of partners and local communities (i.e. an assessment of whether the 'right' things are being done)
- Review the efficiency and effectiveness of scheme leadership and management, and of the role of the wider partnership
- Consider how the Scheme might have been managed differently during the first half of the scheme, presenting recommendations for any changes in delivery and management during the second half of the Scheme.

9.5 End of scheme evaluation

A few months before the end of the Scheme delivery period, the Partnership will appoint (or re-appoint) an independent company to carry out a full evaluation of the Scheme. The principal deliverable will be an evaluation report in line with HLF's requirements (without which the final 10% of their contribution will not be released).

Purpose

The purpose of the end of Scheme report will be to summarise what has been achieved and what has been learnt during the implementation period. Its audience will be the Heritage Lottery Fund, the Partnership Board, Partners and stakeholders. The evaluation will:

- Tell the story of the Scheme
- Examine the extent to which the vision, aims and objectives have been realised, where the original ambitions and targets have been met (or exceeded), and where (and why) there may have been a shortfall
- Present an assessment of the longer term outcomes and impacts beyond the end of the scheme, and of the plans in place to ensure this legacy is carried forward.
- Review the process of scheme delivery: how effective have the governance and project management structures been?
- What has been learnt should things have been done in a different way?

9.6 Evaluation budget

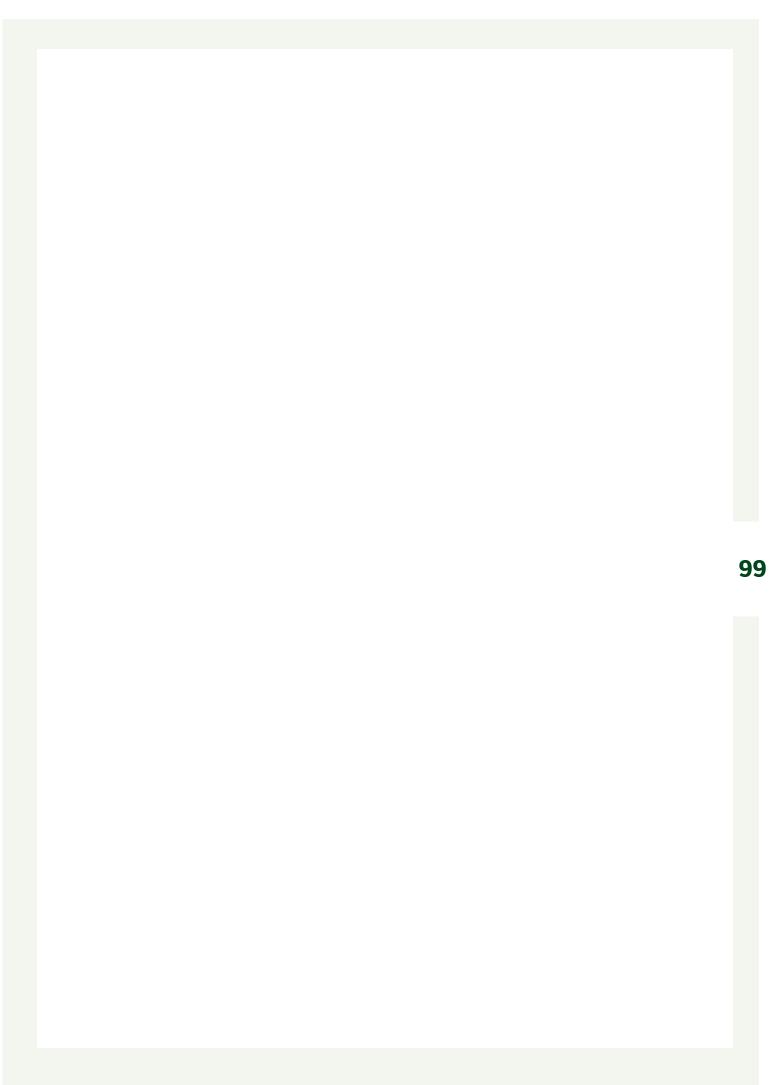
A total of \pounds 18,000 has been allocated to cover the costs of external inputs required for both the mid-term and end-of-scheme evaluation. There may be economies of scale if the same company / individual is commissioned to carry out both evaluations.

Monitoring and Evaluation Table: an example of the Monitoring and Evaluation Framework

Project	Outputs	Indicator	Outcome	Evidence
Engagement and Conservation Project.	Site is safe and welcoming to visitors	Before and after photos Formal risk assessment	Established and self- sustaining 'friends group' committed to the conservation and upkeep of the site	Friend's group formally constituted; core of committed people
	Visible elements of the original caste conserved / restored	Before and after photos	Awareness of site is raised amongst local community	Friends group intelligence, informal interviews with people visiting the site
	Interpretation provision (could include e.g. programme of visits for schools / groups, plus on-site interpretation e.g.	Record of use / photos of on-site interpretation	Local schools engaged and interested	Appraisal by teachers of the site's interest / value
Natural Heritage				
A17 Opening up Iconic Views Year 1 = Scarthin Rock	X ha / m ² scrub clearance and tree thinning	Sketch plan showing where scrub / trees are at the moment, annotated after works to show areas treated ? No. of sycamore removed	Views from Cromford to Willersley Castle	Fixed point photos from Scarthin Rock looking north, taken at outset and on ? annual basis
			Increase in ground flora	Photos before and after in May
			More people enjoy and understand what they can now see	Informal survey of people overlooking the view after the works have been completed
A5-A5B Lea Wood -Lighting Up the Flowers Project	Restoration of 4ha of ancient woodland Increase in ancient woodland indicator spp.	Absence of rhododendron (before and after photos) Botanical survey through quadrats as described in project plan	Increased in both structural and spp. diversity of under-storey Increase in associated flora: birds, invertebrates, amphibians.	Before and after photos Bird surveys Biological records
Cultural Heritage				
A20-A20B Duffield Castle: Community	XX volunteer days	Volunteer activity log	Better understanding of the site, its layout and its history	Views of professional archaeologists involved in the project

Project	Outputs	Indicator	Outcome	Evidence
A27B High Peak Junction – Wheel pit, Engine House and Crane	Wheel pit / wheel stabilised	Before / after photos. Expert opinion of structural engineer	Wheel pit / wheel no longer deemed to be 'at risk'	Assessment by English Heritage / County archaeologist
	Xx volunteer days	Volunteer activity log	Better understanding of this element of our heritage	
	Site / this feature better interpreted for visitors / schools groups	Photos of on-site interpretation / log of visits made	Volunteers trained / competent at this sort of work	Informal survey of volunteers
A21 Aqueduct Cottage	Aqueduct cottage	Photos before and after	Enhanced appearance / visitor experience	Photos Informal visitor survey
	Interpretation	Photos of on-site interpretation		
	Xx volunteer days			
A29 Slinter Mill Ponds Survey	Xx volunteer days	Volunteer activity log	Trained and motivated volunteers	
	Possible interpretation along established walking routes at Slinter Woods and the Via Gellia mill complex		Understanding of water management features. Inform any future restoration	
	Enhanced HER dataset			
A23 Field Barn Survey and Restoration	XX volunteer days	Volunteer activity log	Trained and motivated volunteers	Survey of volunteers attitudes etc.
A23 Field Barn Survey and Restoration	Restoration of XX field barns	Before and after photos of barns	Improved landscape quality / Contribute to the conservation of the character of the area	Relate back to LCA
	Enhanced HER dataset / audit of resource	Dataset approved by DCC colleagues and available on-line	Raised awareness of landscape character and benefits of conservation / Increased understanding of the value of the Lower Derwent Valley landscape, and of the need for it to be conserved and restored	Informal survey (this will be difficult to demonstrate?)

Project	Outputs	Indicator	Outcome	Evidence
A24 Drystone walls Survey	Xx volunteer days	Volunteer activity log	Trained and motivated volunteers	Survey of volunteers attitudes etc.
	Benchmark data on condition of the walls	Report completed and accessible (on web-site)	Restoration (?) of landscape character	Broad scale before and after photos
	XX farmers engaged in the work of the Scheme	Diary of project activity	Increase in local landowners awareness of resource	Record of landowner views before and after delivery
	XX m / km of restored -stock proof walls	Before and after condition survey, before and after photos	Volunteers trained / competent at this sort of work	Informal survey of volunteers
Community Participation Projects				
B2-B2B Heritage at Risk project	Benchmark data on condition of heritage assets	Updated sections of the HER	Increased skills base within the community. Volunteers able to contribute to conservation of local heritage. Increased awareness amongst volunteers, general public, landowners of issues concerning conservation of the historic environment	Informal survey of volunteers / land-owners Feedback from professionals involved in training / supervising volunteers
B19 LIDAR Survey	Flight completed Data processed and analysed	Outputs confirmed of good quality by professional archaeologist	Lidar survey incorporated into Historic Environment Record / available on-line to all	Publicly accessible website
B15B Lea and Bow Archeological Survey	Creation of a management plan for the archaeological remains to sit alongside that of the ecological resource. Enhanced HER dataset	High quality mgmt plan. Dataset approved by DCC colleagues and available on-line	Increased awareness of the potential for the presence of archaeological remains in woodland. Volunteers trained in archaeological skills.	



^{10.0} Adoption and Review

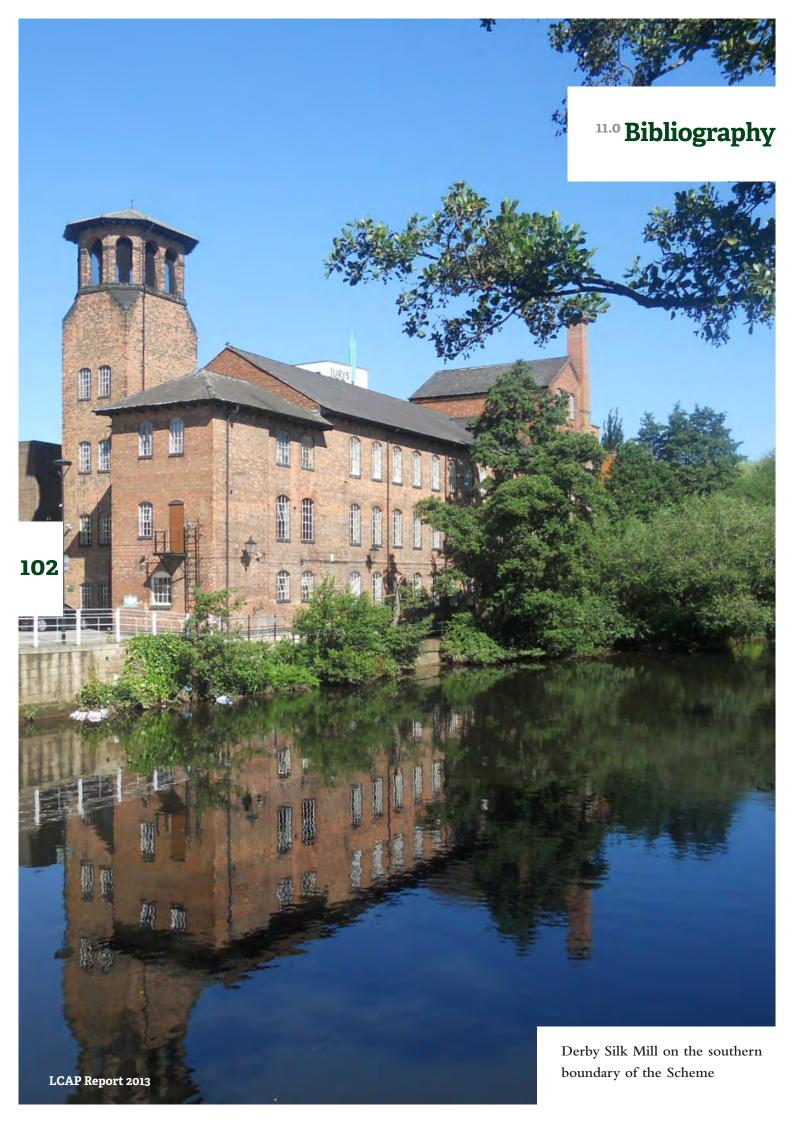
The Landscape Conservation Action Plan (LCAP) was formally adopted by the DerwentWISE Project Management Board on the 21st May 2013.

The DerwentWISE Scheme Manager will be responsible for ensuring that this document forms the basis of all the work carried out under the Scheme. The LCAP will be used as a guide and working manual by the Scheme office and Partner organisations.

This document will be reviewed on an annual basis during the lifetime of the scheme, to react to events which may occur and effect proposed projects. The review will ensure that the aims and objectives of the Scheme are still being met and project development still occurs in accordance with this.

An independent review will be undertaken within Year 5 covering all aspects of the Scheme and individual projects. It will assess the level of success and identify any difficulties which occurred.

Copies of the LCAP will be held by the Scheme office, Partner organisations and the HLF. It will be available in PDF format on the DerwentWISE website.



^{11.1} Cultural Heritage

DVMWHS Management Plan - Adopted January 2007

Nomination of the Derwent Valley Mills for inscription on the world heritage list – Derwent Valley Mills Nomination Steering Panel – 2000

DVMWHS Monitoring Views - 2009

DVMWHS Monitoring Views - 2010

Cromford Mills, Creative Cluster and World Heritage Site, Gateway Centre- Activity Plan. Second round submission to the HLF - June 2010

Cromford Canal Conservation Plan – Mansel Architects – March 2004

English Heritage in Stone - English Stone Forum 2008

The Belper Parks Project, Belper, Derbyshire, unpublished ARCUS report 1011.2 Baker, S, 2007

The Lead Legacy. The Prospects for the Peak District's Lead Mining Heritage Barnatt, J and Penny, R, 2004

The Derwent Valley Mills: Your guide to Derbyshire and the Peak District's only World Heritage Site (Matlock) DVMET, 2007

English Heritage, 2011 The Maintenance and Repair of Traditional Farm Buildings: A Guide to Good Practice

English Heritage and the Association of Local Government Archaeological Officers, 2002 Historic Environment Records, Benchmarks for Good Practice Belper Parks Project Report - Griffin, T, 2008 Duffield Castle Excavations 1957, Derbyshire Archaeological Journal, Vol. LXXIX, p1-21 Manby, TG, 1959

Bridge chapel', Derbyshire Archaeological Journal. Vol. 72, p126-130 Martell, K and Widdows, B, 1952 'Cromford

Higher Level Stewardship: The Repair and Restoration of Historic Buildings. Applicants' Guide V2.0 Natural England.

Parsons Venture Lead Smelt. Conservation Management Statement and Policy. The National Tramway Museum-March 2012

Lower Derwent Valley Geodiversity Audit, Thomas I, 2012

^{11.2}Landscape

The Landscape Character of Derbyshire – Derbyshire County Council http://www.derbyshire.gov.uk/environmant/ conservation/landscapecharacter

Duffield Frith - Mary Wiltshire / Sue Woore 1993

Willersley Castle, Cromford. Research Paper – Barry Joyce – August 2011

^{11.3} Natural heritage

Lowland Derbyshire Biodiversity Action Plan. http://www.derbyshirebiodiversity.org.uk/lbabs/lowlandderbyshire.php

Habitat Creation for Lowland Derbyshire. Derbyshire Wildlife Trust. 2002

The Lowland Grassland Management Handbook 2nd Ed. English Nature / The Wildlife Trusts. 1999

Habitat Creation Handbook for the minerals industry. RSPB 2003

Woodland for Water: Woodland measures for meeting Water Framework Directive objectives: Summary of final report from Forest Research to the Environment Agency and Forestry Commission (England) 2011 http://www.forestry.gov.uk/fr/woodlandforwater

Midlands Woodlands for Water Project: Phase 1: Opportunity Mapping Final Report Forest Research 2012

National Riparian Shade Maps for the Derwent: GIS data produced by the Environment Agency.

Lower Derwent Flood Risk Management Strategy (2009): Environment Agency http://www.environment-agency.gov.uk/homeandleisure/ floods/38465.aspx

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Meadows Beyond The Millennium, Peak District National Park Authority, 1997

The Status and Condition of Local Wildlife Sites in Derbyshire, DWT, 1984-2008

An Assessment and Audit of Grasslands of Nature Conservation Value Within The White Peak Character Area, DWT, 2012

^{11.4} Access

Visit Peak District www.visitpeakdistrict.com

Derwent Valley Way www.nationalheritagecorridor.org.uk/map Derbyshire County Council –Right of Way Improvement Plan and Statement of Action- 2007 -12 Note ROWIP 2012 -17 currently in preparation www.derbyshire.gov.uk

West Derbyshire and High Peak Greenway Strategy Draft 2012 -17 www.derbyshire.gov.uk

DVMWHS Interpretation Plan - July 2011

^{11.5} Other policy documents

Derby City Centre Regeneration Framework – Derby City – January 2012 http://www.derby.gov.uk/media/derbycitycouncil/ contentassets/documents/regenerationframework

DVMWHS Tourism Strategy - Nov 2011

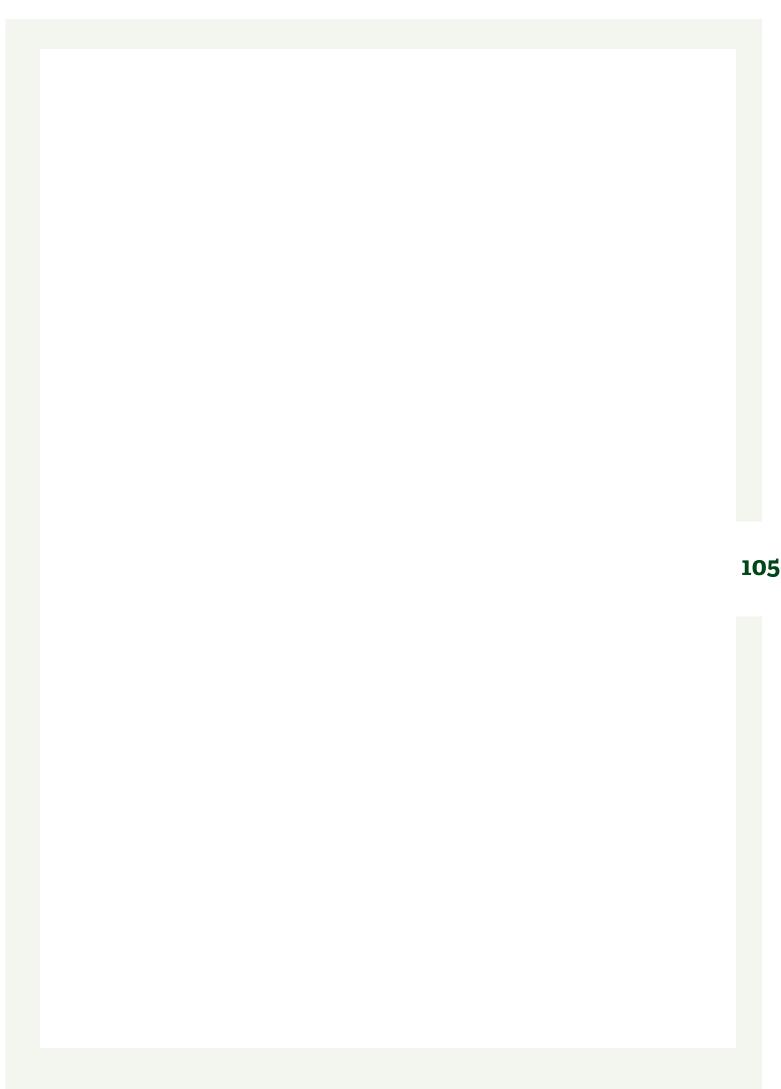
Diversity and Equality Documents: http://www.environment-agency.gov.uk/aboutus/ work/99648.aspx

Environmental Performance and Targets http://www.environment-agency.gov.uk/aboutus/ 122986.aspx

Health and Safety

Many documents including 'Health and Safety Policy Statement' on internal Environment Agency website.

Evaluating your HLF project http://legacy.hlf.og.uk/HLF/Docs/ HelpingYourapplication/evaluatingyourHLFproject.pdf



DerwentWISE

The Lower Derwent Valley Landscape Partnership Scheme

Derbyshire Wildlife Trust, East Mill, Bridge Foot, Belper, Derbyshire, DE56 1XH

For more information contact the DWT office: Telephone 01773 881188 or email enquiries@derbyshirewt.co.uk

www.derbyshirewildlifetrust.org.uk