FOREST OF BOWLAND
Area of Outstanding Natural Beauty

FOREST OF BOWLAND

Pendle Hill Landscape Conservation Action Plan: Part 1

heritage lottery fund
LOTTERY FUNDED

CONTENTS

EXECUTIVE SUMMARY

Not quite a mountain, yet much more than 'just a hill': a beloved and familiar backdrop to the lives of local people, a destination for many thousands of visitors in search of fresh air, walks, great food and of course, the witches… Pendle Hill is an icon of the Lancashire landscape.

Nationally protected as an outlier to the Forest of Bowland Area of Outstanding Natural Beauty (AONB), it is a place with a character and qualities quite distinct from its surroundings. A kingdom of its own and to some a place of escape, adventure, 'old ways' and traditions, myths and stories. A destination that trades off its rich heritage, wildlife, fantastic scenery and bustling events. A place where you can 'touch the sky', reawaken your senses and be inspired. Much more than just a hill.

It's a place of duality: a hill with two different sides composed of different geologies, histories, communities, economies and 'sense of place' – and there is tremendous potential to capitalise on these disparities, to make play of friendly rivalries and gather both sides of the Hill together in new and meaningful ways.

It's also a place of untold stories in need of new owners and celebration. The famous Witches are omnipresent and while the world is still a place of persecution, the lesser known tales of the Pendle Radicals are arguably more relevant and inspiring to people today: the Quaker movement, the Independent Labour Party and numerous religious non-conformists. All of them were inspired by Pendle Hill to see the world differently – and moreover, to realise their visions with the help of others, through action. It's hard to imagine a more fitting theme for the Landscape Partnership and its ambition to have a positive impact on local communities, some of which are amongst the 10% most deprived neighbourhoods in the UK.

And then there is the landscape itself. Sculpted by ice from nationally important geology (designated as Sites of Special Scientific Interest) and supporting a wealth of habitats - peat bogs, heather moorland, woodland and grassland - each in turn supporting a diversity of wildlife and providing valuable ecosystem services, including assets for tourism and health and wellbeing.

A sometimes challenging environment that has attracted settlers since the Bronze Age, whose activities (notably farming and mining) have forged the character of the landscape that is treasured and stewarded by people today.

The Pendle Hill Landscape Partnership Scheme (LPS) is a programme of activity that seeks to re-connect its many people (residents, neighbours and visitors) with their past and their landscape, to safeguard wildlife and heritage and improve people's access - both physically and intellectually - to what is a nationally protected area.

Led by the Forest of Bowland AONB and supported by the Heritage Lottery Fund, the Scheme will provide opportunities for training and volunteering; restore important landscape features; support research and develop innovative interpretation to inspire a new generation about heritage - all underpinned by the support of local and neighbouring communities.

The Scheme will be delivered through more than a dozen individual projects, many of them involving a creative 'Gathering' that will help to bring people together from both sides of the Hill, build cohesion, facilitate dialogue and create shared points of view. Project themes include:

Environment: creating and repairing traditional boundaries: our iconic dry stone walls and hedgerows; improving the management and extent of wildlife sites; improving and extending our woodlands; and restoring the Summit of Pendle Hill.

Economy: strategic development of visitor hubs (reducing environmental pressures and impacts); improving access for everyone by promoting all ability routes; offering apprenticeships for young people in traditional skills; supporting the development of sustainable tourism; and researching the value of Pendle Hill's ecosystem services.

Everyone: supporting local groups to develop the skills to undertake their own archaeology projects; creatively exploring Pendle's Radical history; delivering training, education and events; linking people dealing with mental health issues to outdoor opportunities to improve their wellbeing; and managing the Pendle Hill Fund to support community-led projects focusing on heritage, landscape and the environment.

Threads: these cross cutting projects will support volunteers and learning; deliver creative 'Gatherings' to explore and interpret the landscape and engage new audiences; and develop interpretation materials based on the area's sense of place and 'destination brand', including use of digital media to engage new and wider audiences.

CHAPTER 1. INTRODUCTION

1. Introduction

This Landscape Conservation Action Plan is the guiding resource for the Pendle Hill Landscape Partnership scheme. It draws together the research, consultation and planning that has been taking place since 2014 under the leadership of the Forest of Bowland Area of Outstanding Natural Beauty (AONB). The Plan will guide four years of delivery of an ambitious and exciting Heritage Lottery Funded scheme which aims to bring town and country people together to understand, restore and celebrate the distinctive landscape and heritage of this much loved and inspiring place: Pendle Hill.

1.1 Location

Pendle Hill is located in the south eastern corner of Lancashire. Although at 557m it is not the tallest hill in the area, it is certainly the most dominant. Its proximity to the post-industrial towns of Pennine Lancashire, and the market towns of Clitheroe and Gisburn provides an ever present backdrop to the lives of over 250,000 neighbouring residents, and also for the thousands of people who travel through the region crossing between Lancashire and Yorkshire. The Hill provides people with a 'green lung' and a reminder of the times when we were all more connected to the land.

More than half of the 124 square kilometres of Landscape Partnership area is included in the Forest of Bowland AONB designation. It was included as an outlier to the main AONB area because of its natural beauty and landscape quality. The lower slopes of the Hill, outside of the AONB, are more intensively farmed and do not have the remote and rugged qualities of the moorland. However they are included in the LP area as they make up a much more complete landscape and one with a recognisable sense of place, based not only on the area's appearance but also on its history and culture.

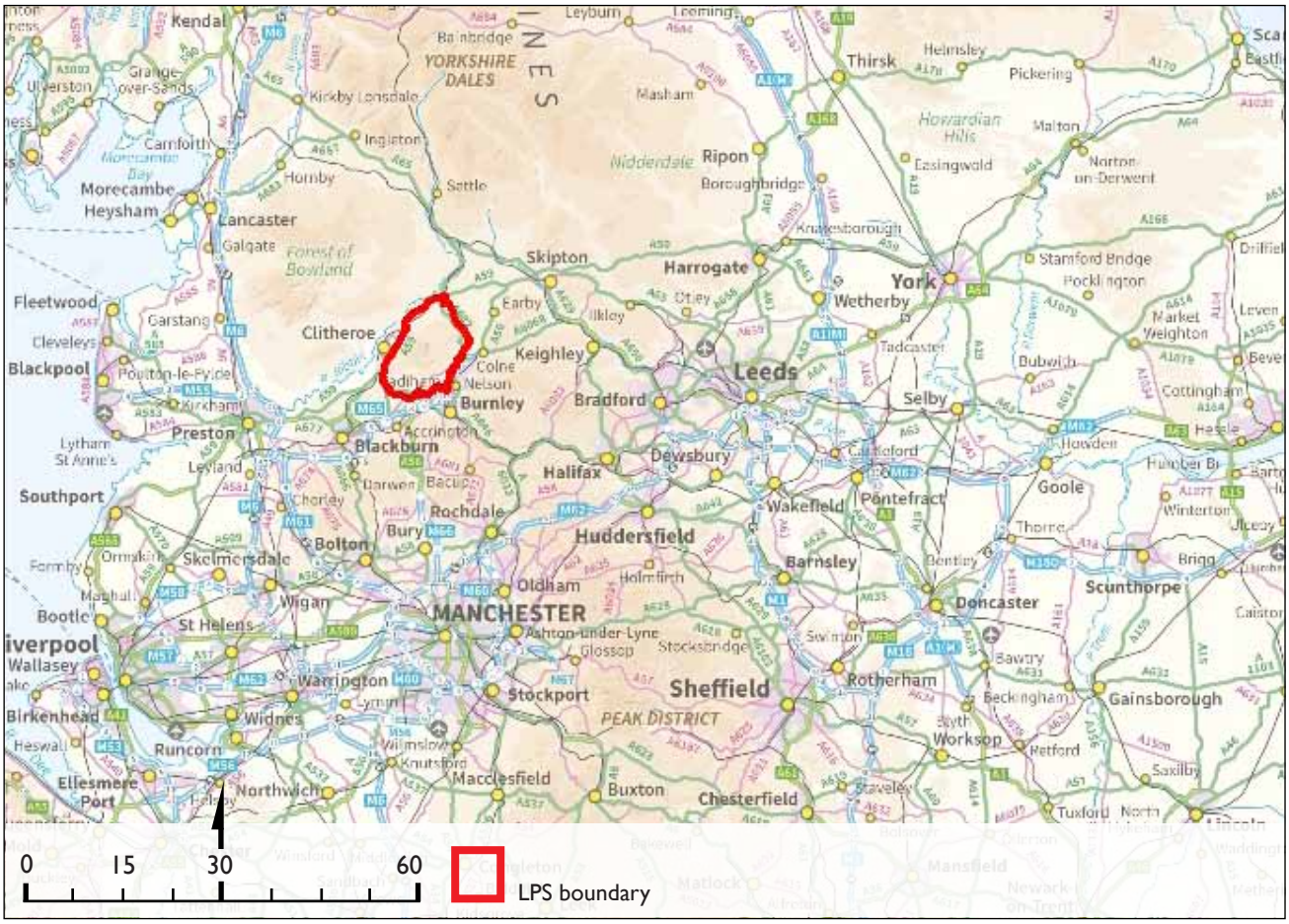
1.2 Partnership

The Forest of Bowland AONB was designated back in 1964. Its main purpose is to conserve and enhance the landscape, and since the 1980s it has done this through the preparation and delivery of a Management Plan, and with the support of the AONB Unit. The AONB partnership is made up of the statutory environmental bodies, plus the eight local authorities which make up the AONB area, including the County Councils from North Yorkshire and Lancashire (the lead body) and the six districts and boroughs, including Pendle and Ribble Valley which make up the Pendle Hill LP area.

In the late 1990s the AONB set up a Pendle Hill Advisory Group to deal with a number of issues developing in the outlier area. The Advisory Group was made up of key landowners, countryside staff and local authorities and it was successful in dealing with issues such as unlicensed vendors, 'Halloween mischief' and liaison with key user groups such as fell running competitions and paragliding clubs. The Advisory Group also set up the Pendle Hill Fund which received income from user groups and allocated it to key footpath and boundary restoration projects, delivered largely by the AONB Unit.

In 2014, when the AONB decided to develop a Landscape Partnership for Pendle Hill, the Advisory Group agreed to form the core of the Partnership Board and to expand membership to include more community representation. They also agreed to provide match funds to the scheme from the nascent Pendle Hill Fund.

The Pendle Hill landscape has its own importance, and can be seen as a series of layers which together make up a distinctive character.



Map showing the Pendle Hill Landscape Partership Area in the North West

Admiring the view

CHAPTER 2. VISION, AIMS & OBJECTIVES

2.1 Vision, Aims and Objectives

This is the stated vision of the Pendle Hill Landscape Partnership:

A landmark of Pennine Lancashire, this iconic hill will become a focus for bringing town and country people together to understand, restore and celebrate the distinctive landscape and heritage of this much loved and inspiring place.

2.2 Scheme Aims

A. To restore, enhance and conserve the heritage and landscape quality of Pendle Hill

B. To re-connect people with the landscape

C. To re-connect people and the past

D. To bring together the two sides of the Hill

E. To create a sustainable future for the environment, heritage and for visitors' experience of Pendle Hill

2.3 Scheme Objectives

1. To better manage and increase the species diversity of natural habitats at a landscape scale
2. To reduce the risk of flooding through the use of natural flood management measures
3. To provide opportunities for volunteering and engagement in the environment
4. To increase knowledge, skills and opportunities for employment in the heritage sector
5. To restore and celebrate distinctive heritage features of Pendle Hill
6. To connect a wide range of people and local communities with their heritage and landscape
7. To develop a unique sense of place to help bring the two sides of the Hill together
8. To increase understanding of the value of a high quality landscape and the benefits it can deliver
9. To improve the physical and cultural access to Pendle Hill
10. To implement the programme through a creative, sustainable and inclusive approach

2.4 Partnership Values

The Pendle Hill LPS has developed over a long period of time, with a year spent preparing the stage one application, and a further 18 months in a funded development phase preparing the stage two application, including this LCAP, which is submitted in September 2017. In this time the staff and partnership has been embedded in the area and generated a high level of awareness, consultation and support amongst the resident and neighbouring communities.

The programme has very similar values to that of the AONB in that it has a focus on conserving and enhancing the natural and historic landscape, whilst delivering projects of a holistic nature. It also operates in a very consultative manner, ensuring that stakeholders are engaged and listened to throughout the process. Sustainable development is also prominent – the AONB has a strong track record in supporting local businesses, community facilities, producers and contractors. We also procure suppliers of recycled and locally sourced materials in an effort to reduce our carbon footprint and food miles.

Our programme intends to provide many opportunities for creative engagement, experimentation and expression via a series of exciting artists commissions, 'the Gatherings'. These will create new ways of interpreting the landscape, its history and people, and will encourage engagement with new audiences.

The Pendle Hill scheme offers us a major opportunity to develop new audiences for the LP area, and our plan is to engage with many more, and a wider variety of, people: some of whom have not had the opportunity to explore, engage with and enjoy the area despite living within sight of the Hill. We are putting a particular emphasis on supporting people dealing with issues around mental health and social isolation, and exploring the impact that countryside and heritage experiences can have on their health and wellbeing.

Pendle Hill has two very different sides, both physically and in socio-economic terms and it is our intention to gather together the two sides in our activities. We will do this by providing opportunities to share knowledge and experience, to explore the wider area and to celebrate the local distinctiveness of the area together.

Creative consultation work undertaken in the development phase © (AONB)

2.5 Development and Consultation

In the summer of 2014, the AONB led a series of workshops and meetings with local stakeholders to identify the key heritage assets of the area and to identify the main threats to these assets. These workshops were attended by over 40 people from parish councils, history groups, environmental bodies and council departments and focussed on cultural heritage, built heritage, natural heritage and tourism and recreation. The information from these discussions was added to the existing AONB landscape character assessment for landscape areas within the Pendle Hill LP boundary, and the following threats to our heritage began to emerge:

1. Loss of landscape features and species diversity
2. Erosion, conflict and congestion caused by visitor numbers
3. People losing touch with the past
4. People losing touch with the landscape
5. Reduced finance for recreation, heritage and wildlife conservation

A number of consultative 'Gatherings' were held during the application and development stage. These meetings were held around the LP area and included presentations, exhibitions and activities open to the general public and stakeholders. Meetings were held in May 2015, October 2016, and April 2017 with 40-50 people attending each event.

Several of the projects convened or utilised existing working groups during the development phase, or consulted with specific interest groups – eg the Archaeology research included a forum of local history groups; the Traditional Boundaries project convened a working group and the AONB Biodiversity Working Group advised the natural heritage projects.
The audience development planning carried out by In-Situ Arts (see below) included analysis of recent creative practice – Fields on Prescription and the River Project with Mums2Mums – as well as with a large number of interest and focus groups, particularly from the neighbouring communities and 'hard to reach' groups.

Between October 2016 and September 2017 the LP employed an Assistant Development Officer who focussed on community engagement activity. This included setting up and running the Pendle Hill Volunteers, meeting at least twice each month to carry out a range of surveys, boundary restoration and conservation projects. It also included organising and delivering the pilot PEN project (People Enjoying Nature) in partnership with NHS Community Restart and a number of their clients who were dealing with mental health and social isolation issues. This pilot was run to test out approaches and attitudes, and also to meet demand from the service users who were keen to get started!

During the development stage, a number of reports and action plans were produced to support the development of projects and the overall programme. These were as follows:

Audience Development Plan & Toolkit
In-Situ Arts
Landscape Character Assessment
Robin Gray
Communications Strategy
Countryscape
Interpretation Plan
Countryscape
Visitor Management Plan
Fourth Street & Heritage Naturally
Habitat and Boundary Surveys and Action Plans
Rigby Jerram
Geodiversity Action Plan
GeoLancashire
Volunteer Toolkit
Burnley, Pendle & Rossendale CVS with Hyndburn & Ribble Valley CVS
Tourism Scoping Report
RJS Associates Ltd
Report on the PEN Pilot, 2017
Jayne Ashe, Pendle Hill LPS
Monitoring and Evaluation Framework
Countryside Training Partnership

Rigby Jerram undertaking habitat survey work © Margaret Wright

During the development phase a number of changes to the original projects have taken place. These have been due to loss of staff support (eg Lancashire County Council reduction of libraries and museums staff), a lack of experience in voluntary groups, further discussion and consultation, reductions in funding opportunities and changing priorities. The key changes are detailed in Part 4 of the LCAP.

2.6 Structure of the LCAP

The Landscape Conservation Action Plan is the key document guiding the delivery of the Pendle Hill Landscape Partnership scheme. It is set out as follows:

Part 1 – Introduction and background: this document outlines the story of the Pendle Hill Landscape Partnership, the Partnership's visions and aims, the importance and sense of place of the area and the origins of its landscape character. It also identifies the threats, risks and opportunities that this unique landscape faces.

Part 2 – The scheme plan outlines what will be delivered to protect enhance and celebrate the area's heritage. It includes a series of non-technical project summaries.

Part 3 – Full project plans: working documents for each project with detailed key actions and planned outcomes and outputs.

Part 4 – Scheme delivery: this outlines how the scheme will be managed and it includes details about finances, outputs and outcomes, the staffing structure, a timetable for scheme activity, our plans for legacy and management of risks.

CHAPTER 3. WHAT MAKES PENDLE HILL SPECIAL? OUR SENSE OF PLACE

3.1. Introduction

Pendle Hill is the distinctive outlier to the Bowland Fells and the AONB. It forms the backdrop to the Pennine Lancashire former textile towns of Burnley, Nelson and Colne; and also to the historic market towns of Clitheroe, Gisburn and Whalley. Yet despite its proximity to significant urban populations, it is surprisingly rural both on its eastern and western escarpments and it has a real sense of remoteness on the moorland plateau.

Human influences have had an impact on this landscape whether that is as the medieval Forest of Pendle, the enclosures of the 17th, 18th and 19th centuries, early industrial activity or the designed parkland landscapes of Read and Huntroyde.

For much of its history the hill was not just physically marginal but also politically and economically challenging. The area was always peripheral to the historic centres of power, and was very much a frontier zone: defended by the Romans, contested by the Anglo Saxons and the Vikings and even invaded by the Scots. Later it became part of the birthplace of the Industrial Revolution, with the Hill itself becoming a place of recreation for hardworking mill workers and families – a tradition that is weakened, but which still remains today. Pendle also sheltered the radical thinkers, protestors, and dissenters.

Apart from the infamous Pendle witches, who were in fact poor Catholic women struggling to make a living in a Protestant regime, the area was also the birthplace of the Quakers and supported numerous non-conformist sects, as well as rural and urban based trades unions and political radicals.

3.2 Landscape

Pendle Hill's distinctive profile (although a different profile is shown, and known, on either side of the Hill) dominates the neighbouring urban areas.

The LP area consists of the Hill itself plus the foothills and lowland radiating both northwest and south east descending towards the Ribble and Calder rivers, and covering a total of 124 square kilometres. The Landscape Character Assessment identifies eight different landscape types, radiating out in rough concentric circles from the high Moorland Plateau through Enclosed and Unenclosed Moorland Hills, via Moorland Fringe to Undulating Lowlands. In between there are a few smaller areas of Forestry and Reservoir (where 20th century man-made features dominate) and to the south east lies a linear Farmed Ridge which then descends to the Industrial Foothills and Valleys.

Defended by the Romans, contested by the Anglo Saxons and the Vikings and even invaded by the Scots.

Cartoon by Peter Rigg, courtesy of Pendle Borough Council

3.3 Geology

Pendle Hill is special geologically because it straddles the junction between older limestones to the north and west and younger gritstones to the south and east. These rocks are the result of tropical seas, mountain building and continental collisions during the Carboniferous period, from about 350 million years ago until about 300 million years ago. Earth movements during and after the deposition of the rocks created a suite of rocks dipping to the south east. On the Burnley side of Pendle Hill the surface topography follows the dip of the beds, largely exposing the Millstone Grit; while the north and west side presents an escarpment revealing strata of different ages, with the lower slopes underlain with Carboniferous Limestone.

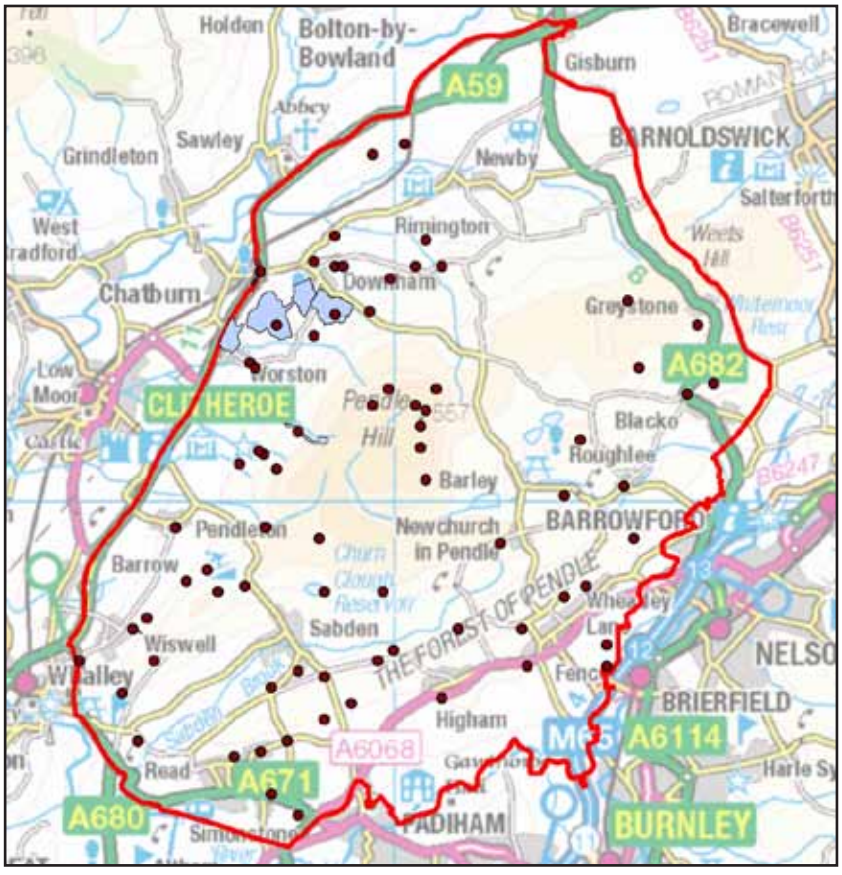
The different geology of the two sides of the Hill has greatly influenced the subsequent development of vegetation and farming types and tenure, thus leading to very different density and style of human settlement. Geology has also created economically important resources for the area, including lime, coal, lead and stone – many of which were exploited in the centuries leading up to, as well as during, the industrial revolution.

There are three local Geodiversity Sites (of County significance), and three geological Sites of Special Scientific Interest, which are of national importance, within the Pendle Hill LP area.

Light Clough SSSI near Wiswell is recognised as the standard for the base of the Upper Carboniferous and as such is of international importance; whilst Little Mearley Clough SSSI also exhibits the entire subdivision of the oldest Namurian gritstones which lie conformably on Lower Carboniferous strata, see table below. They are actually named after the Hill – the Pendelian Stage. The third SSSI is Clitheroe knoll reefs, an area of 'Walsourtian mudmounds' deposited in warm tropical seas during the Lower Carboniferous period, and now supporting a rich calcareous grassland.

Chart showing the Pendleian sub stage of Geological Time

PERIOD	EPOCH	STAGE	SUB STAGES	AGE (in millions of years)
PERMIAN	Cisuralian	Autonion		younger
CARBONIFEROUS	Silesian or Upper Carboniferous	Stephanian		305 - 300
		Westphalion	Bolosovian Duckmanthian Langesttian	316.5 - 305
		Namurian	Yeadonian Marsdenian Kinderscoutian **Pendleian**	326.4 - 316.5
	Dinantian or Lower Carboniferous	Visean		346.7 - 316.5
		Tournaisian		358.9 - 346.7
DEVONIAN	Upper Devonian	Fammenian		older



Pendle LP geo sites Pendle SSSI LPS boundary

Map showing the sites of geological interest and the geological SSSI sites in the Pendle Hill LP area

N 0 1 2 4 Kilometers

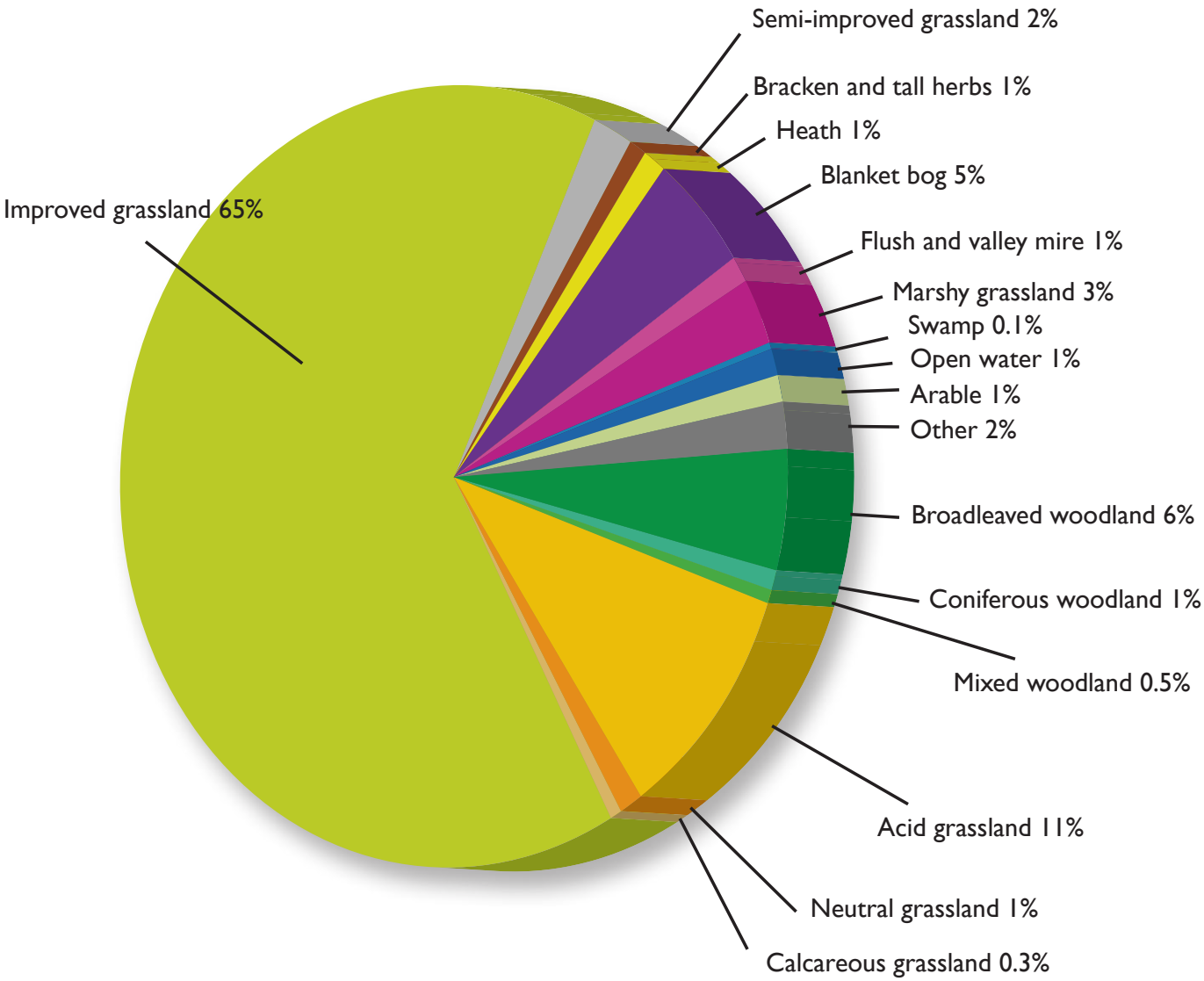
3.4 Biodiversity and Habitats

A Phase 1 survey carried out in the LP area in 2016 discovered and mapped the following habitats:

The area supports valuable blanket bog, upland heath, calcareous grassland and deciduous woodland. Wildlife of key interest for the area includes wading birds (particularly Lapwing, Redshank and Curlew), woodland birds (Pied and Spotted Flycatchers) and Starlings and Swifts in the villages.

The LP includes 60 locally important wildlife sites (called Biological Heritage Sites in Lancashire) covering 2043 hectares or 17% of the total area. See appendix 1 for a full list and description of the BHS present.

Relative proportions of main habitat types



Pendle Hill – the name tells us of its significance to human settlement over time: 'Pen' is the Celtic word for 'hill' as is the later 'dun or dhul' from Saxon times, and our modern day appendage means we name it thrice: 'hill, hill, hill!'

Ogden Clough

3.5 Archaeology and Early History

The area has seen human occupation over the past 12,000 years, beginning with Mesolithic groups of hunter gatherers moving through the pine forests, hunting red deer and working local chert into sharp tools. There is some limited evidence of Neolithic activity in the area as Grimstone Ware pottery was discovered at the defensive Portfield camp lying on high ground overlooking the important Whalley Gap. Bronze Age settlers too appear to have venerated the Hill, siting a string of Bronze Age burials along its spine and from nearby positions pointing to the ridge. The late Bronze Age/early Iron Age encampment at Portfield is the key Scheduled site within the LP area.

Sections of the Roman road running from Ribchester to York appear along the north west side of the Hill, and we also have sites linked to Saxon and Viking activity. The Norman period however had the biggest impact on the landscape when major families were given rights to hunt the Royal Forest and Chase of Pendle, followed by their later subdivision into vaccaries and manorial farmsteads.

The LP area includes 4 scheduled ancient monuments see appendix 2

3.6 Built Heritage

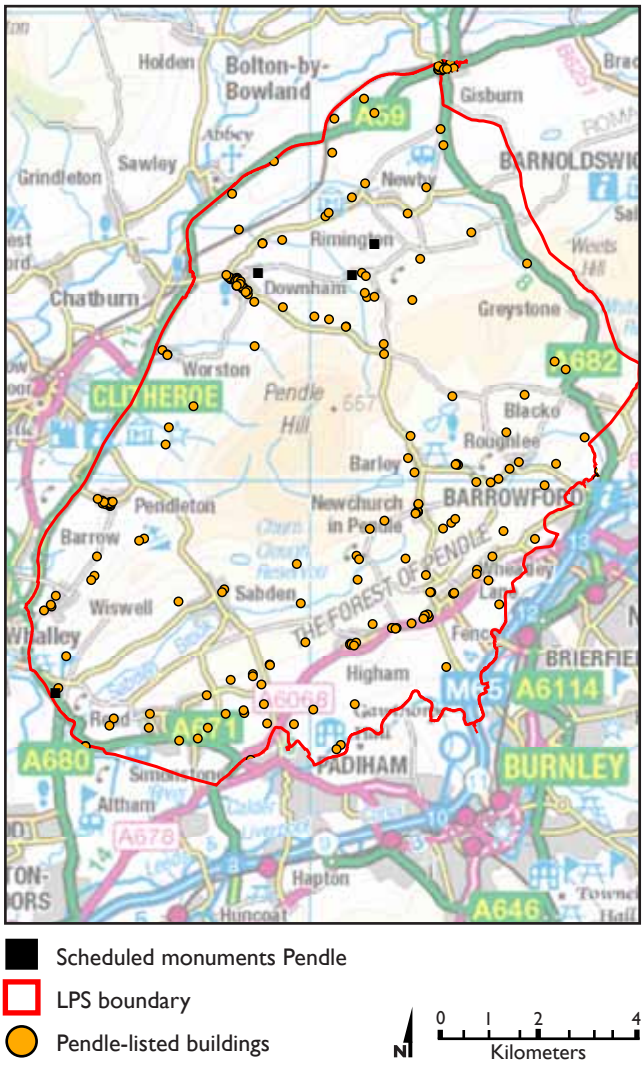
Maybe the largest example of built heritage visible on the Hill is the network of dry stone walls, tracing the contours, ownership and history of the land. The earliest appeared in medieval times, outlining the huge cattle ranches or vaccaries built for the Norman de Lacy family who managed the area from their powerbase in Pontefract. Enclosures continued to take in and improve land from the 'wastes' of moorland and commons from the 14th century well into the 19th century – marking out deer parks, farmland and the designed parklands at Downham, Read and Huntroyde. The latter also had built decorative features including 'hahas', eye catchers, gateways, estate yards and gardens surrounding grand halls – not all of which remain intact today.

Enclosure patterns differ on the two sides of the Hill. The eastern side became more subdivided as wealthy copyholders of the Forest of Pendle sub-let their land in the 16th century, whilst in the west landed estates retained their land ownership as part of the Honor of Clitheroe, with larger fields and parkland.

The LP area has eight Grade I and II listed buildings at Downham village: Halls at Little Mearley, Great Sabden and Read, the church of St Mary the Virgin in Newchurch, and over a hundred more 17th and 18th century farms, barns and manor houses.

Vernacular architecture reflects the strengths and weaknesses of local stone (limestone, gritstone or river cobbles) and the favoured building style is traditional laithe farmhouses with adjoining barns.

Map showing the listed buildings in the Pendle Hill LP area



A laithe style farmhouse

An illustration of the Pendle Witches by Srirat Jongsanduandi

3.7 Cultural, Inspirational and Spiritual Value

Pendle is famous for its witches. In the early 17th century, the area was remote and under-serviced by the church. Catholicism was outlawed and underground, and King James I was leading a witch hunt. The story of the events leading up to the trial and hanging of eleven unfortunate men and women from Pendle Hill in 1612 was told at the time by the trial clerk Thomas Potts, and became infamous in Victorian times as told in The Lancashire Witches by William Harrison Ainsworth. The 1951 novel by Robert Neill, Mist over Pendle, added to the area's notoriety. However, anniversary events in 2012 helped to draw the truth out of the romanticised story.

Just forty years after the trial, in 1652, the Hill had another significant event. George Fox, a religious dissenter was visiting the area and described his experience:

> "As we travelled we came near a very great hill, called Pendle Hill, and I was moved of the Lord to go up to the top of it; which I did with difficulty, it was so very steep and high. When I was come to the top, I saw the sea bordering upon Lancashire. From the top of this hill the Lord let me see in what places he had a great people to be gathered. As I went down, I found a spring of water in the side of the Hill, with which I refreshed myself, having eaten or drunk but little for several days before."

This epiphany led Fox to set up his Religious Society of Friends popularly known as the Quakers: so called because Fox supposedly told a magistrate to "tremble at the word of the Lord" – Fox himself was imprisoned at least ten times for dissent.

Pendle Hill, possibly still seen as a remote and lawless place as late as the middle of the 19th century, hosted a great many other dissenting preachers – Wesley, Ingham, Jolley and others – as well as early workers' rights movements such as the Chartists and Free Traders, and later the Independent Labour Party and suffragettes. These radical thinkers, inspired and sheltered by Pendle Hill, left their mark on the world.

A sketch of George Fox

Clarion House

3.8 Recreation and Tourism

A hill – especially one so prominent and dominant in the locality as Pendle - always attracts people. George Fox felt drawn to ascend it, as had the Bronze Age people 4000 years ago. During the 18th and 19th centuries many people left the land to live in neighbouring mill towns, but they would return and visit on 'high days and holidays' with an annual pilgrimage up the Hill on Good Friday, often with egg rolling; and charabanc trips were a regular occurrence. The area around Roughlee became known as 'Happy Valley' with its swing-boats and other amusements. Pubs, teashops and the Clarion House catered for walkers who would happily trek the 6 or 10 mile round trip out of town for fresh air and respite; cyclists would visit for the day from Manchester, Bolton and Bradford. Small colonies of huts and vans grew up at two campsites in the valley (one called Palm Beach!) and acted as weekend retreats for many mill town families, but they were demolished in the 1960s to make room for the current caravan or holiday home parks.

This tradition continues today, although most of our 700,000 annual visitors now come by car. Many will enjoy a gentle stroll followed by a pint or a brew; others come to partake of the excellent local food and drink; some (we estimate 300,000 a year) will climb Pendle Hill itself; and sports enthusiasts come to seek challenging fell runs, steep cycle climbs and paragliding thrills.

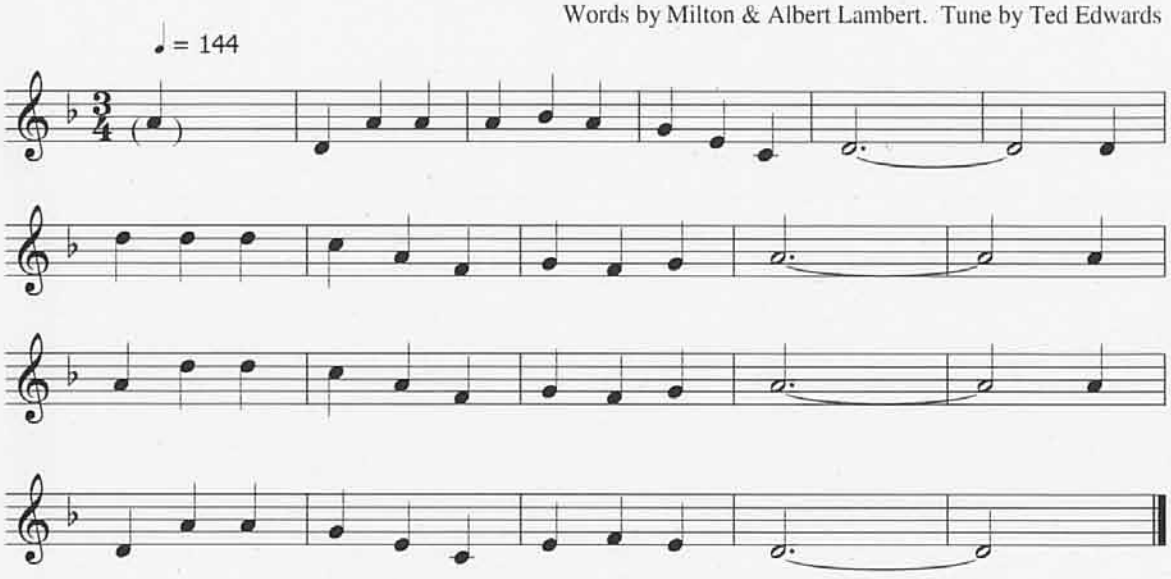
Downham © Charlie Hedley

Many will enjoy a gentle stroll followed by a pint or a brew; others come to partake of the excellent local food and drink; some (we estimate 300,000 a year) will climb Pendle Hill itself

Old Pendle

1

Words by Milton & Albert Lambert. Tune by Ted Edwards



Pendle, old Pendle, thou standest alone.
Twixt Burnley and Clitheroe, Whalley and Colne,
Where Hodder and Ribble's fair waters do meet
With Barley and Downham content at thy feet.

Pendle, old Pendle, majestic, sublime
Thy praises shall ring till the end of all time
Thy beauty eternal, thy banner unfurled,
Th'art dearest and grandest old hill in the world

Chorus:

When witches fly out on a dark rainy night,
We'll not tell a soul, and we'll bar the door tight,
We'll sit near to t' fire, and keep ourselves warm
Until once again we can walk on thy arm.

Chorus:

Pendle, old Pendle, by moorland and fell
In glory and loveliness, ever to dwell
On life's faithful journey, where e'er I may be,
I'll pause in my labours, and oft think of thee.

Chorus:

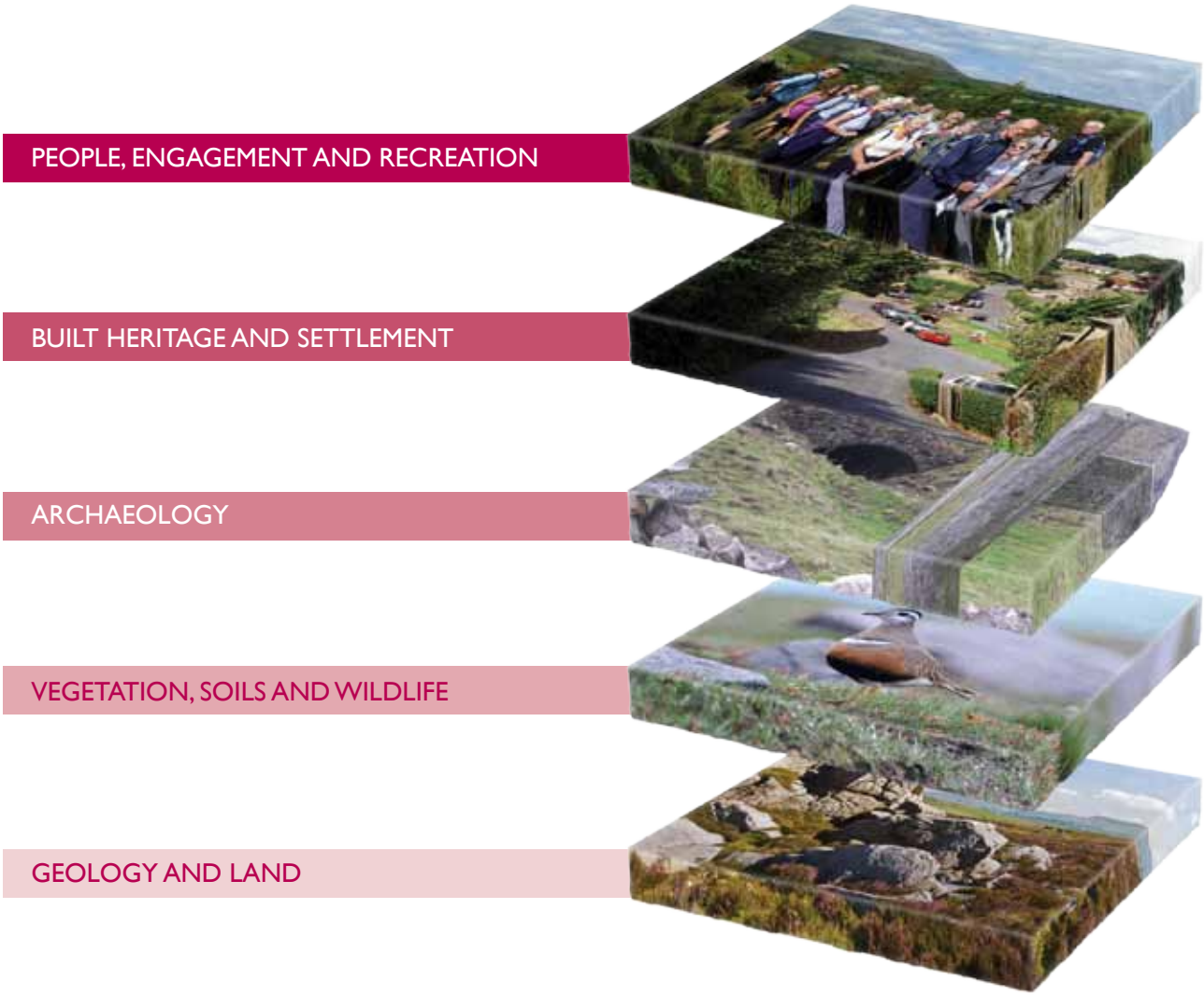
CHAPTER 4. UNDERSTANDING PENDLE HILL

4.1 The Meaning Of Landscape

"Landscape: from the Anglo Saxon - Land (a space with boundaries) scape (a composition of similar objects)."

"Landscape: an area, as perceived by people, whose character is the result of the action, and interaction, of natural and / or human factors." (European Landscape Convention)

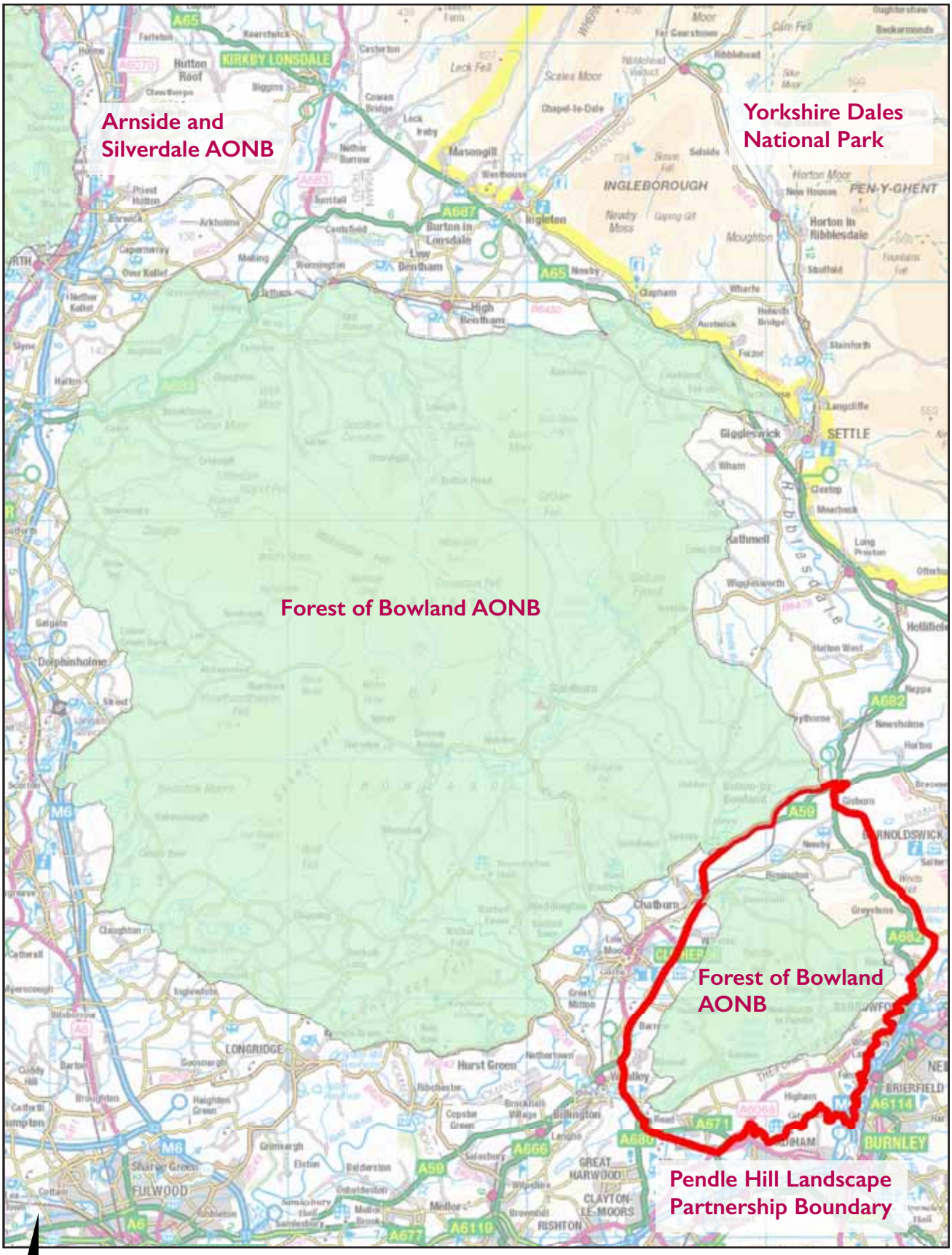
The Pendle Hill landscape has its own importance, and can be seen as a series of layers which together make up a distinctive character.



4.2 Context and Location

The Pendle Hill Landscape Partnership area is centred on the outlier of the Forest of Bowland Area of Outstanding Natural Beauty, which in total covers 800 square kilometres of Lancashire and North Yorkshire.

Although separated by Clitheroe and the Ribble, the 90 square kilometre outlier is physically connected to the large mass of the Bowland Fells: it is based on the same geology and linked to the northern Pennine chain, and sculpted by the same ice and water. However, Pendle Hill is distinct and different from the rest of Bowland: it is less remote, it is closely linked to the nearby urban areas and is more heavily used by those residents.



Map showing AONB and National Park Map showing the Forest of Bowland Area of Outstanding Natural Beauty

The AONB status is a protected landscape, yet this designation brings very little additional investment to the area. The Landscape Partnership approach is vital to making a real difference to the area and its heritage which is under threat from agricultural intensification; urban development; reductions in local government spending; and changing cultural attitudes leading to a loss of connection between people and the landscape and their past.

The LP area, a total of 124 square kilometres, is divided between two very different local authority areas, Pendle and Ribble Valley, and wholly within the county of Lancashire. The differences in population are shown below (data from Lancashire Insight & Public Health England) and explained further below (4.12)

4.3 Policy Background

4.3.1 AONB Management Plan

The Forest of Bowland AONB has a statutory duty to produce a Management Plan setting out objectives and actions for a five year period. The current plan (2014-19) has four primary objectives:

1. **An Outstanding Landscape of Natural and Cultural Heritage**
2. **Resilient and Sustainable Communities**
3. **A Strong Connection between People and the Landscape**
4. **Working in Partnership**

These objectives and their numerous actions are intended to be delivered by the AONB Partners: made up of the statutory and funding partners, plus voluntary and community organisations, farmers, landowners and businesses. Many of the objectives relate directly to the LP area and will be delivered via this LCAP and our planned activity. The next Management Plan is to be prepared during the lifetime of the LP scheme and will incorporate emerging issues, lessons learned and actions identified from the research and development undertaken for, and early delivery of, the Pendle Hill LP.

4.3.2 European Policy Framework

The raft of environmental and habitat directives adopted from European legislation will hopefully be maintained post-Brexit, and help to secure a future for the SSSI designation in the LP area. We also anxiously await new announcements on future agri-environmental and rural development support once European funds have ceased being distributed in the UK.

4.3.3 UK Policy

The Natural Choice: securing the value of nature White Paper contains the UK Government's vision for the natural environment over the next 50 years. Many of its key themes, such as 'Protecting and improving our natural environment' and 'Reconnecting people and nature' are also reflected in the Landscape Partnership's objectives.

The wildlife habitat enhancement projects that will be delivered as part of the Landscape Partnership align with the priorities.

	Pendle	**Ribble Valley**
Total population (2015)	89,452	57,132
BAME population	18,000	1,228
House price to earnings ratio (England 7.49)	3.96	7.38
Houses in fuel poverty	14%	11.6%
Median gross weekly earnings (2016)	£417.70	£439.80
%age of working age population reliant on benefits	14.3	6.8
Average life expectancy at birth (2014)	81.5 (Female) 77.8 (Male)	83 (Female) 81 (Male)
%age of population with long term health problem or disability (2011)	20.9	16.7
%age of physically active adults (2015)	59.4	48.2
%age of year 6 children classified as obese (2015/16)	20.2	18.1
%age pupils achieving 5 or more A*-C grade at GCSE (2014/15)	48.3	74.2
Rank in English Indices of Deprivation (out of 326) 2015	42nd (5th in country)	290th (lowest in country)

4.3.4 Local Nature Partnerships

The AONB is a member of the Northern Upland Chain LNP and as such has a number of common issues with these other protected upland landscapes, including the issues facing hill sheep farmers, the need for peatland and meadow restoration, and species protection action for the hen harrier, curlew and black grouse. Lessons learnt by this partnership and activity undertaken will feed into the Pendle Hill LP and provide advice, sustainability, and influence for our activity, especially in terms of alternative solutions to agri-environment payments and the valuing of natural capital.

4.4 Defining the LP boundary

The original landscape designation in 1964 of the AONB and including the Pendle outlier avoids some of the valleys and landscapes associated with the Hill. Some notable communities in the shadow of the Hill were also excluded from the landscape designation (Rimington, Pendleton, Wiswell and Higham).

Having decided to draw in the wider apron of landscapes that radiate from Pendle Hill for the purposes of the Landscape Partnership, there is a need to say how wide the project boundary should be drawn. After all, Pendle Hill can be seen from as far afield as Rossendale and the Three Peaks in the Yorkshire Dales. So broadly speaking we have sought to draw the line where there is a step change in the landscape character and a reduction in the influence of the Hill. One of the key tests of any boundary is whether it is one that 'makes sense' to its residents.

- To the west and east the valleys of the Ribble and the Calder are obvious boundaries.
- To the south the Whalley Gap has historically been seen as a major physical barrier that in no small measure defined the nature of both East Lancashire (urban) and the Ribble Valley (rural).
- To the east of the gap we chose the great transport routes established during the industrial age: the Leeds Liverpool Canal and the Railway.
- To the north, we include the Admergill valley as far as the outlier of Weets Hill. The ancient Gisburn Old Road and Coal Pit Road have been used here as a western boundary rather than the current A682.

To a certain extent this is an arbitrary boundary but one that makes sense in the context of landscape.

There are a number of smaller settlements that are contained within the project area which are picturesque and rural (Downham, Higham, Fence, Barley, Pendleton and Wiswell) or former industrial hamlets (Spen Brook and Sabden). The scale of these settlements is consistent with the Landscape Partnership approach and to engendering a 'sense of place' amongst residents as well as visitors.

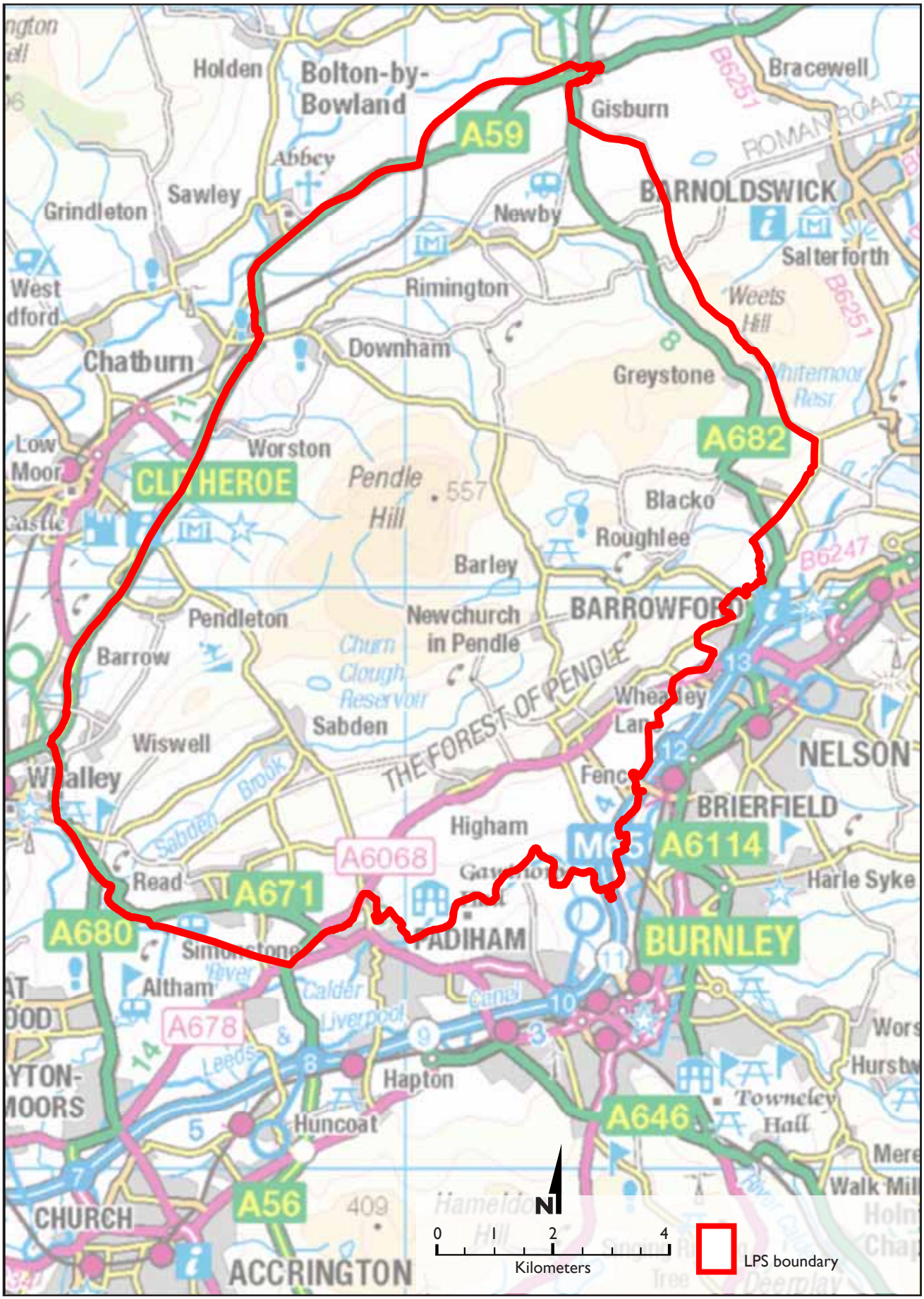
The major mill towns of Padiham and Barrowford have been excluded from the project area. These are significant townscapes that a Landscape Partnership would be ill resourced and equipped to address.

Although it is not intended to be carrying out physical works in these and other surrounding towns: Whalley, Clitheroe, Nelson, Burnley and Colne - it is recognised that this urban hinterland is integral to the project and reaching out to the communities, many of whose residents never set foot on Pendle Hill, is a key challenge for the scheme which it intends to address.

4.5 The Making of the Pendle Hill Landscape

At 557m Pendle Hill is a significant hill, more dominant than its height suggests as it rises steeply over 400m from the village of Downham lying just 3km from the summit. The massif stretches 13km from Weets Hill in the north east, to Whalley in the south west as it incorporates Rimington and Burn Moors, through the Sabden valley to Wiswell Moor.

Pendle Hill from Twiston



Map showing the boundary of the Pendle Hill LP

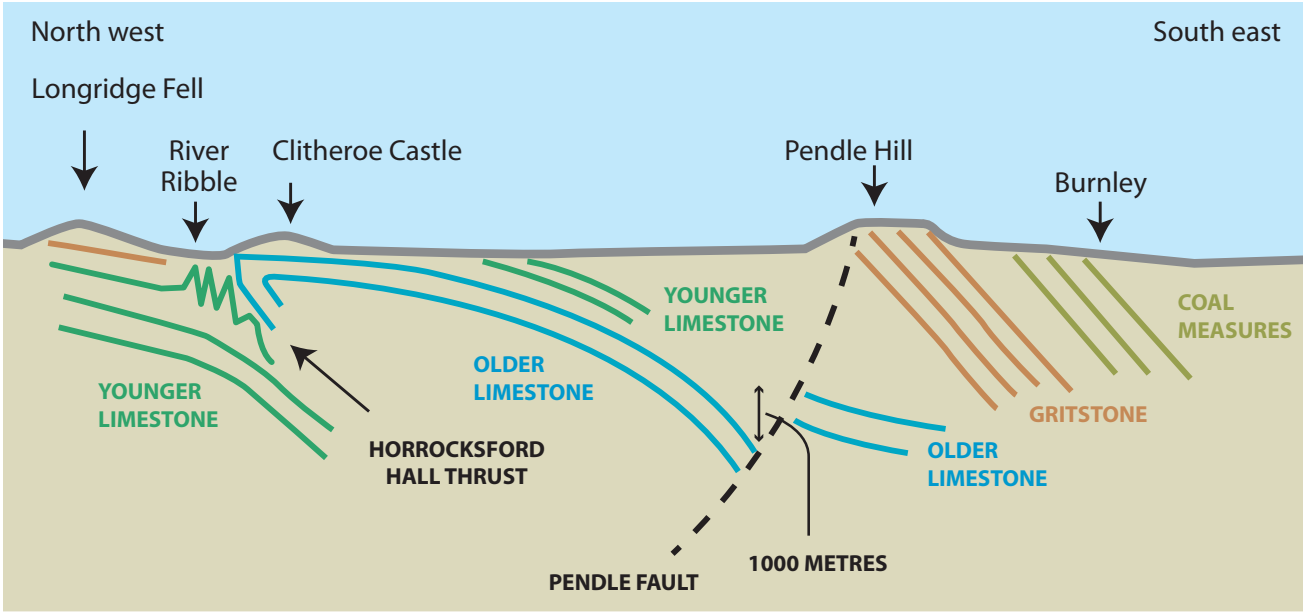
Roughlee Old Hall

4.5.1 Geology

The layers of limestone grit and shale which underlie the area were laid down in the Carboniferous Period from about 350 million years ago until about 300 million years ago. At this time, the area which is now Great Britain was in the southern hemisphere and experiencing tropical climates. The limestones were deposited at the edge of a basin in warm, clear, shallow tropical waters, teeming with life, now preserved as fossils and seen at sites such as the nearby Salthill Quarry, a Site of Special Scientific Interest (SSSI).

As the continent tracked northwards across Equatorial latitudes, the basin deepened and was then filled by huge quantities of sand and mud in an enormous delta at the mouth of a river system. Once the basin had filled over a period of several million years, forests flourished on the delta top. The remains of these forests are preserved as the coal seams of the Lancashire coalfield; and at least one of these seams outcrops on the southern flanks of Pendle Hill.

Earth movements during and after the deposition of the rocks of Pendle Hill resulted in a suite of rocks dipping generally to the SE. This can be seen in the sketch section below.



Sketch section from Longridge Fell to Burnley, as if looking north east across the Ribble valley. It indicates how the rock strata, all originally laid down horizontally, have been folded and faulted in the Pendle Hill area. (GeoLancashire, 2016)

During the filling of the basin, the stretching of the earth's crust led to major faults such as the Pendle Fault, which can be traced today to 4000 metres beneath the current surface. This stretching together with compression by weight of the deposited sediments, created a subsiding basin which continued to fill as it subsided, resulting in thousands of metres of deposition. Later tectonic activity gave rise to folding and uplift of the whole area.

As a consequence of these earth movements, mineral-bearing fluids were forced through the rocks, depositing lead and associated minerals including barytes (barium sulphate) in veins which have been worked in the LP area at places such as Rimington.

In the southern part of the area, for example at Ightenhill, coal was mined as long ago as the Middle Ages. Coal mining continued in the Burnley area until the latter part of the twentieth century and was vital in providing the power for the area's textile and engineering industry.

Pendle Big End

4.5.2 Geomorphology

Over tens of millions of years, the form of Pendle Hill has evolved. It developed because of the hard gritstones: resistant to erosion, and the structural effects of the NE – SW oriented folds and faults in the underlying rocks. During the Ice Age the area was repeatedly covered and eroded by ice. This probably included the ice flowing from the main source of glacial ice which lay over the Pennines, flowing south-westwards along the lines of the Ribble, Sabden and Calder valleys, deepening the valleys each time the ice extended and retreated. Similarly the steep northern slope of Pendle Hill and the 'Big End' were formed when the glaciers repeatedly hit the hard rocks forming the landmass.

Since that period, the post-glacial rivers have cut new channels and become diverted around glacial deposits left by the last ice sheet, which melted only 18,000 years ago.

4.5.3 Hydrology

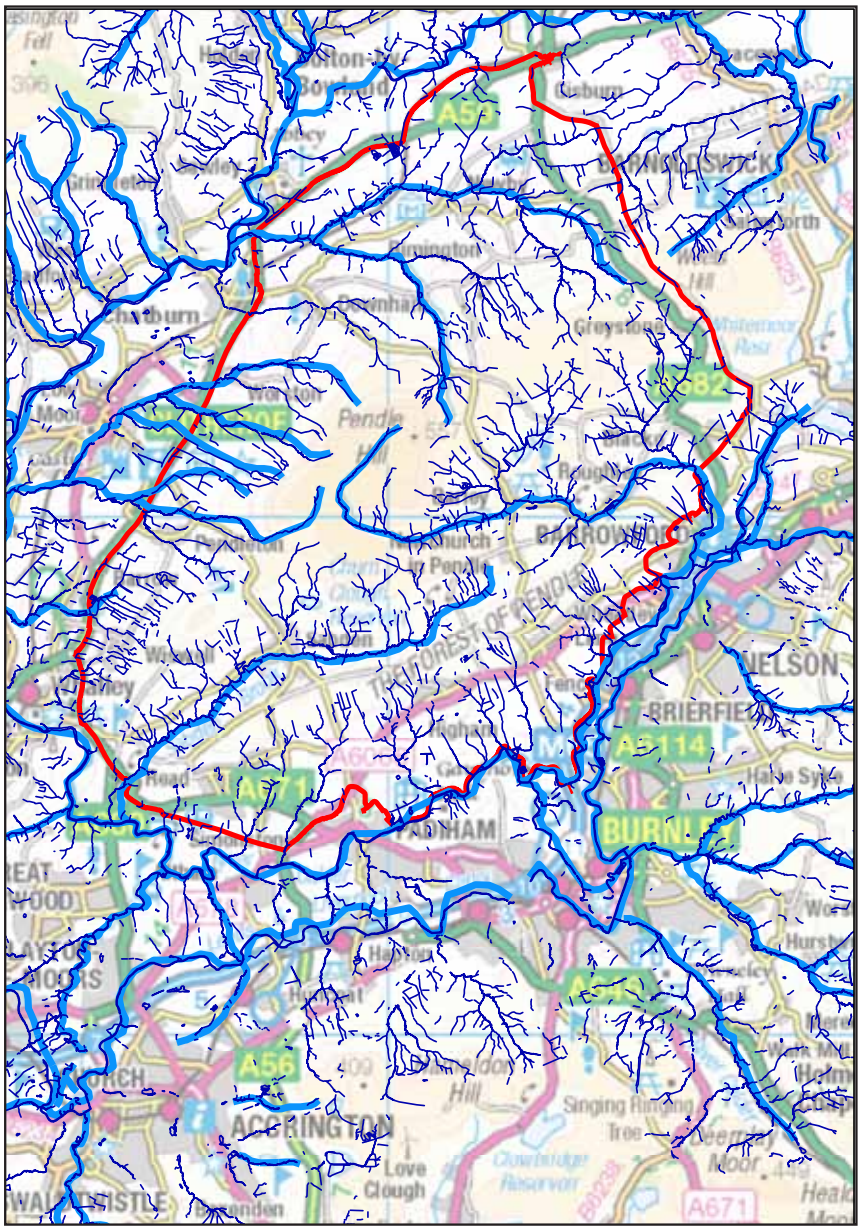
Although the landscape may give the appearance of stability there are occasions where water pressure (known locally as a 'burst' or 'brast') within the hill has created localised landslips such as on Big End or at Deerstones.

The hydrology exhibited today is a reflection of the underlying geology as well as present forces. The catchments of the Rivers Ribble and Calder and their sub catchments, Pendle Water and Blacko Water, Twiston Beck, Sabden Beck and Admergill Water create an intricate network of valleys through and around the main massif of Pendle Hill.

The rivers also make a significant contribution to the biological diversity of the area. The upper reaches of Mearley and Swanside Becks and Pendle Water are classified as 'good to moderate' ecologically, and are of 'good' quality chemically. They are oxygen-rich, pollution-free and support insect fauna including Stonefly, Blackfly, Mayfly and Caddis Fly nymphs, and the species which feed on them. The rivers also provide good habitats for Salmon, Brown Trout and Sea Trout; Grayling and coarse fish populations are typical in the Ribble and Calder, as well as some of the tributaries. Upland streams have important bryophyte communities. Northern spike-rush is found here and is an uncommon riverbank species. Streams and rivers also provide a habitat for dippers and kingfishers. Unfortunately the rivers also provide corridors for the invasion of non-native species such as Himalayan balsam and giant knotweed, both of which are found locally together with Japanese knotweed. These 'invasives' can crowd out our native ground flora from the riverbanks, leading to erosion in the winter months when the annuals disappear. We are supporting the surveying, reporting and strategic removal of these plants where it is deemed to be effective and possible.

In recent years, particularly since the 2015 Boxing Day floods in Lancashire, the local rivers have assumed a greater importance in our everyday lives. During that storm event, streams rising on the hill and flowing into the lowlands quickly overtopped their banks in Whalley and further downstream on the main River Ribble. Other local communities classed as being 'at high risk' from flooding (see Appendix 3) are identified by the Environment Agency as being Clitheroe, Sabden, Padiham, Nelson, Brierfield and Barrowford. These flash flood events have been seen in the area for hundreds of years but before 2015 it was perhaps most recently witnessed in 1967 in Barley and Roughlee. The potential for the Pendle Hill landscape to become a tool for natural flood management is now emerging.

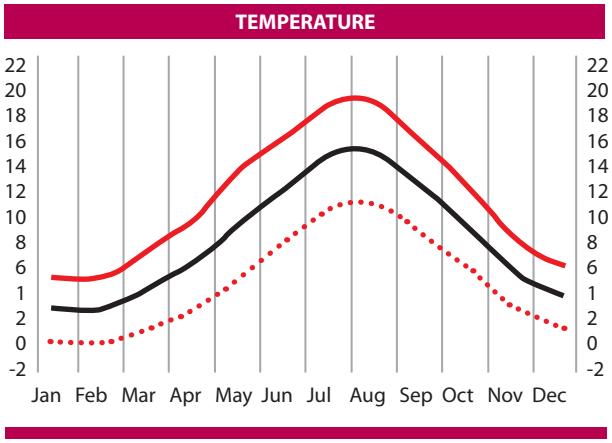
Watermeetings



The potential for the Pendle Hill landscape to become a tool for natural flood management is now emerging.

Map showing the hydrology in the Pendle Hill LP area

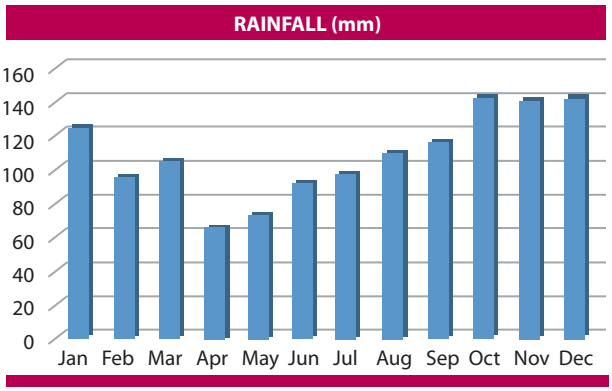
Re-wetting the peat by blocking gullies and re-vegetating bare peat; planting trees and shrubs in steep cloughs; creating 'leaky dams'; identifying and restoring neglected hedgerows and walls which intersect overland flow; and encouraging good soil management are all areas of work we intend to deliver in the planned LP scheme.



The average temperatures were measured in the period 1961–1990

The graph shows average maximum daily temperature, average minimum daily temperature, and average daily temperature per month.

(UK Meteorological Office, Bingley weather station statistics)



(UK Meteorological Office, Bingley weather station statistics)

4.5.4 Climate

As with much of north western England, the climate of Pendle Hill is cool and wet. Average daily temperatures range from 2°C in winter to 15°C in summer, with peak readings rarely above 20°C.

Total rainfall for the area is 1294mm per year (period 1981-2010), with the wettest months recording well over 100mm of precipitation.

Today's cool, wet climate means that the growing season is limited and that growing grass in the lower lying areas, and farming hill sheep on the moors, is really the only way to make a living from the land.

4.5.5 Landscape History

The physical factors of climate, geology and topography are not the only factors that contribute to a landscape. Cultural factors are also at play and land tenure has always been critical. For example, the protection afforded through Forest Law preserved a semi-natural landscape that remains to this day (Brigg, 1989). And in the lowland areas the 'designed' landscapes sought to create a landscape as a 'rural idyll'. These private estates were and continue to be extensive, for example, the Read Estate was comprised of 22 tenanted farms until the 1940s.

Some of the original common land became privately owned through the 19th century or was purchased by local corporations to become part of the water catchment for many of the adjacent towns. Now under the stewardship of United Utilities, water quality is a major driver for their land management.

The patchwork of fields, woods and moorland across Pendle Hill tells the story of enclosure: the continual piecemeal encroachment of the 'wastes' over centuries. Moorland brought into individual ownership culminated in the parliamentary enclosures which brought in areas of what had been formerly unenclosed semi-natural areas. Landowners and their tenants saw the potential for agricultural improvement with ready access to lime and mutual enclosure of common 'rough' grazing.

Angus Winchester identifies a common theme to this landscape of Pendle Hill and its hinterland as 'marginality' (Winchester & Crosby, 2006):

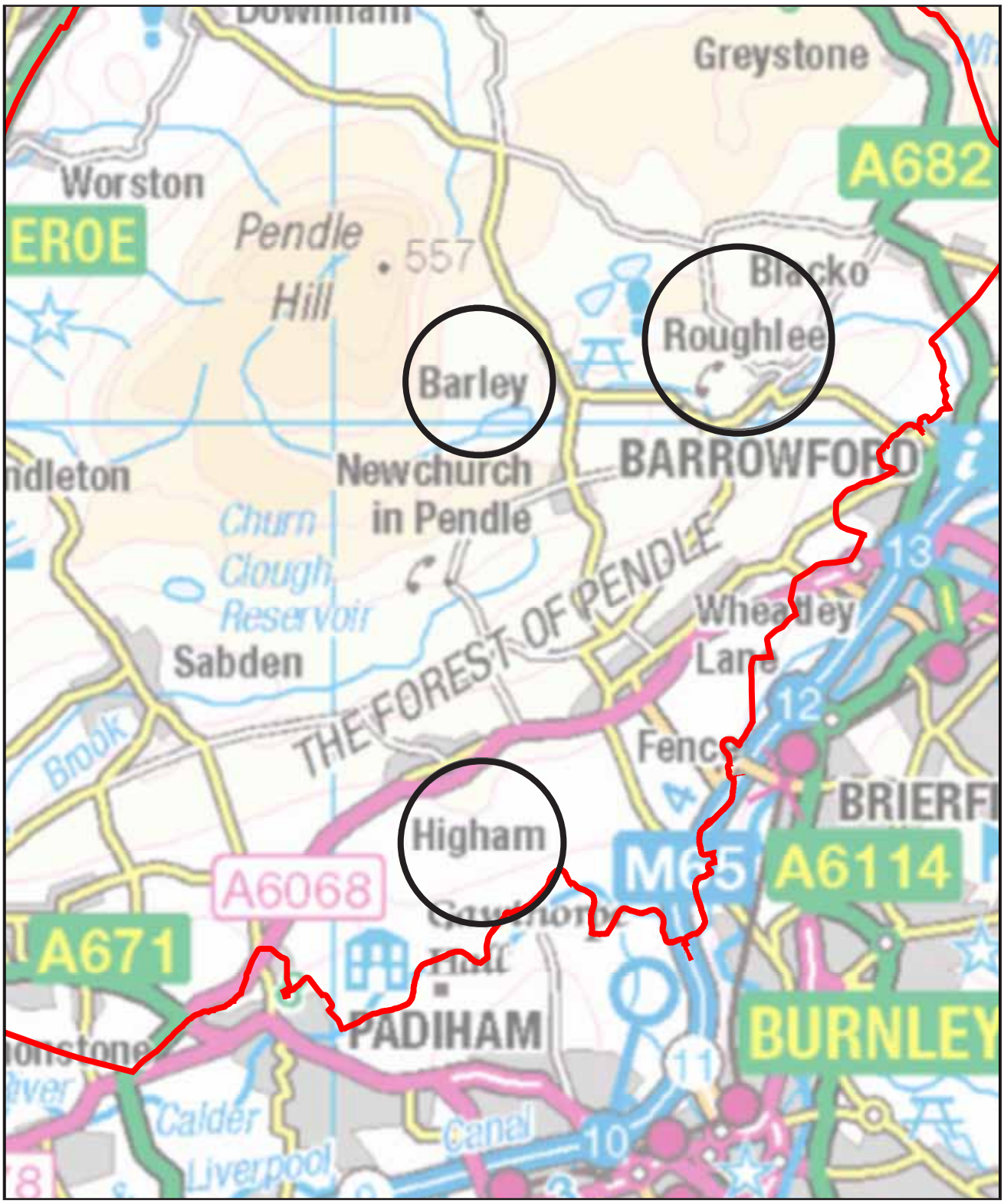
This refers not just to the physical marginality of a region where environmental constraints limit the scope for agriculture and restrict the possibilities for settlement, though this is one aspect. The upland periphery; frequently a sudden edge, is never far away, marking the boundary between lowlands where arable farming was possible and hill country where cultivation was marginal at best.

Pollen evidence suggests the first woodland clearance in the area was at the time of the Bronze Age. A deteriorating climate led to the abandonment of these sites and the leaching of nutrients and waterlogging that led to peat formation. The wood pastures of these areas thus became the acid moorland of later centuries.

From the Neolithic period onwards, land suitable for cultivation was settled. Free draining soils were at a premium and limited to the lowlands or higher ground above the river valleys that were not waterlogged. From these arable 'islands' or ridges the area taken into agricultural use was gradually extended into wetter and steeper territory as a result of population pressure.

From the 9th and 10th centuries onwards, there was an intensification of cattle rearing in the large farms or vaccaries on the eastern side of the hill, involving

seasonal movement to summer pastures. In 1296 there were eleven vaccaries recorded in the Forest of Pendle (Brigg, 1989). The hill slopes were enclosed in a large bowl shape to serve as pastures for the vaccary milk herd and oxen. The vaccary would be served by a boothsman and many vaccary names are retained in the area today.



A map to show an area of the Pendle Hill LP area which includes place or parish names which relate to former vaccaries. The research on vaccarries has been carried out by Pendle Heritage Centre volunteers, based on archive information about the vaccaries of Pendle Forest. The list of vaccaries include Barley, Fence, and Whitehough which relate to exisiting villages on the hill, Nether and Over Goldshaw and Roughlee which relate to existing parish names.

The area was prone to severe food shortages in the 15th and 16th century due to poor harvests of the staple crops of oats, barley and wheat, and there is evidence of a steep decline in population. By contrast, the increasing yields of the 17th and 18th century and increased security of tenure for copyholders in the old Forest area led to the sub division of land; and increased investment in farms, barns and dry stone walls.

The upland commons were largely retained until the large scale parliamentary enclosures in the 18th and 19th century.

The origin of the textile industry was in part from households seeking to supplement meagre farm incomes with spinning and weaving. As the factory workshop replaced the smaller-scale home spun workings, early water powered mills housing textile weaving and printing sprung up in the villages at Roughlee, Barley and Sabden. From these modest beginnings, towns such as Burnley and Blackburn, with populations of around 4,000 towards the end of the 18th century, exploded in the 19th century. Satellite villages such as Whalley became desirable retreats from this industrial heartland.

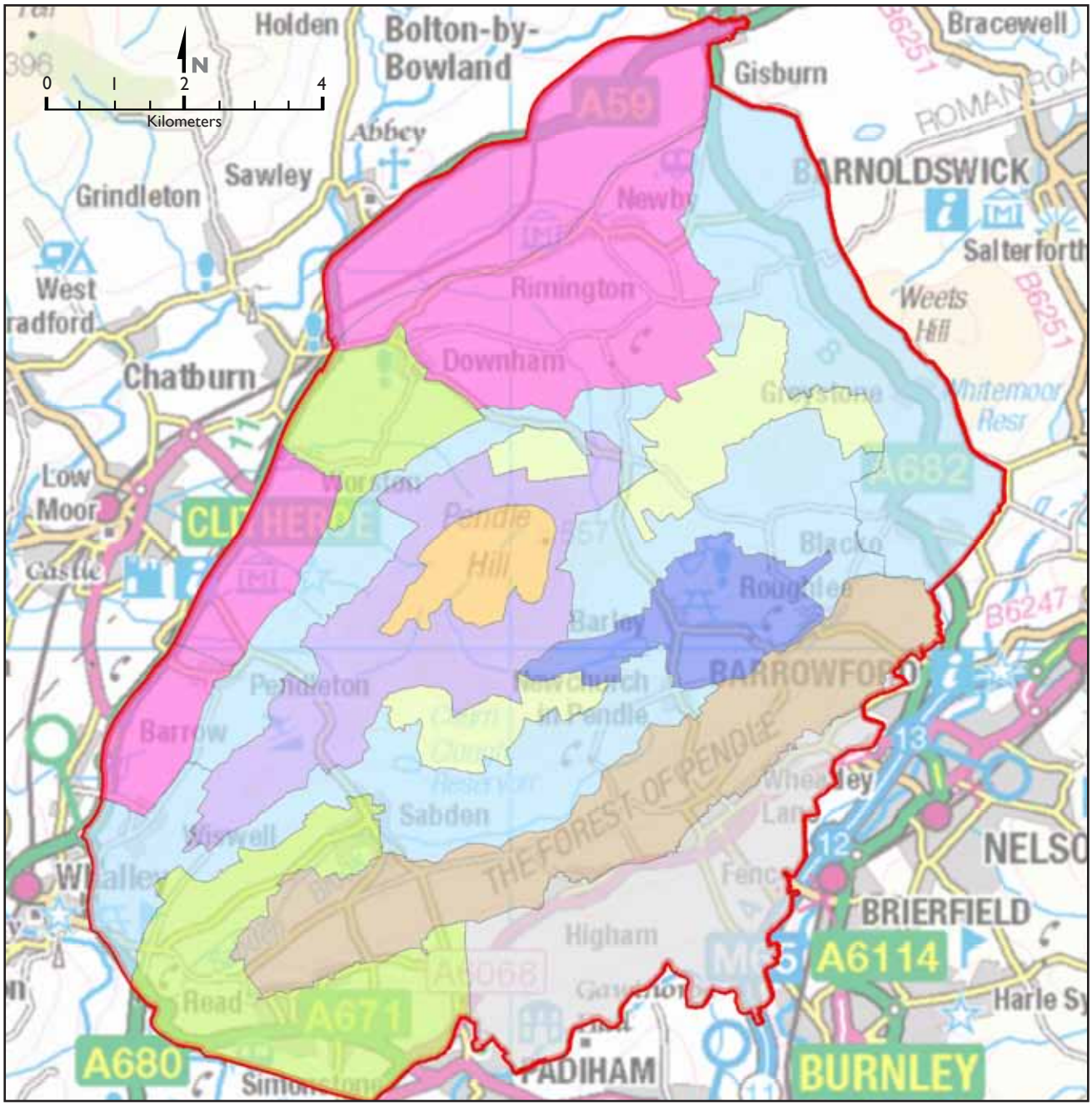
The growth of East Lancashire industry led to a new wealth for the gentry class and the growth of the private estates and planned landscapes at Read, Downham and Huntroyde reflect this. The need to supply these growing towns and their mills with water also led to the construction of reservoirs and the appropriation of land for water supply in the early 20th century, although many of the mills were already closing by the 1960s.

Ogden reservoirs

4.6 Landscape Character Assessment

Within the immediate environment of Pendle Hill are a number of concentrically arranged landscapes that encompass moorland plateau, moorland fringe, and undulating lowland. These are classified as a number of landscape types which are described below.

Each generic landscape type has a distinct character with similar physical influences (underlying geology, land form and soil) and a common history of land management such as the enclosure of moorland edges to create 'in-bye land'.



Landscape Character Assessment of the Pendle Hill LP area

LPS LCA New

- (all other values)

LCA Type

- Enclosed Moorland Hills
- Farmed Ridges
- Forestry and Reservoir
- Industrial Foothills and Valleys
- Moorland Fringe
- Moorland Plateaux
- Undulating Lowland
- Undulating Lowland Farmland with Parkland
- Unenclosed Moorland Hills
- LPS boundary

4.6.1 Moorland Plateau

This Landscape Character Area forms a dramatic skyline backdrop to several views towards Pendle Hill from adjacent Landscape Character Types;

Key Characteristics:

- The colour of the landscape changes with the seasons, from muted browns and greens in Spring and Summer, to vivid purple when the heather flowers in late Summer and white in the Winter months when the plateau are snow covered;
- Strong sense of openness, remoteness and tranquillity;
- The sweeping, heather clad moorland and blanket bog is windswept and exposed;
- The distinctive 'go back' calls of Red Grouse, the mournful cries of Golden Plover, the bubbling calls of Curlew, the cascading calls of Meadow Pipit and trilling calls of Skylark contribute to recognisable sense of place;
- The distinctive pattern of stone walls (mostly from the 19th century) contributes to recognisable landscape pattern;
- The deep valley of Ogden Clough is a key landscape feature which incises the plateau and feeds Upper and Lower Ogden Reservoirs;
- There is a lack of manmade structures on the moorland plateau (aside from the occasional cairn, walls & paths) which create a feeling of tranquillity and remoteness;
- The moorland plateau is mostly common land which is grazed by sheep. As part of the water catchment area, water quality is important as erosion can increase the extent of dissolved organic carbon;
- The plateau is open access moorland.

Only one area of moorland plateau exists in the LP area - Pendle Hill

Moorland Plateau

Unenclosed moorland hills

4.6.2 Unenclosed Moorland Hills

The moorland margin is the transitional zone between high gritstone moors and the adjacent major river valleys and plains. It typically slopes steeply from the moorland plateau as seen in the north sides of Pendle Hill down to more gentle lower slopes that merge into the lowlands and river valleys. The boundary between the moorland margin and lowland is often unclear, with glacial deposits and mass movement features evident.

Key Characteristics:

- Dramatic, panoramic, open views northwards across the Ribble Valley (and Clitheroe) towards the Yorkshire Dales and the central Bowland Hills;
- Panoramic open views across the industrial towns of the Calder Valley with the backdrop of the South Pennines to the south;
- Footpaths and sled tracks are landscape features within this area; in addition to old quarry workings on the northern face of the hill;
- Common land and rough grazing is a major element of this area;
- Open and exposed character, with a strong sense of remoteness and tranquillity, stone walls and fences are occasional features, but do not dominate landscape pattern;
- Dramatic cloughs, or steep valleys, are incised into the hillsides and often contain fast flowing streams. The scars of Ashendean, Ogden and Mearley Cloughs are key landscape features within views towards this area;
- The Devil's Apronful is a former cairn written into local legend: the Devil wanted rid of Clitheroe Castle. So he picked up various large stones, put them in his apron, and threw them towards the castle. Most of them missed, which made him angry. In a rage he dropped the great pile of rocks on the south side of Pendle Hill.

Only one, concentric, area of Moorland Hills exists in the LP area – Pendle Hill.

4.6.3 Enclosed Moorland Hills

Open and exposed in character. A distinctive network of stone walls contribute to landscape pattern and divide areas of rough grazing into small fields or 'copys'.

Key Characteristics:

- Dramatic and panoramic views northwards towards the peaks of Pen-Y-Ghent and Ingleborough in the Yorkshire Dales provide a recognisable sense of place at Twiston;
- The enclosed moorland hills are considered to have a very high visual sensitivity overall as a result of the strong sense of openness and generally uninterrupted skylines, coupled with strong inter visibility with adjacent Landscape Character Types;
- Non-nucleated settlement pattern;
- Drystone walls and occasional structures of roughly hewn blocks are strong features in otherwise open moorland;
- Large, straight-edged allotments enclosed by drystone walls running straight up the fellside;
- Isolated stone buildings and features;
- A strong sense of remoteness and tranquillity throughout.

Three areas of Enclosed Moorland Hills occur within the Pendle Hill LP area: at Twiston, Lingbobs and Stainscomb, and Downham Moor.

4.6.4 Moorland Fringe

A transitional rolling enclosed landscape of the moorland fringe defined by early human activity and retaining its medieval field boundaries.

Key Characteristics:

- Traditional stone field barns are a recognisable landscape feature;
- Dry stone walls of rough-hewn blocks create strong patterns within the landscape and reflect the underlying geology;
- Sheep grazing is the predominant land use, interspersed in places with a patchwork of traditionally managed meadows, wet rushy pasture, in-bye and acid grassland;
- Isolated farmhouses and winding roads bounded by drystone walls are key features of this landscape. They are amongst the oldest buildings in the area;
- There are a few small woodland copses;
- Traditional meadows, where they exist, are rich habitats (with Marsh Marigold, Yellow Iris, Ragged Robin, and Marsh Thistle);
- The transportation of salt, lime and wool lead to the extension of a network of packhorse ways reflected today in the network of winding roads and hilltop passes.

Four areas of Moorland Fringe occur in the LP area:, at Pendleton, Wheathead, Upper Sabden Valley and Middop

Enclosed Moorland Hills

Moorland Fringe

4.6.5 Undulating Lowland Farmland

This enclosed landscape comprises a rich patchwork of pastures, mixed farm woodlands, copses, hedgerows and scattered picturesque villages.

Key Characteristics:

- Open views towards the Unenclosed and Enclosed Moorland Hills, and the Moorland Plateau Landscape Character Types;
- Many mixed farm woodlands, copses and hedgerow trees;
- Intricate tapestry of grazed fields;
- A patchwork of wood and pasture when viewed from the fells;
- The value of streams, hedgerows and mature trees as potential visual and ecological corridors linking Biological Heritage Sites is of key importance;
- With their deep soils around the River Ribble, these areas were amongst the first to be settled and the network of farms and villages linked by deep, hollow ways remain today. Much of what can be seen in the patchwork of fields is medieval in date. During the 18th and 19th centuries, lime quarries and kilns were created to produce lime for local supply;
- Lead mines from the 17th century are of national significance.

Four areas of Undulating Lowland Farmland lie along the northwest boundary of the LP area at Dudland and Gisburn, Rimington, Worston, and Pendleton.

Undulating Lowland Farmland

4.6.6 Undulating Lowland Farmland with Parkland

This is the Undulating Lowland Farmland with designed landscapes superimposed: mature parkland trees and other ornamental designed landscape features contribute to the 'designed' estate character.

Key Characteristics:

- Mature parkland trees, avenues and hedgerows and other ornamentally designed landscape features contribute to the 'designed' estate character;
- Gently undulating topography;
- Remnant boundaries of former parkland are also visible features;
- Patches of deciduous woodland and single mature deciduous field trees contribute to an intermittent sense of enclosure within views across this landscape;
- George Webster (1797- 1864), a popular architect practicing in the northwest who was influenced by the Greek and Gothic revivals of the 19th century, designed both Read and Downham Halls. Formal gardens with lawns, plantations and fishponds can be found in the project area;
- Beyond these features seen in the 'desmene' areas, the impact on the wider countryside is significant within the extensive estate; tenanted under 'model farms' developed during the 19th century;
- Coverts for shooting, woodland shelter belts and planted avenues also ensured significant areas of woodland (over 100 hectares) within this area which contrast with the rest of the project area.

Much of this existing woodland has significant areas of Rhododendron (a feature of designed landscapes) which tend to dominate and would benefit from control.

Two areas of parkland are included in the LP area: Downham and Sabden (incorporating parts of the Huntroyde and Read estates).

Undulating Lowland Farmland with Parkland

Forestry and reservoirs

Farmed ridge

4.6.7 Forestry and Reservoirs

Once rolling upland farmland, human interventions of forestry and water supply now dominate these landscapes; although there are also large areas of pastoral fields and small patches of broadleaved woodland. Open water is present in this area around Barley village.

Key Characteristics:

- Landscape is dominated by a pattern of small reservoirs (including Upper and Lower Black Moss and Upper and Lower Ogden) and regular-edged blocks of coniferous plantation woodland, which overlay a pattern of pastoral fields;
- Smooth, pasture fields extend to the edges of the reservoirs;
- The network of minor road corridors that cross this landscape are often lined with stone walls;
- The dramatic valley of Ogden Clough is a striking landscape feature to the north of Barley although largely invisible from the village;
- Expanses of open water are a feature of this area;
- Some of the forestry has been clear felled leaving a scar on the landscape;
- The structures relating to the water supply industry are industrial archaeological features worthy of conservation.

Only one area of this type exists in the LP area – at Barley

4.6.8 Farmed Ridge

A unique ridge that offers dramatic views. Views southwards and eastwards are open and panoramic across the lush, improved pastures of the Calder Valley, with a network of hedgerows and post and wire fences on the lower slopes towards the urban areas of Barrowford and Colne. Views northwards towards moorland on Pendle Hill provide a dramatic backdrop.

Key Characteristics:

- Low stone walls often delineate field boundaries;
- The road on the summit is narrow and enclosed;
- Settlement pattern of isolated stone farmsteads which are often modernised/ suburbanised;
- Rounded ridge profile with gritstone outcrops;
- Panoramic views southwards across the East Lancashire valleys to the South Pennines, for example, from Black Hill;
- Open views across the glaciated U-shaped valley of Sabden Brook, which is lined with patches of mature trees. Stronger sense of openness to the east of Sabden;
- Neglected boundaries and rough grazing.

Only one area of this type exists – at The Heights

Industrial foothills and valleys

4.6.9 Industrial Foothills and Valleys

The Industrial Foothills and Valleys are a complex transitional landscape of relatively small scale with intensive settlement. This landscape character area encompasses the landscape of the broad valley of the River Calder outside the urban settlements.

The area has a gentler landform and more varied vegetation cover than the nearby higher ground. The area has undergone significant change with quarrying, open cast mining and critical infrastructure (sewage works, canal, and the M65) occupying the flood plain.

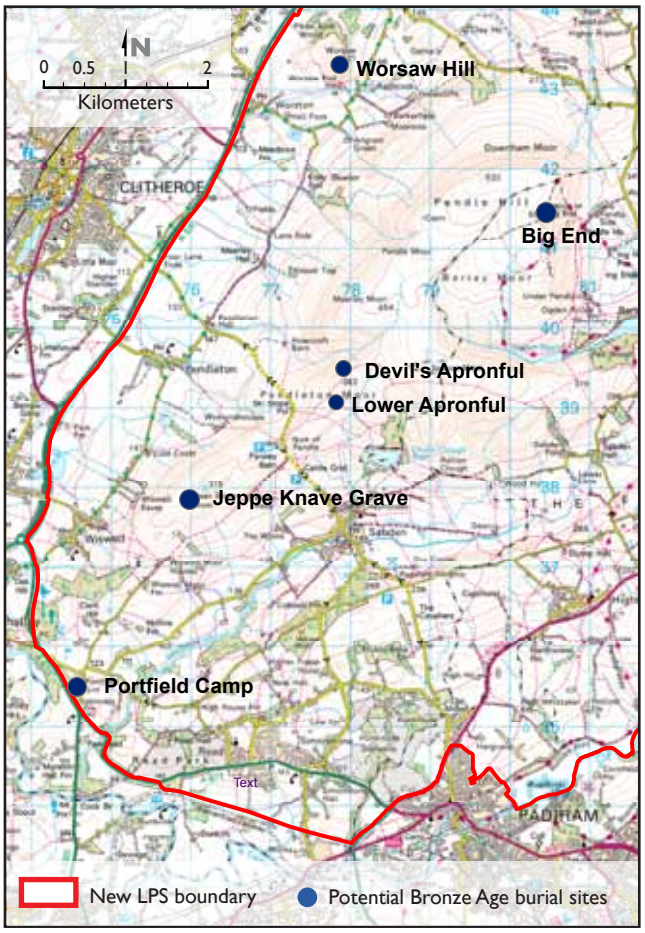
The area has undergone significant change with quarrying, open cast mining and critical infrastructure occupying the floodplain

Key Characteristics:

- Mostly improved pastures utilised for dairy farming as well as sheep grazing;
- Frequently, hedgerows and post and wire fencing are the common enclosure features on the lower slopes and valley bottom;
- The landscape is well populated; there are many houses, footpaths and large farms;
- Larger farmhouses (usually on the site of earlier houses) are a feature of the landscape;
- The historic village of Higham and the greatly expanded village of Fence are prominent. More recent residential developments on the edge of the settlements tend to dominate the long distance views;
- The urban fringes of Colne, Nelson and Burnley exert an influence over the landscape; close to the urban edge there are pockets of neglected land and urban fringe land uses such as horse paddocks and retail or industrial buildings;
- Linear cloughs (partially wooded) run northwest to southeast to the Pendle Water and the River Calder;
- The River Calder is substantially altered from its original course and not connected to its original floodplain;
- The area is defined by its southern boundary at the River Calder (with fine views across to Gawthorpe Hall).

Only one area of this type exists in the LP area – the Calder Valley

4.7 Historic Development of the Pendle Hill LP area



A map of potential bronze age burial sites in the Pendle Hill LP area

4.7.1 Prehistoric Pendle

Pendle Hill has seen human occupation over the past 12,000 years, with people moving into the area during the Boreal Phase as the climate became warmer and the ice sheets retreated north. This period is known as the Mesolithic and saw groups of hunter gatherers moving through the pine forests around Pendle. Lithic scatters, indicative of axe making, have been found on the ridge of Pendle along with the remains of these tools.

The Neolithic began in Britain around 4000 BC and is known as the farming revolution. It was at this time that the previously nomadic inhabitants adopted the settled lifestyles of farmers, harnessing nature with the growing of crops and keeping of livestock. Excavations of Portfield Camp in the 1960s identified a series of postholes alongside flint tools and sherds of Grimston Ware pottery. This is the most convincing evidence for Neolithic occupation within the Pendle Hill Landscape Partnership boundary, pottery of the same style was excavated from the River Wyre which was dated to 3600-3350 BC.

The Neolithic also gave rise to intricate trade networks using the rivers of Britain to transport luxury items such as polished stone axes. These trade networks continued into the Bronze Age which began around 2200 BC. This age saw the first use of metal and metal alloys. Finds of bronze socketed axes, spears, swords, golden jewellery and the waste materials attributed to the bronze working process have been found across the Pendle Hill LP area alongside the burial mounds in which they interred the dead.

An alignment of burial mounds follows the spine of Pendle Hill, beginning with a possible Early Bronze Age ring ditch burial within the enclosure at Portfield Camp. The next burial in the alignment can be found on The Rough of Pendle at the site now known as Jeppe Knave's Grave. Unfortunately this site has been badly damaged in the past but a short walk along the ridge to the north east allows another two potential burial sites to be found, at Lower Apronful and the Devil's Apronful. These stone built cairns are often added to by local walkers but may have started life as a Bronze Age burial mound. The alignment culminates with the Beacon or Big End on Pendle summit where another stone built cairn is supposed to have been seen. Another mound from this period can be found nearby on Worsaw Hill, with a grand view of Pendle. The positioning of these burial sites show how important Pendle Hill was to the prehistoric people of Lancashire.

View towards Bowland

Watermeetings

The Iron Age in Lancashire is notoriously hard to identify because it seems that iron did not make its way into Lancashire until much later than can be seen from the archaeology in the south of Britain. Alongside the lack of iron, it seems that the people who inhabited Lancashire at this time were 'aceramic', which means they didn't use pottery. This makes many sites difficult to date. Portfield Camp, for example is a hillfort, which were commonly built and used during the Iron Age, but the associated finds from this site date the fortification of the hilltop to the Late Bronze Age. Despite this, the Pendle area and much of Lancashire was home to the Briganties (the name translates to 'the High Ones', probably due to them living on the uplands of the Pennine ridge), who were described as a tribe that stretched "from sea to sea" by the Romans. The placement of the Roman fort at Ribchester during a time of native unrest in the 70s AD, shows that the area was populated enough to require a military presence along the banks of the Ribble.

4.7.2 Historic Invasions and the Medieval Period

A Roman road runs through the Pendle Landscape Partnership boundary to the north west of Pendle Hill from Ribchester Fort to Elslack, and it is still visible above ground just to the north of Downham. A Romano-British settlement can be seen just outside the LP boundary at Bomber Camp near Gisburn.

The decline of the Roman period saw the arrival of the Anglo-Saxons who reached the North West in the sixth century with the founding of the kingdoms of Mercia and Northumbria. This era is known as the Saxon or Early Medieval. The area around Pendle would have continued to be an important routeway long after the prehistoric period and it is believed that the extent of the boundary of the Northumbrian kingdom followed the line of the river Mersey and then followed the western Pennine ridge before continuing on to the east coast. Evidence for possible Saxon settlement can be seen at Admergill and historical accounts from the Anglo-Saxon Chronicles detail a battle fought in 798 AD at Walalaga (now Whalley) where Eardwulf, King of Northumbria defeated the great rebel leader, Wada.

The 9th century saw the arrival of the Norse who raided as Vikings across much of England before settling across the north of the country. The site of Noggarth, close to Spen Brook is a series of field boundaries marked out by rows of large boulders which are similar to Saxon or Norse field systems seen in other parts of the country. The name Noggarth means north field in the Old Norse language and it is possible that this site could be evidence of Viking settlement at the foot of Pendle hill.

The Norman Domesday survey of 1086 records the woodlands of Pendle and Bowland as prime hunting ground for red deer, wild boar, foxes and hares. The lands were given to Roger de Poitou by King William I and a castle was built at Lancaster for the administration and defence of the land. The land was divided out to subjects of the King and the de Lacy family of Pontefract were given the right to hunt the forests of Pendle.

The de Lacys retained some land for themselves (the 'demesne'), and the remaining land was portioned out to their subjects as sub manors. By the 1200s, land around Pendle and the hunting grounds were developed into the vaccaries described above. Other notable archaeological sites from the Medieval period exist at Ightenhill Manor and the, later deserted, medieval villages at Simonstone and Mearley.

Pendle Hill LP Timeline

7000BC – Mesolithic

6,000 years ago:
The area was originally thickly wooded with the exception of some of the highest and most exposed summits. These rounded hills were used by Mesolithic man to look out over a great expanse of hunting grounds.

2500BC – Bronze Age

3,000 years ago:
Climatic change (a wetter environment) and human intervention (removal of tree cover possibly by grazing pressure) changed the landscape radically – the bare open character of the moors therefore is relatively recent.

100 AD – Roman Road constructed from Ribchester to York

1,900 years ago: Roman influence was limited to the road from Ribchester to York passing to the north of Downham.

1,000 years ago:
Settlement and pastoral agriculture developed along the Ribble Valley.

- Assimilation of original Norse invaders. (Their legacy can still be seen in some of the place names).

1100 – Forest of Pendle

800 years ago:
From the Norman Conquest the development of the 'Forests' including the Forest of Pendle reduced encroachment and habitation. (Forests were areas of 'land set apart or placed in defence and subject to special conditions imposed by the royal will' rather than necessarily wooded). Elsewhere, 'vaccaries' areas cleared of woodland to provide pasture for small holders were consented.

700 years ago: Scottish raiding parties attacked the settlements in the area.

1322 – Scots invade Lancashire

200 years ago:
Parliamentary enclosure ensured that marginal land was enclosed by gritstone walls to increase the extent of pasture.

The designed landscapes of Read and Huntroyde were laid out with ornamental planting, water features, focal points and follies.

1660 – Lead mining in Rimington

369 years ago:
Cromwell's army travels the present course of the old Gisburn to Colne Road to meet the Scots at Preston.

400 years ago:
Publication of the 'Wonderful Discoverie of Witches in the Countie of Lancashire' by Thomas Potts.

1612 – Pendle Witch Trials

500 years ago:
The disafforestation of Pendle Forest (1507). New settlements were developed such as Newchurch. Elsewhere settlement development came under the patronage of the great estates (i.e. Downham under the Assheton Family).

1507 – Disafforestation of Pendle Forest

100 years ago:
Construction of Lower Ogden Reservoir (1914) & Upper Ogden Reservoir (1906) & Upper Black Moss Reservoirs (1894) and Lower Black Moss Reservoir (1903) to supply the growing population of Nelson with water.

75 years ago:
Continued decline in agriculture and rural population after the Great War. Afforestation such as the plantations around Barley seen as a means of encouraging rural employment.

1964 – AONB designated

50 years ago:
Agricultural intensification followed the war and push for productivity with subsequent loss of landscape features including hay meadows and hedgerows.

25 years ago:
Introduction of agri-environment programmes to support benefits for biodiversity and landscape restoration.

5 years ago:
400 years of the Pendle Witch Trial increases national interest in the area including the development of the Lancashire Witches Walk.

4.7.3 Radical Pendle

The Hill is forever associated with the Lancashire Witches, but many visitors never see beyond that cliché. There is so much more to tell!

Since the 17th century Witch Trials and the emergence of Fox's Religious Society of Friends, Pendle has remained a place that has sheltered and nurtured protestors and dissenters. Whether that is a product of the place being remote and lawless, or something that the landscape has instilled in people here, and which has developed from their self-reliance and tough ways of life is unknown. Whatever the causes, this radical nature is notable and we want to explore and celebrate it.

We will re-tell the stories of The Pendle Radicals including prominent suffragist Selena Cooper who grew up in Barnoldswick and worked in the local mills from the age of 12. Selina became active in the early trades unions and the women's suffrage movement and in 1910 was one of four women selected to present the case for 'votes for women' to the Prime Minister. During the First World War she developed the first ever Maternity Centre in Nelson, and her political life continued with an appointment to the Poor Law Guardians as a representative of the Independent Labour Party. Sadly, despite the passing of the law to enable women over 30 to vote in 1918, the Labour Party in Nelson refused to adopt her as candidate for the party in the General Election that year. Despite this she became a local councillor and magistrate and was active in the fight against fascism in the 1930s.

Richard Cobden who was a factory owner in Sabden and an influential Manchester businessman. Cobden was an MP and co-founder of the Anti-Corn Law League which successfully campaigned from 1838-46 to abolish the unpopular Corn Laws. These protectionist policies were supported by wealthy British landowners and kept the price of corn and bread high, fuelling hunger and discontent for the workers.

After Fox had come, Pendle also saw many other radical preachers visit the area: John Wesley first appeared in Padiham in 1757, and many more Methodists arrived in the 1760s and 70s. In total 57 Methodist and 47 Baptist and other non-conformist chapels sprang up in Burnley alone. Other radical preachers like Benjamin Ingham, founder of the Inghamites, and a number of other smaller non-conformist groups set up chapels and preaching stations. These groups often supported the setting up village schools, adult education and social reform movements.

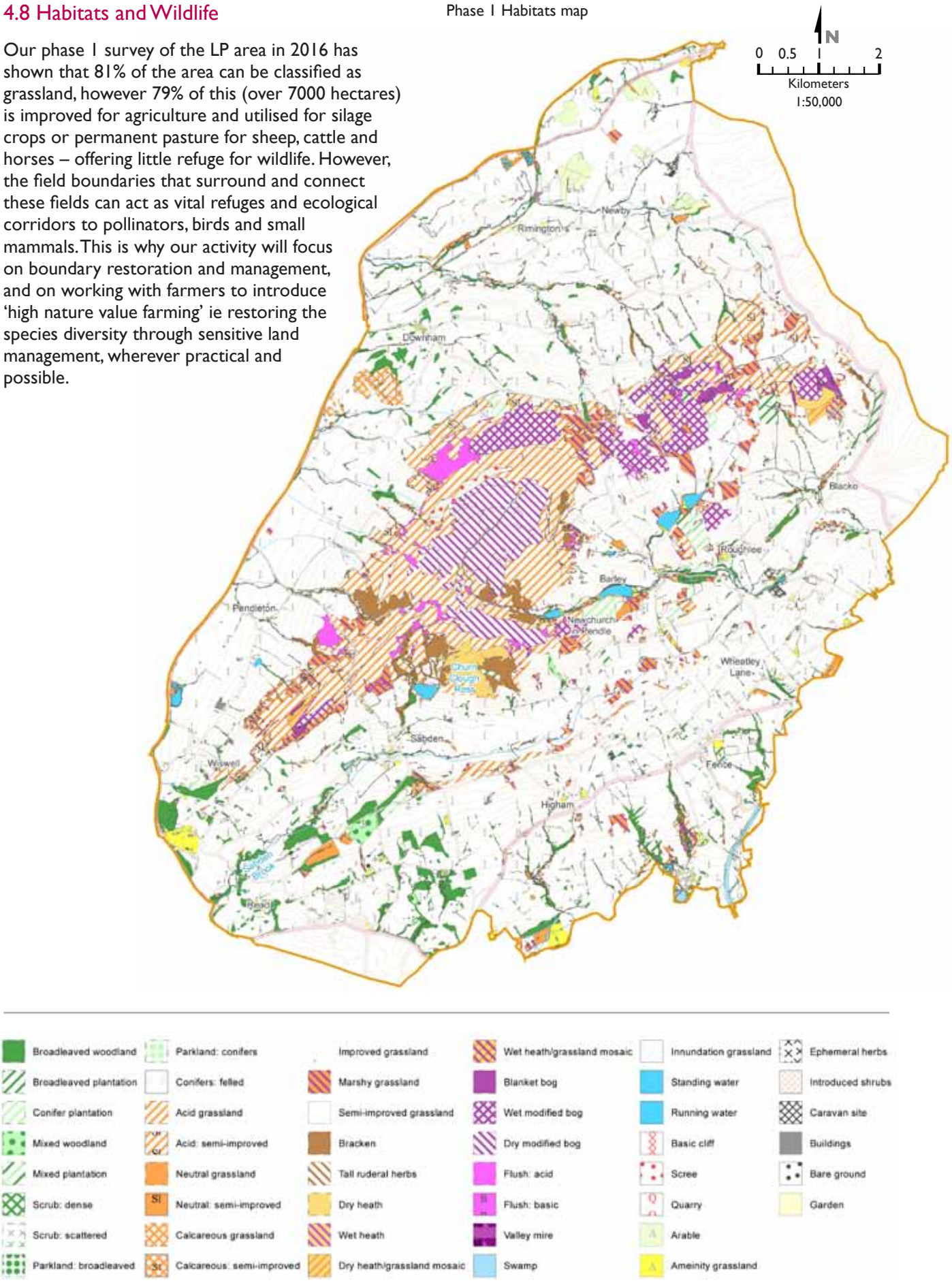
The Independent Labour Party in Nelson, one of the first branches in the country, built Clarion House on land off Jinny Lane which they had bought as a 'Land Trust' in 1912, it was opened by Labour MP Philip Snowden. This is the last remaining Clarion House in the country and it still operates today as a haven for walkers, cyclists and radical thinkers.

Photo courtesy of the Clarion House

4.8 Habitats and Wildlife

Our phase 1 survey of the LP area in 2016 has shown that 81% of the area can be classified as grassland, however 79% of this (over 7000 hectares) is improved for agriculture and utilised for silage crops or permanent pasture for sheep, cattle and horses – offering little refuge for wildlife. However, the field boundaries that surround and connect these fields can act as vital refuges and ecological corridors to pollinators, birds and small mammals. This is why our activity will focus on boundary restoration and management, and on working with farmers to introduce 'high nature value farming' ie restoring the species diversity through sensitive land management, wherever practical and possible.

Phase 1 Habitats map



4.8.1 Grassland

The majority of semi natural habitats are on the upland spine of the LP area, and these include blanket bog, peatland, acid grassland and heath. Large areas of acid grassland are found on the flanks of the hill itself and along the ridge to the west of the Nick of Pendle. The majority of this grassland is dominated by mat grass (Nardus stricta) often with frequent bilberry (Vaccinium myrtillus). On the slightly drier slopes common bent grass dominates (Agrostis capillaris) and some sheep's fescue grassland (Festuca ovina) is also present.

There are also areas of rushy and marshy grassland present: both as small wet areas in fields, and as large expanses in allotments on the hill slopes. On higher ground, these are replaced with acid flush vegetation dominated by rushes: both soft rush (Juncus effuses) and sharp-flowered rush (Juncus acutiflorus) which is abundant in more herb rich stands. Amongst the rushes there is a scattering of herbs such as greater bird's foot trefoil (Lotus uliginosus), meadowsweet (Filipendula ulmaria) and common sorrel (Rumex acetosa).

Stands of calcareous grassland are found on the limestone around Worston and Downham – and that on Worsaw Hill (a Biological Heritage Site) includes areas of blue moor grass (Sesleria caerulea).

Large stands of bracken are found on the moderately steep slopes of the hill where the soil is deep – above Churn Clough, around Wood House Brook, below the Big End and along some of the steep cloughs.

When comparing the phase 1 survey to that undertaken in 1988 it is clear that large areas mapped then as semi-improved neutral grassland have now become improved. This is particularly apparent to the south and east of Pendle Hill where the land is more agriculturally marginal than that on the lower lying ground of the western plain. In 1988, 931 hectares of semi-improved grassland of all categories was recorded, whilst in 2016 only 462 hectares was mapped – a result of significant agricultural intensification, and a major loss of natural habitat.

4.8.2 Heath

Stands of heath are uncommon, covering less than 1% of the LP area. Stands of dry heath are dominated by heather (Calluna vulgaris) with bilberry (Vaccinium myrtillus), although on Burn Moor the dry heath is grassy. Wet heath is found on The Rough, Black Hill and Burn Moor and is composed of cross-leaved heath (Erica tetralix) heather (Calluna vulgaris) and purple moor grass (Molinia caerulea).

4.8.3 Mire and Swamp

Large areas of blanket bog are present on the deep peat (that is, peat over 50cm deep) found on Pendle Hill, Spence Moor, Downham Moor, Twiston and Rimington Moors and Burn Moor. Most of this was mapped as modified wet or dry bog. However, where Sphagnum moss species such as Sphagnum papillosum and/or Sphagnum Capillifolium were found to be frequent or abundant, the habitat was mapped as blanket bog – at The Bog Field and on The Rough.

As mentioned above, acid flushes are found on the upland ridge, either as large extents as at the western end of Downham Moor and at the head of Swarndean Clough, or as narrow runnels through the acid grassland.

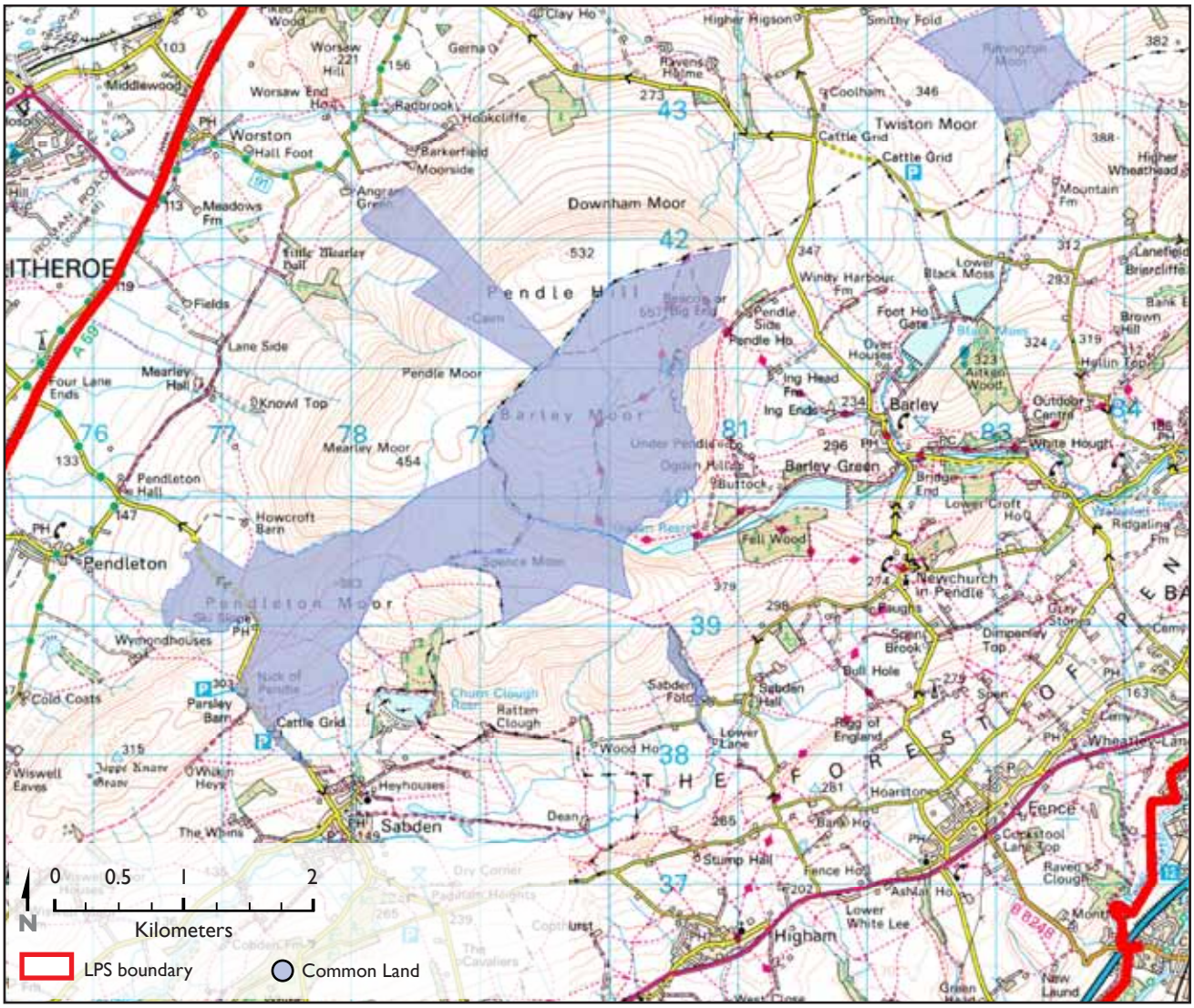
Basic (alkali) flushes are rare and are mainly found along Swanside beck and its tributaries, along Churn Clough and on the lower end of Moor Isles Clough. Unusually, these are dominated by lesser pond sedge (Carex acutiformis). More conventional basic flushes dominated by short sedges and brown mosses are found at The Rough and on Earton Hill.

Valley mires are confined to shallow valleys on Burn Moor and Rimington Moor and a narrow valley on The Rough.

4.8.3 Biological Heritage Sites

Throughout the LP area 60 areas with a high ecological value have been classified as Biological Heritage Sites, the equivalent to County Wildlife status (see Appendix 1 – list of BHSs). Many of these were designated 30 years ago and some have not been surveyed since then, until our survey. As BHSs are mostly in private ownership and the designation does not provide any statutory protection, our survey has identified a number in need of improved management and these will provide the focus for our 'Wild about Pendle Hill' project. These sites are detailed in the Habitat Action Plan for Pendle Hill LP. In addition the phase 1 survey identified a number of new sites which may merit BHS status and these will be surveyed in more detail during the delivery stage.


Worsaw Hill



Map of Common Land in the Pendle Hill LP area

4.9 Farming and Land Use

Pendle Hill exhibits a patchwork of land use and farming types, determined largely by geology, drainage, altitude and historical tenure.

4.9.1 Moorland

Lying above the limit of cultivation, moorland (often common land) remains an integral part of the upland farming system. The primary use is as summer grazing for sheep but they have in the past been a source of fuel, with peat being dug as a commoners' right.

Pendle Hill supports five large commons (Pendleton, Barley, Worston, Spence and Rimington) which are still managed by associations of the graziers who retain common rights. A number of smaller commons also exist at Rimington and Sabden Fold. Some areas of the commons, which are mostly within the land ownership of the Downham Estate, have been fenced to reduce stock numbers and to reverse the impact of historic over-grazing under recent agri-environment agreements. On Barley Moor the heather coverage is increasing as a direct result of this action.

All of the moorland and common on Pendle Hill was designated as open access land by the Countryside and Rights of Way Act (2000) and as such is open to the public.

4.9.2 Woodland

The LP area was once much more heavily wooded, however, climate change at the end of the Atlantic Period (3500 to 3000 BC) brought in a cooler wetter period, which restricted tree growth and led to the formation of peat on the moorland plateau. Clearance of the woods for timber accelerated tree loss to the point where the remaining woodland today only exists in the steep valleys known locally as cloughs, or on escarpments unsuitable for grazing or cultivation.

Deciduous woodlands planted in the designed landscapes of Huntroyde, Read and Downham provide the largest areas of deciduous woodland cover in the LP area. These were planted in the mid to late 19th century and today largely consist of a mix of non native beech and sycamore along with some substantial specimens of oak and ash. On the Huntroyde estate there are some notable ancient oak trees dating back several centuries. These designed woodlands were planted for aesthetics but also for shooting cover, and the inclusion of rhododendron for these purposes severely limits their wildlife value.

Ancient and semi natural woodlands are very limited in the project area; they are almost totally absent to the north of the project area, they can also be seen in the cloughs that feed the River Calder and in the lower Sabden Valley. These mixed broadleaved woodlands are mostly a mix of ash, sycamore and oak. They offer an opportunity for further woodland creation and restoration: by increasing their extent and connectivity we will make these habitats more resilient into the future as well as assisting with natural flood management.

Ash tree on the Downham Estate

Sadly, Ash Dieback, caused by the fungal disease Hymenoscyphus fraxineushas, (previously called Chalara) been noted in the woodlands and roadside plantations around Whalley and Clitheroe. If this spreads throughout the LP area we will experience a notable loss of tree cover and a subsequent loss of the biodiversity dependent on it. We will look to introduce replacement species where possible, although how can you replace such a beautiful, graceful tree so dominant in our landscape?

4.9.3 Plantation Woodland

The conifer plantations associated with the Barley and Churn Clough reservoirs date mostly from the 1930s onwards. There was little consideration to the ecological value of the existing habitats, and plantations have been planted on dwarf-shrub heath, marshy grassland, flush habitat and species-poor semi-improved grassland. In some areas the larch plantations have recently been clear felled, as at Churn Clough and Ogden, due to the presence of the disease Phytopthora ramorum (larch tree, or sudden oak death, disease). Surprisingly, there is more broadleaved plantation than coniferous in the LP area, and this has notably increased from 334 ha in 1988 to 602 ha in 2016: an increase of 80%, largely due to new woodland creation grants and agri-environment schemes.

4.9.4 Water Gathering

The reservoirs around Barley and at Churn Clough near Sabden were built to provide drinking water for the nearby industrial towns, and were constructed in the early 20th century. Originally built by small water companies, they are now owned and managed by United Utilities.

The Ogden reservoirs to the south west of Barley are fed by Ogden Water which rises near the summit of Pendle and acts as the borough boundary between Pendle and Ribble Valley for much of its length. The name Ogden means 'valley of oaks'. Originally harnessed to power cotton mills at Barley Green and Narrowgates, the beck was dammed in 1906 to create the Upper reservoir, and then again in 1914 to create the larger Lower reservoir. Between them, they can hold over 250 million gallons of water.

Black Moss reservoirs to the north east of Barley were built in 1894 (Upper) and 1903 (Lower) and are important sites for birdlife. Between them, these two reservoirs hold around 100 million gallons of water which is taken to Nelson when needed for drinking water. A regular compensation flow from both reservoirs feeds the beck downstream.

Churn Clough reservoir (above Sabden), is small at 5 hectares and was built in 1892. Owned and managed by United Utilities, it is an important trout fishing venue managed by Colne Water Angling Club.

4.9.5 Sheep Farming

Whilst many farmers run their sheep on the moors and commons for part of the year, they also manage lower lying 'in-bye' land around the hill, and this includes the farming of fields as pasture and as grassland or meadow.

Pasture is land that is grazed year round (by sheep and/or cattle) whilst the other fields are managed primarily for growing grass as winter fodder. In the past, and up until the 1970s in this area, the meadow fields were managed in the more fertile lowland parts by removing stock after lambing, and then cutting hay in mid-summer. The fields were then grazed again and muck was spread to improve fertility.

Hay making, always difficult in the wet north western uplands, has largely been superseded by more intensive methods which include regular applications of herbicides, chemical fertilisers and slurry, and by taking 2 or even 3 cuts of grass as haylage or silage. This agricultural improvement of grassland, whilst good for producing fodder, has had a massive impact on wildlife and the landscape. Early cuts of grass disturb ground nesting birds such as curlew and lapwing, and also prevent the wide range of grasses and associated meadow flowers from flowering. Mechanical mowing has led to larger fields and to the abandonment of boundaries and field barns. However, small areas of species-rich grassland remain in field corners, in inaccessible valleys and along roadsides, and we intend to restore more grassland to meadows as part of the 'Wild About Pendle Hill' project within the LP scheme.

4.9.6 Dairy Farming

In the Gisburn area of the LP scheme, dairy farming exists on an almost industrial scale, as the fertile drumlin landscape offers opportunity to grow fodder crops such as spring wheat and maize on ploughed fields. Some dairy herds are kept indoors most or all of the year and so the fields are highly improved and fertilised with slurry and chemicals, and traditional boundaries are not always retained or maintained.

In other parts of the LP area - around Pendleton, Rimington and Sabden - dairy farms are less intensive and smaller scale. Both organic and raw milk are produced by small farms at Gazegill and Cockshutts.

4.10 Boundaries

The boundaries to fields are an integral (if wholly man-made) part of the landscape. They are part of the cultural landscape with different phases of enclosure dating back at least seven hundred years. This distinctive upland landscape of hedges, banks and drystone walls is therefore a product of piecemeal evolution over centuries.

Ancient enclosure, classified as mixed species hedgerows, walls, banks and ditches dating from before 1600, tends to be of small to medium, irregularly shaped fields, most of which seem to enclose individually farmed holdings. In the Pendle Hill area these are found around most of the villages, ie Rimington, Downham, Worston, Pendleton, Wiswell, Sabden, Higham, Newchurch, and Roughlee; as well as in isolated areas around Gazegill, Admergill, The Rough, Blacko and Twiston. Some of these early enclosures are the result of 'assarting' or the enclosure of woodlands as around Sabden Hall and Barley. On the eastern side of the hill some boundaries still trace the old vaccary boundaries and the internal subdivisions of these which were created by the copyhold tenants in Pendle Forest during the 16th century.

Later field boundaries were created as a result of piecemeal enclosure of the lower-lying land and some of the commons. Then, from the 17th to 19th century 'parliamentary enclosure' brought much more land into farming, leaving only the very tops of the hill unenclosed and still under common land. These parliamentary walls are the longest, straightest walls you see, often running up the side of the hill, or cutting up the foothills into large, regularly shaped and sized fields.

This distinctive upland landscape of hedges, banks and drystone walls is therefore a product of piecemeal evolution over centuries.

The dry stone walls made of gritstone and of limestone create a texture to the landscape. Their deterioration can create the impression of neglect, and their replacement with post and wire can appear like clutter. However, restoring dry stone walls can cost up to ten times as much as using post and wire fencing. Financial incentives (whether through Heritage Lottery Funding or agri-environment) can be used to rebuild these walls and as a training opportunity, with the skills of drystone wallers still in high demand.

According to the RSPB, hedgerows can support up to 80% of our woodland birds, 50% of our mammals and 30% of our butterflies (RSPB, 2016). The ditches and banks associated with hedgerows provide habitat for frogs, toads, newts and reptiles. In the recent past, amalgamation of land holdings and the need for larger field sizes to accommodate large scale silage mowers has led to the loss of hedgerows. To retain these hedgerows requires on-going management or hedge laying. Where this does not occur, the hedgerows become 'gappy' and a significant feature is lost. We plan to re-instate important lost hedgerows and to lay older boundaries, and to offer training in this traditional rural skill to a wide range of volunteers and contractors.

4.10.1 Boundary Survey

During the 2016 survey 8437 individual boundaries were surveyed, amounting to a total length of 1,551,204 metres or 15,512 kilometres. Of these boundaries 37% were hedgerows (predominating the lowland fringes and undulating lowland farmland on the Ribble Valley side) and 27% were dry stone walls (mostly concentrated in the more central upland parts of the LP area). The remaining 32% were fences and these were mostly found in the Calder Valley, along The Heights and in the lower Sabden Valley. 3% of boundaries had been removed, presumably since the latest OS mapping was completed as we know far more than this have been removed over time.

The survey also identified gaps within the hedges as this detracts from their ability to act as an ecological corridor, as well as detracting from the landscape character.

4.10.2 Hedgerow Condition

The survey also recorded the condition of boundaries. For hedges the classification shows both the types of hedge and the condition of over 400,000 metres or 400km of hedge.

The survey also identified gaps within the hedges as this detracts from their ability to act as an ecological corridor, as well as detracting from the landscape character. The areas with the most gappy hedges were again in the most intensively farmed areas around Pendleton, Middop, Worston, Rimington and Sabden.

Hedge Type	Laid hedge	Cut/clipped	Overgrown bushy undergrowth	Overgrown no undergrowth	Remnant straggly line of trees	Newly planted hedge	Grand Total
Intact hedge	1,228	74,532	20,227	41,813	1,709	8,903	**148,412**
Hedge with trees	722	47,067	70,564	55,599	2,464	3,054	**179,470**
Defunct hedge	-	3,422	802	2,305	78,969	-	**85,498**
Grand Total	**1,950**	**125,021**	**91,593**	**99,717**	**83,142**	**11,957**	**413,380**

4.10.3 Wall Condition

Generally speaking, the network of dry stone walls are in a better state of repair than the hedges, apart from around Worston, Dudland and Gisburn although the actual numbers here are low.

A number of very visible walls have been abandoned as being no longer of use in the farming system and this can lead to an atmosphere of neglect, however in reality only 3% of the 300,000 metres of wall surveyed are abandoned and nearly 80% are in good condition.

The Traditional Boundaries report and Action Plan provide much more detail, and using a combination of survey data we have drawn up a list of priority areas for boundary restoration, see appendices 4 and 5. This prioritisation will be the focus of restoration and management activity to be undertaken by our 'Traditional Boundaries' project.

4.11 Ecosystem Services

Pendle Hill, as with any landscape area, can be described in terms of the 'ecosystem services' which it offers. Ecosystem services are the benefits we get from nature. These include food, energy, clean air and water, regulation of risks (floods, droughts, erosion) and recreational or spiritual benefits.

Ecosystems services are usually classified as:

a) provisioning

b) supporting

c) cultural

d) regulating

Provisioning services provide for us – food, water, energy etc; whilst other services support that provision.

> *Supporting ecosystem services include the ground beneath our feet: the inert, the micro life, lower life forms, and invertebrates that, in conjunction with air, water, and light, support vegetation and thus all higher life forms (Daily et al., 1997; Rodriguez et al., 2006; MA, 2005). Soil and soil fertility is critical to the cycle of life (Daily et al., 1997; Rodriguez et al., 2006; MA, 2005). In the paper Ecosystem Service: Benefits supplied to Human Societies by Natural Ecosystems (Daily et al., 1997), five interrelated services (functions) provided by soil are described including three that lie within the supporting ecosystem services: one, soil protects seeds and physically supports their growth as they mature into plants; two, soil retains and delivers nutrients to plants; and three, soil plays a crucial role in the decomposition of dead and decaying matter. Without these functions, higher life forms, including humans, would not be able to survive. So, although often taken for granted, the supporting ecosystem services are as critical to human life as the provisioning service.*
>
> From Kerry Morrison, 2015, Exploring the cultural ecosystem services associated with unmanaged urban brownfield sites:
> An interdisciplinary (Art and Sciences) approach. (PhD Thesis)

Cultural services provide the spiritual and emotional benefits of landscape; whilst regulatory services help us to regulate services, for example by reducing the risk of flooding or mitigating against climate change.

The majority of the LP projects interact with ecosystem services, the framework in appendix 6 illustrates the services we have identified, and how our activities will affect them. In particular we are interested in how the landscape, and peoples experience and connection with it, affects our health and wellbeing: 'What's a Hill Worth?' and the PEN project will seek to address and quantify this directly.

Engaging new audiences © Phillippe Handford

4.12 Communities

The communities of Pendle Hill, along with its physical and historic character, give it a distinctive sense of place. Admittedly the two sides are different and the hill may physically divide them, but it also brings rural communities together: as a resilient and friendly population.

4.12.1 Local Residents

The total population of the LP area is 20,387 (2011 census), with a fairly even divide between the Pendle and Ribble Valley districts. Residents are mostly concentrated in the villages, many of which are now becoming desirable housing areas for people who commute to, or have retired from, Clitheroe, Colne and Burnley.

The farming community has survived well and dominates the hill itself, as well as lower lying parts of Rimington, Sabden and Gisburn parishes. The AONB has already established a farmers network for the area, meeting 3 or 4 times a year and feeding into the LP scheme via the boundaries, woodlands and wildlife activity we are proposing. This is a thriving and active rural community, with a long history of self-reliance and resilience. See appendix 7 for more details.

4.12.2 Neighbouring Communities

The neighbouring communities to the LP area are many and varied. The population totals 229,333 people (2011 census) within 3.5km of the hill itself (ie within an hour's walking distance). As the history has described, this was once a very remote rural area later transformed by the industrial revolution, and yet until recently that connection with the land and the past was strong. Workers would escape from the polluted towns and climb the hill to reach clean air. Hundreds at a time would walk or cycle out on a Sunday to Roughlee and Happy Valley or to the Clarion House and other tearooms and pubs. The huge network of rights of way traces both the old connecting routes between farmsteads, and the paths leading out of towns to Pasture House, Noggarth, Heys Lane and onto the Hill itself.

The rivers separating the towns from the Hill – the Ribble and Calder – can be viewed as a corridor for both wildlife and people. The rivers acted as a source of power and water for the people living in the towns, and they still connect the source of Ogden Water on the very top of the Hill, flowing through the LP area, into the towns and on to join the Calder. This watery connection is one we will explore and interpret through our creative Gatherings woven through the LP scheme.

As described, the urban areas of 'Pennine Lancashire' developed in the 18th and 19th centuries in response to the industrial revolution. Burnley and Colne grew from small towns, whilst Nelson was largely a new settlement built to house the workers from a cluster of large mills. Since the 1960s and 70s the area has been in decline with the majority of manufacturing industry facing closure. Immigrant populations attracted to the mills from largely rural Pakistan since the 1950s have remained in the area and compared to other towns social integration is good here. Cultural attitudes to the natural landscape are different amongst this BAME community with little connection to the landscape or family history of trips to the countryside, and this is therefore a target population for the engagement work of the LP.

Industrial scale quarrying and cement works have eclipsed the market town of Clitheroe's 19th and early 20th century dependence on the textile industry, whilst Gisburn has always had its hub as a regional livestock market. Clitheroe, along with the rest of Ribble Valley is now a very affluent area of Lancashire and well connected to the cities of Preston and Manchester by road and rail.

Appendix 8 describes the community infrastructure we have discovered to date: many of the groups and organisations have already been involved in consultation and planning, and we plan to identify more 'hard to reach' groups and engage with them and others during the lifetime of the scheme.

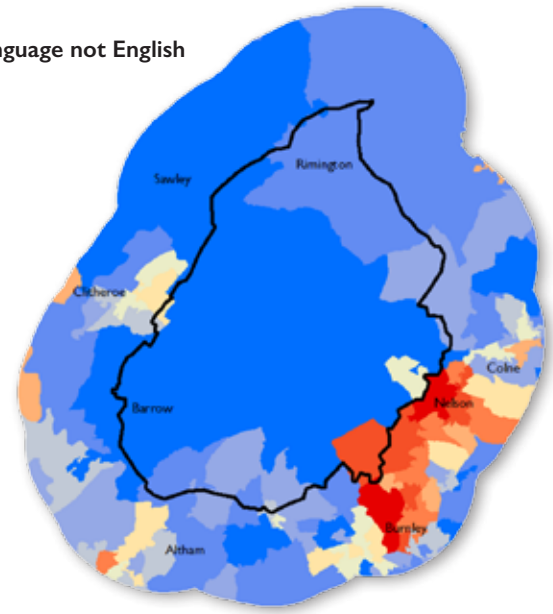
Pennine Lancashire is one of the most deprived parts of Lancashire and the northwest of England. This divide shows up when you look at deprivation indicators such as car ownership, ethnicity, employment, income and health across the LP area and in its hinterland:

Maps showing indicies of deprivation within Pendle Hill LP area and 3.5km from boundary

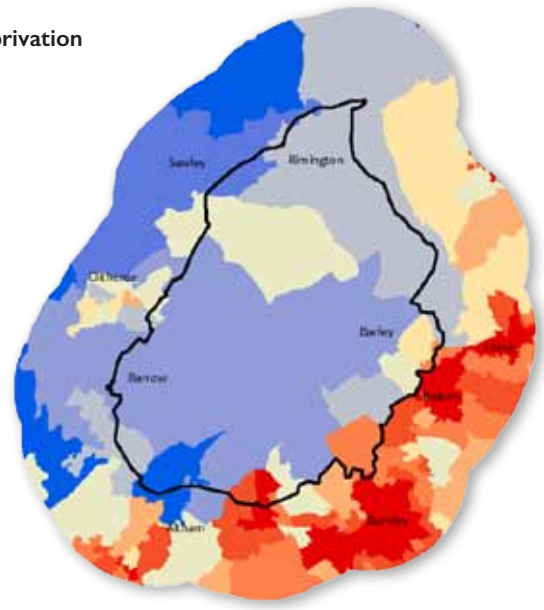
Rank relative to rest of England

- Lower 10%
- Lower 20%
- Lower 30%
- Lower 40%
- Lower 50%
- Upper 50%
- Upper 40%
- Upper 30%
- Upper 20%
- Upper 10%

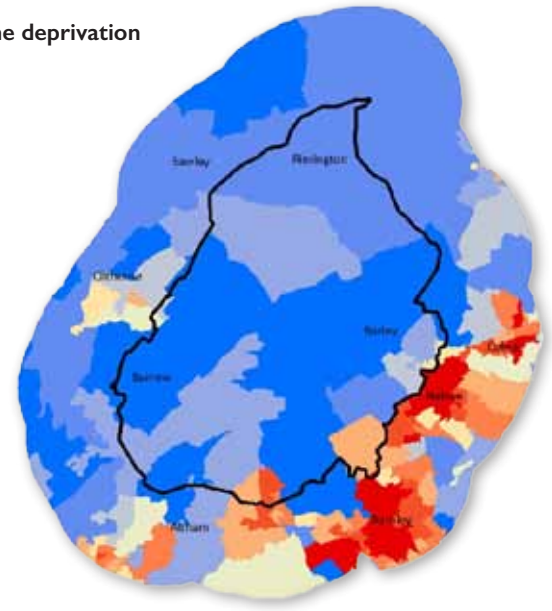
Main language not English



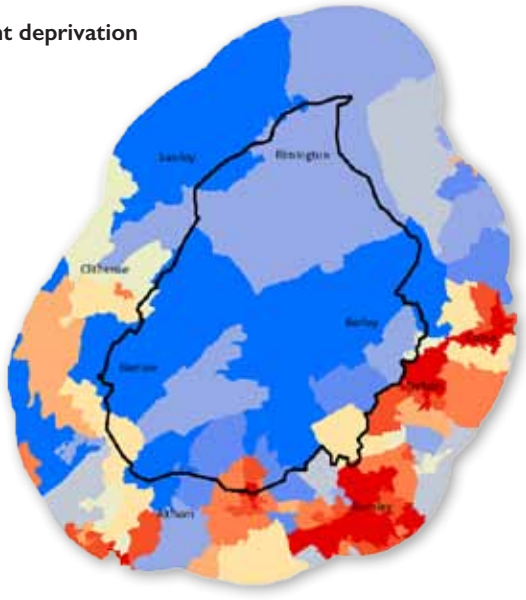
Health deprivation



Income deprivation



Employment deprivation



Sources: ONS (2001 & 2011), DCLG (2010)

4.12.3 Health and Wellbeing

As noted above, the connection between people and the landscape was once strong, but with changes in cultural attitudes and leisure time many people view the countryside as somewhere where there is 'nothing to do'. At the same time, we have seen increases in social isolation (often connected to increased life expectancy and to the loss of the nuclear family) and in obesity; along with higher incidences of anxiety and poor mental health.

In the UK, the annual cost to the taxpayer of dealing with mental illness is £105.2 billion: a huge amount. And yet evidence (Natural England, 2016) shows that there are considerable health benefits delivered through accessing good quality green space – like Pendle Hill. Locally, healthy walking initiatives already encourage people to take up gentle exercise, and we will aim to extend these and encourage a wider population into the LP area: encouraging people to get involved in volunteering sessions and in other heritage activities and events. It has already been shown that nature- based health intervention programmes deliver significant savings to the health service, and we will research this further through our People Enjoying Nature (PEN) project and the 'What's a Hill Worth?' research.

Our pilot PEN project is evaluated in the accompanying report, and some of the feedback from the Fields on Prescription work which ran in summer 2016 to assist in the development of our Audience Development Plan is shown below.

Fields on Prescription developed work started in previous years by Pendle Leisure Trust, where arts therapy and activity was added to the 'exercise on prescription' model. Our 'Fields' work took this a step further by offering service users the opportunity to join an art class led by an experienced teacher outdoors in the local Pendle Hill landscape.

Snapshots of the PEN Pilot project 2017: learning bushcraft skills and plant identification © (AONB)

There was a strong focus on empowering participants through a sense of reduced control from artists in order to let participants make their own individual decisions for their engagement- the only aspects set were the agenda, time and place. Direct teaching was limited, instead leaders offered suggestions and advice accordingly. This balance of input provided a purpose for participants' engagement in the landscape whilst proposed a situation of freedom, a space for reflection and a place of no expectations. Furthermore, this promoted personal experiences such as participants conducted the art work for themselves as opposed to for the leaders, as well as prohibited interference of the processes occurring.

Another form of engagement was through the social aspect of the projects. Following the project, participants wrote about their experiences, and often their comments did not relate to the artistic practice itself, rather forms of meaningful group involvement such as "I feel better, just because I've got someone to talk to" or "there's been a lot of laughing".

Psychological experiences of being outside conducting artist practices differed to those taking place inside, (for example, at The Shop). This was shown through a change in social engagement whereby conservations revolved around: nature, how they felt inspired by being outside, its peacefulness, how the outside had a calming influence, how they enjoyed its silence and quietness, how being in nature cleared their mind and how they felt tranquil and 'detoxed'. These conversations indicated the mental health benefits of exploring the landscape. Also mentioned within the feedback sessions following the projects, were that people slept better and felt less stressed.

Personal, spontaneous and physical engagement of the landscape was another different type of engagement which occurred as a result of a lack of restrictions. A 'little big moment' conveys how two people used this freedom on a particular day to walk off on their own devices away from the group and found a space for reflection at a site of personal interest. When the leader went over to them, they were relaxed and calm, connecting with their place in the landscape through being one with nature. Similarly, upon doing the artwork several participants found themselves spontaneously using the physical landscape for their artistic practices such as using grass for a green stain or washing their paintbrushes in the nearby river.

Trust was a critical element in increasing the participant's confidence to partake in different activities or in visiting places in the landscape they have not been before. Trust was developed over time within the group and with the leader as they learned more about each other and following previous positive experiences. Thus, the leader could suggest a different task and the participants felt comfortable in doing so, without reluctance- subsequently this built up their confidence. An interesting observation was found towards the end of the projects as participants began to converse with each other about having nothing to do, being retired and describing feelings of emptiness in their lives- this indicates the participants wanted to continue doing group artistic practices in the landscapes.

Evidence* shows the health benefits of access to good quality green spaces...

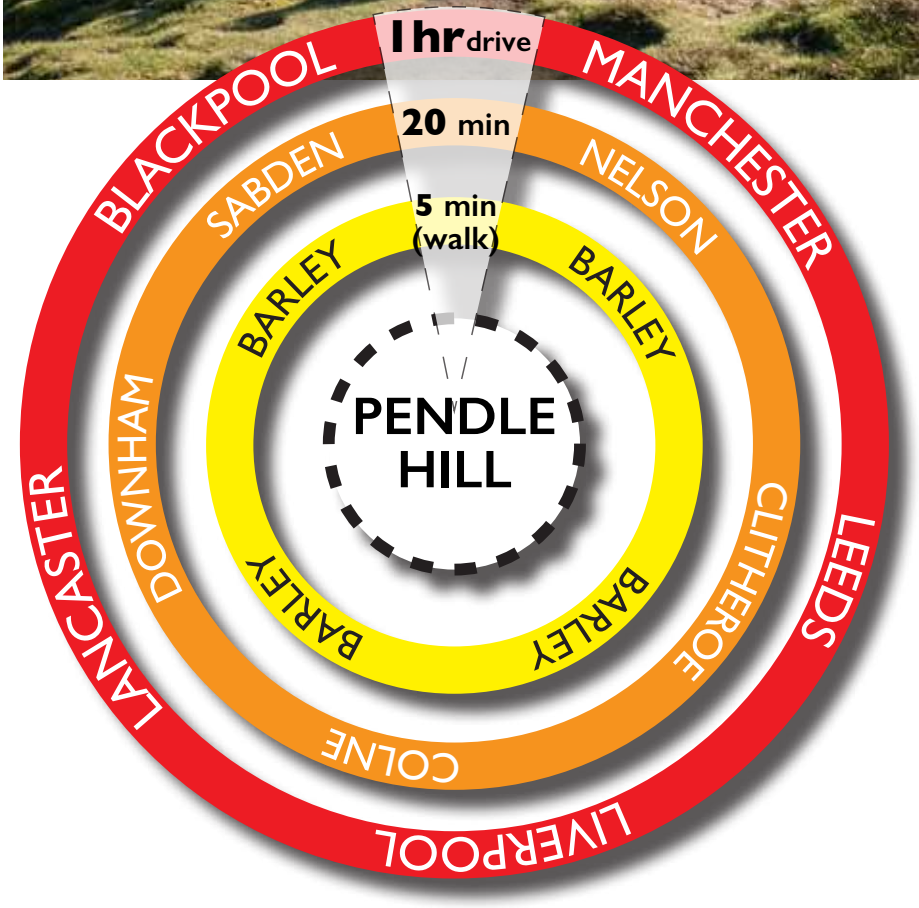
Transforming Mental Health and Dementia Provision with the Natural Environment Conference 2016

*Ref EIN018, EIN019, EIN020, EIN021

4.12.4 Visiting Communities

There is a population of just over 3 million people within 40km (or an hour's drive) of Pendle Hill. Appendix 9 provides an analysis of the visitors to the area as surveyed in 2014, 2016 and 2017.

Admiring the view from the summit



As might be expected the visiting communities have a strong demographic, being largely over 40, able-bodied and white. When compared to our neighbouring populations it is clear that large sections of the community - namely young people, people from Black, Asian and Minority Ethnic communities, and people with poor mental and physical health – are missing. That is not to say that these groups are never seen climbing the hill or visiting the villages as it has become more common in recent years to see families from BAME communities visiting the area for picnics and walks.

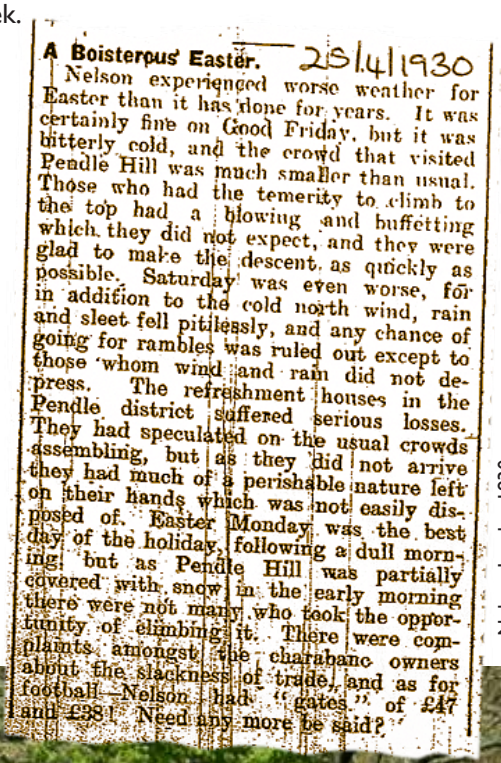
As part of our Audience Development Planning work several barriers to accessing the wider countryside were identified by focus groups, during activities such as PEN and Fields on Prescription and the Mums2Mums River Project. These 'barriers to participation' can be summarised as follows:

- Perceptions of difference – eg some areas seen as 'posh' and with high expectations of visitors; people also felt they 'stood out' as different, as with not having 'the right clothing' when visiting
- Lack of knowledge of where to go or what to do, what's 'allowed'
- Lack of a purpose, needing to be legitimate – just wanting to be there was not seen as enough reason to visit
- Costs of public transport and limited access to private alternatives
- Pressures on family time, opportunities to go out as a family or with the children are limited
- lack of experience of the countryside, either within the family or the community, concerns about dogs, cattle, mud, landowners etc.

In the summer of 2017 we carried out a limited number of observational surveys to ascertain the types and numbers of people reaching the summit of Pendle Hill. These were carried out at different times and on different days of the week, in and out of school holidays. The findings show that we can expect nearly 300,000 a year to reach the trig point.

4.13 The Visitor Economy

Pendle Hill has been a destination for walkers and cyclists since the days when millworkers would take a walk or ride into the hills for the fresh air and exercise. The Easter weekend (although often wet or even snowy) was a favourite 'pilgrimage' up the hill, and the area was also a popular destination for days out by charabanc (often an open top bus), especially for those who could not afford a trip to the seaside for the annual wakes week.



A Boisterous Easter. 28/4/1930

Nelson experienced worse weather for Easter than it has done for years. It was certainly fine on Good Friday, but it was bitterly cold, and the crowd that visited Pendle Hill was much smaller than usual. Those who had the temerity to climb to the top had a blowing and buffetting which they did not expect, and they were glad to make the descent as quickly as possible. Saturday was even worse, for in addition to the cold north wind, rain and sleet fell pitilessly, and any chance of going for rambles was ruled out except to those whom wind and rain did not depress. The refreshment houses in the Pendle district suffered serious losses. They had speculated on the usual crowds assembling, but as they did not arrive they had much of a perishable nature left on their hands which was not easily disposed of. Easter Monday was the best day of the holiday, following a dull morning, but as Pendle Hill was partially covered with snow in the early morning there were not many who took the opportunity of climbing it. There were complaints amongst the charabanc owners about the slackness of trade, and as for football—Nelson had "gates" of £47 and £38! Need any more be said?

Nelson Leader, 1930.

Downham village green

A 2017 scoping report of the LP area has identified that today the area attracts 770,000 visitor trips a year, generating an estimated £9.5million of annual direct expenditure. A breakdown of this market suggests the following make-up:

Segment	Description and characteristics	Approx. market size (share of visits)
Locals – mature couples / friends	Visitors from the local area itself, Ribble Valley and the M65 corridor. This group also includes people visiting friends and relatives. The group will be typically aged 55+, of various socio-economic groups (C1s are likely to be the modal group). These are very likely to be repeat or frequent visitors. Primary activities will be walking, and eating out.	**50%**
Locals – families	Similar to the previous in terms of origin and socio-economic groups. This group will contain children (probably mostly under 12 years). The focus of activity will be on a family day out (possibly with a wider family group including grandparents). Activities will include walking, pottering, picnics, eating out / ice cream. Probably repeat but not necessarily frequent visitors.	**15%**
Day visitors	These are visitors travelling from further afield – typically the rest of Lancashire, Greater Manchester and to a lesser extent North and West Yorkshire. They are most likely to be mature couples (or friends) visiting for a walk and meal out. Probably repeat but not frequent visitors.	**10%**
Tourists	These are leisure visitors staying in the Pendle Hill area – possibly as a base for the wider area. Or staying in the surrounding area and visiting Pendle Hill for the day. Likely to be more mature couples from higher socio-economic groups (Bs)	**10%**
Other / special interest	This is a mixed group comprising a number of different segments that probably each account for 1-2% of the overall Pendle market. This will include staying visitors – e.g. for business, and weddings – and day visitors coming for events, cycling etc.	**15%**

The LP area has a fairly undeveloped tourism infrastructure, with 53 tourism based businesses operating in 2017. The following types of businesses were identified:

- The majority of businesses are pubs (17). All of these offer food, 5 offer accommodation and 2 cater for weddings
- 7 B&B establishments. 2 of these also provide self catering accommodation (most of these are farm-based establishments, ie diversification businesses)
- 7 self-catering establishments
- 5 activity providers: 2 fisheries (one of which also provides accommodation in log cabins), a dry ski slope, narrow boat hire and an outdoor adventure centre
- 4 caravan parks – totalling 300 permanent pitches plus 137 privately owned caravans
- 4 shops: 2 ice-cream shops and 2 farm shops
- 3 cafés and 1 restaurant
- 3 visitor attractions: Witches Galore at Newchurch in Pendle, The Pendle Heritage Centre, which offers events and has a café and Whalley Abbey which also offers B&B accommodation
- 2 hotels, both of which cater for weddings and business tourism, with a total of 95 bed spaces

With regards to the types of products and activities that are on offer, the following themes / activities are promoted in the two Visitor Guides:

- **Distinctive towns and villages**
- **Food and drink**
- **Cycling**
- **Walking**
- **Weddings**
- **Star gazing**
- **Inspirational stories**
- **Healthy lifestyles and relaxation**
- **History and heritage**
- **A well-developed programme of events.**

With a strong day visitor market and many retirees visiting the area, the visitor numbers tend to follow the weather rather than the seasons. A nice cold dry Thursday in January can be every bit as busy as a sunny Sunday in July.

Ribble Valley is a popular area for weddings with a number of key hotels including Stirk House and Higher Trapp in the LP area involved in this market. For other venues, the view of Pendle Hill is often used as a wedding photo album backdrop.

'Food and Drink' is also a growing market – on both sides of the Hill. Clitheroe hosts an annual Food Festival each summer, attracting over 20,000 visitors in 2016. There are a rising number of 'gastro pubs' in and around the LP area including the Assheton Arms in Downham and the Freemasons at Wiswell which both made the UK top 10 list drawn up by the Guardian in 2017.

The area hosts a popular walking festival each August. Administered by Pendle Borough Council it offers free guided walks led by a group of experienced volunteers, and regularly attracts over 1000 visitors (2014 figures) during its 10 day duration. Analysis of walkers shows that the festival tends to attract locals and people living within the 40km zone and doesn't have a major impact on demand for accommodation.

Pendle Hill also hosts an annual Tractor Run and two key fell races – the Tour of Pendle held in November and the Pendle Fell race in April. There are a number of other fell races such as a 'Dark Dash' organised by the Mountain Rescue Team in March 2017; and cycle events also occur each year: in 2015 it hosted part of the Tour of Britain.

Tour of Britain 2015 Nick O' Pendle

CHAPTER 5. A LANDSCAPE UNDER THREAT – RISKS AND OPPORTUNITIES

5.1 Introduction

Pendle Hill is a landscape under threat. There has been a slow degradation and loss of character in the landscape and a reduction in the species from our moors, woods and hedgerows; there is neglect of boundaries, and an erosion of local building styles. Local skills, stories and traditions are in danger of being lost and forgotten. The Hill is both unknowingly important for residents, and an attraction for visitors and this can lead to its over use and neglect. However, this scheme provides us with a major opportunity to halt this decline, restore the fabric and heritage of the Hill, and to re-instil that old radical pride in our place.

There is a need to co-ordinate the management of heritage assets in the LP area, to bring the two sides of the Hill together in order to reduce the risk of no-one dealing with important issues. We will look at the Hill as one place, and aim to provide, for example, better structured and supported volunteering activities and a focus for activities not currently available.

There is also a massive opportunity to better connect Pendle Hill to adjacent urban neighbourhoods and to offer low cost solutions to health and social needs for local people experiencing disadvantage.

5.2 Environmental Threats and Opportunities

The landscape character assessments for the LP area (Forest of Bowland AONB, 2009 and Pendle Hill LP 2016) identify a number of physical threats facing Pendle Hill. In the past these have included:

- Erosion of gullies by water
- Footpath erosion
- Human habitation and exploitation of geological resources
- Lack of dry stone wall management
- Reduction in ecological value
- Suburbanisation of traditional farmsteads and villages
- Decline of mature hedgerow trees
- Amalgamation and decline of dairy farms
- Loss and decline of parkland features

In addition, current and future threats and their causes are identified as:

Threat	Main Causes
Increases in moorland fire and erosion	• Climate change
Spread of invasive and non-native species	• Climate change
Increase in tree and animal diseases	• Climate change
Increase in flash flooding, gully erosion and downstream flooding	• Climate change
Wall neglect, scrub increase, loss of field pattern	• Changes in funding leading to agricultural change
Increased tourist traffic on roads	• Pressure from development
Conversion of barns, loss of vernacular style and materials	• Changes in funding leading to agricultural change • Pressure from development
Uncertainty over future management	• Changes in funding leading to agricultural change • Pressure from development
Amalgamation of farms and construction of new agricultural buildings	• Changes in funding leading to agricultural change

The key causes of these threats and changes are

5.2.1 Climate Change

It is expected that the key changes we can expect to experience in the LP area as a result of climate change are:

Hotter, drier Summers – the central estimate of increase in summer mean temperature is 3.7°C and the central estimate of change in summer mean precipitation is -22%

Warmer, wetter Winters – the central estimate of increase in winter mean temperature is 2.6°C and the central estimate of change in winter mean precipitation is +16%

(UKCP09 headline messages for the north west of England, 2080s medium emissions scenario as in the Forest of Bowland Climate Change Adaptation Plan, 2011)

The impacts of these changes are likely to be:

- The drying out of soils and surfaces leading to destabilisation and erosion, particularly when also under pressure from humans and livestock and when flash flooding occurs
- Low flow in rivers leading to a loss of biodiversity (vegetation, invertebrates, fish, birds and mammals)
- Increased likelihood of fire damaging peat soils, archaeology and vegetation
- Gullying and erosion of peat, cloughs and soils leading to loss of vegetation, soils and downstream flooding
- Increased sensitivity to competition by invasive species and increase in plant and animal pests and diseases
- Drought leading to a shift in the composition of vegetation types and species, a reduction in diversity and a subsequent impact on wetland bird species
- Drought leading to an increase in bracken and molinia cover on upland slopes; drying up of flushes and springs affecting vegetation, invertebrates and birds
- Loss of frost events causing a reduction in some species and an increase in others
- Longer growing season leading to changes in agriculture and a shift in some habitats eg loss of swamp, woodland succession and scrub invasion

The habitats and assets in the LP area which we expect to be most vulnerable to these changes are blanket bog, purple moor grass and rush pasture, upland hay meadows, wet woodlands, upland springs and flushes, the ground flora of lowland mixed woodlands, acid upland soils, buried archaeology, designed landscapes, fisheries, and footpaths and bridleways.

A case of ash die back © Phil Dykes

The main response that we can make to these changes, many of which we are already experiencing, is to attempt to increase the resilience of natural habitats wherever we can. We can do this by connecting up ecological networks to strengthen them and to enable species to move around; and by improving the structure and management of important sites and habitats to bring them into good condition, and therefore more likely to be able to be resilient to the extremes of the new climate.

We will also look to tackle increased risks of flooding (see appendix 3) through utilising natural methods of 'slowing the flow', such as installing woody debris in water courses, blocking gullies in the peatland and blanket bogs, and restoring traditional boundaries which intersect significant streams of overland flow. (see appendix 5a for details).

Major opportunities in the LP area are to:

- Restore our blanket bog (peatland restoration)
- Revert to traditional management of pasture and meadows (high nature value farming) by maintaining wet areas, reducing inputs and changing stocking rates and cutting regimes
- Better manage and extend our woodlands
- Replace trees and woodlands lost to disease
- Restore and create boundaries and woodlands which assist with natural flood risk management
- Strategically remove invasive non-native species and replace lost species with native and resilient alternatives
- Support the Pendle Hill farmers network with training needs and in delivering landscape scale changes
- Introduce natural flood management

Newly planted bare peat © AONB

Peatland restoration on the Bowland fells © AONB

5.2.2 Changes in Funding, Policies and Markets Leading to Agricultural Change

Just as historical changes led to landscape and agricultural change in the form of the development of forest, enclosures and estate development, so too have changes in the 20th and early 21st centuries. Since 1945, Government incentives have encouraged farmers to increase production, to modernise and meet regulations, and more latterly through agri-environment grants, to begin to introduce conservation measures. The imminent loss of European farming subsidies will doubtless lead to further changes.

Changes in consumer trends, the rise of the supermarket and export markets, increased mechanisation, the introduction of gene technology, and general intensification of farming will also have an impact.

Key changes we can see due to these forces in the LP area include:

Changes Caused By Funding, Policies, and Markets	Environmental Impacts
Over and under grazing	• Encroachment of scrub and bracken, loss of heather and bilberry moor, loss of blanket bog and peatland
Marginalisation of upland hill farming leading to loss of labour and investment	• Neglect of traditional boundaries, loss of shepherding tradition, reduction in active commoners
Increased number and earlier cuts of grassland, compounded by increased fertilisation, ploughing and re-seeding to produce more silage and haylage for winter feed	• Loss of species mix and diversity, leading to loss of invertebrates, birds and mammals • Soil compaction and erosion • Removal of hedgerows and walls to increase field size and ease of cutting
Improvement of pasture by fertilising and drainage	• Loss of wet flushes and wet grassland leading to loss of species and diversity of vegetation, invertebrates, birds and mammals
Pressures on dairy farming economics leading to larger units, farm amalgamation, increased use of genetics, antibiotics, scientific nutrition and year-round or winter housing of livestock	• New agricultural buildings • Changes in livestock numbers and breeds • Increased use of slurry on fields leading to soil compaction and species loss
Decline in farm labouring, increased mechanisation	• Loss of maintenance of traditional boundaries and woodlands • Loss of rural skills • Loss of smaller scale activity and responsiveness • Over maturity of parkland trees and poor management of hedgerows

The main steps that we can take in response to these changes are to support and encourage farmers to re-introduce high nature value farming wherever this is economically viable, in some cases by diversifying and responding to these very same consumer trends and market changes (eg organic farming, raw milk production, traditional breeds)

Major opportunities in the LP area are to:

- Restore species-rich grasslands
- Encourage breeding wader birds through changes in land management
- Restore traditional pasture
- Manage woodlands
- Restore traditional boundaries and the skills needed to do so
- Support the Pendle Hill farmers' network with training needs, and delivering landscape scale changes

5.2.3 Pressure from Development

We have identified a number of changes in the landscape caused by increased visitor use of the area and pressures for development:

The main response that we can make to these changes are to support efforts to disperse the impacts of visitors over a wider area; improve information for, and education of visitors; and to promote the understanding of local distinctiveness and the value of sensitive development.

Major opportunities in the LP area are to:

- Improve the signage for footpaths and bridleways
- Raise visitor awareness of alternative routes and interpret sites of heritage interest
- Encourage visitor donations to support environmental improvements (Pendle Hill Fund)

5.3 Economic Changes, Threats and Opportunities

Through consultation and research, we have identified that a lack of investment in our heritage is beginning to detract from the value and quality of the landscape. The key concerns are:

- There is a continuing reduction in funding for countryside access and management (maintenance of information and physical infrastructure) and a need to find alternative sources of investment
- There is a lack of investment in, and valuing of, rural skills – and a consequent shortage of skilled crafts workers
- Existing agri-environment agreements which support conservation measures on farm land are coming to an end and the future, outside of the EU, is very uncertain
- There is a lack of opportunity and aspiration for young people to access environmental training and work experience in the rural area

Causes	Environmental Impacts
Increased visitor use of the area	• Disturbance of ground nesting birds on in-bye land and moorland hills • Caravan park development • Increased traffic on narrow lanes, congestion in villages • Erosion of footpaths and sensitive sites (eg peatland and archaeological sites) • Some conflicts with farmers (eg sheep worrying, gates left open, walls knocked down)
Pressures for development	• Solar farms, wind turbines, communication masts, power lines and telephone wires visible in the landscape • Use of non-local brick and stone, unsympathetic renovation of traditional buildings (eg replacement doors and window frames, re-roofing) and loss of traditional skills (eg lime mortaring)

Car parking congestion on Downham Road, Barley

A trainee learning how to lay a hedge © AONB

- There is a lack of awareness of the value of the landscape and heritage. Pendle Hill's natural capital, ie the economic value it offers to the local economy and society, is unknown and therefore undervalued
- Our visitor profile is a narrow segment of the neighbouring residential population, we need to encourage more young people and people from a wider background, to visit in order to sustain numbers into the future
- Our visitor economy is fairly under-developed – it is reliant on day trippers and walkers - and the product on offer is limited to witches, ice cream, gastro pubs or tearooms.

Major opportunities in the LP area are to:

- Re invest in countryside access to improve the infrastructure for visitors and encourage a deeper engagement in the area's heritage
- Provide opportunities for businesses and visitors to donate to the Pendle Hill Fund in order to provide long term investment in local heritage
- Provide opportunities for people to learn rural skills and keep the crafts alive
- Provide opportunities for young people to gain training and work experience in rural employment
- Explore new approaches to supporting farmers to undertake 'high nature value farming'
- Carry out research into the value which the Hill offers to health and wellbeing as well as its physical benefits including water provision, flood mitigation and carbon storage. If we can put a price on that value it can be factored in when agencies make decisions about the need for investment in the landscape
- Support tourism businesses in developing a 'sense of place' around Pendle Hill, promoting and being proud of the local heritage assets and including more than witches in their promotion to visitors.

5.4 Everyone – Threats and Opportunities

As shown in chapter 4, there is a neighbouring community of nearly 250,000 people living within an hour's walk of Pendle Hill; and over 3 million within 40km (or one hour's drive).

Pendle Hill has a strong presence in the area, with many people seeing it daily and having a strong affinity with it. The area is well used for exercise and recreation, and it is also valued for quiet contemplation, spiritual renewal and inspiration.

Despite this, the connections between people and the place and the past - the actual engagement with the area's heritage - is quite low. Most people visit for a walk, a chat, a meal or a drink. There is little understanding, beyond the Witches and maybe George Fox, of what heritage the Hill possesses. There are also large sectors of the neighbouring community who do visit the LP area (see Audience Development Plan).

Through consultation and discussion we have identified the following threats:

- A lack of knowledge about local history, and the significant people and places associated with the Hill. An ageing demographic dominates our local history groups and societies
- A lack of understanding about rural crafts and farming traditions amongst residents and visitors
- Falling levels of knowledge about the natural world, leading to a reduced number of recordings and sightings
- A change in the use of family leisure time
- The difficulties some people face in accessing the countryside and engaging in activity
- A lack of awareness of the health and wellbeing benefits brought by a trip to the countryside

In addition, the Pendle side of the Hill in particular suffers from severe economic disadvantage:

There is a need to increase educational attainment, training and employment opportunities in the heritage and land management sectors, at both apprentice and graduate levels. Aspirations amongst our young people are low and GCSE achievement is 10% below the national average with one fifth of communities lying in the lowest 10% of educational deprivation nationally.

There is an opportunity to offer access to our heritage as a low-cost solution to health and social needs. Pendle Borough has higher than national and county averages for child poverty, smoking, alcohol and drug abuse, and 28% of our communities lie within the 10% most health deprived nationally. Our programme can provide opportunities for the 49% of adults who are currently (2014) physically inactive with an increased risk of diabetes and cardiovascular diseases, causing life expectancy to be 1.5 to 2 years lower than the national average. Over 65s in Pendle say that lack of exercise has the biggest negative impact on their health, and 29% of all Pendle residents agree.

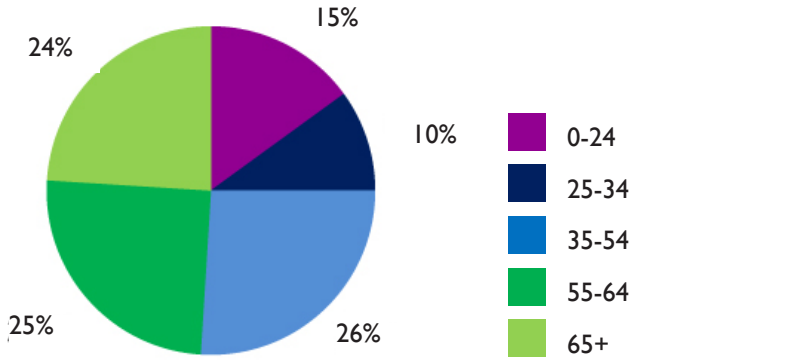
Current per capita spend on arts in the Pendle Hill area is below the national and regional averages.

5.4.1 Audience Development: 'more and a wider range of people'

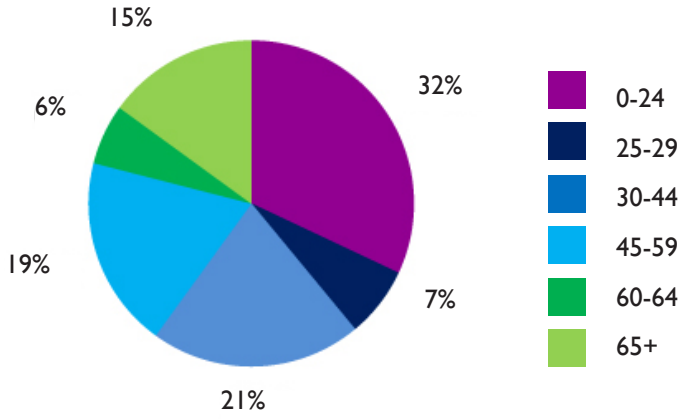
Our Visitor Surveys suggest that the profile of users of the hill does not reflect the profile of local communities. However, recent resident perception surveys show that 30% of Pendle and 51% of Ribble Valley residents feel that access to nature is an important service (ranked 5th and 4th respectively in the most important out of 20 issues.) This means that although many people value the hill, some of them aren't able to access its opportunities.

Brierfield Action Group reach the summit © (In-Situ)

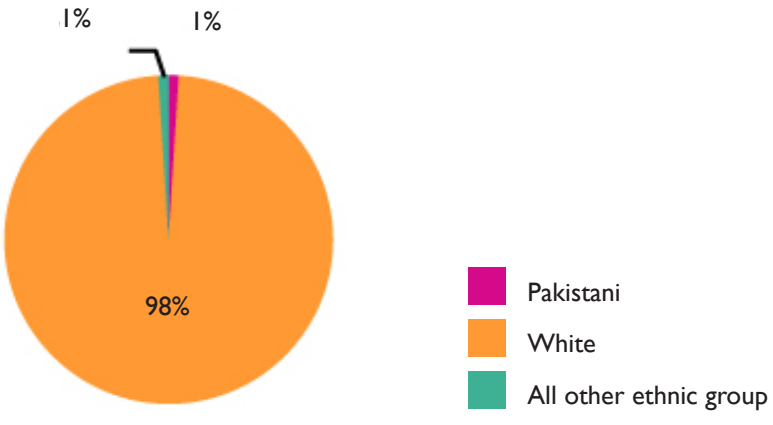
Pie Chart to show the age demographics of the population visiting the Pendle Hill landscape; taken from the visitor survey results from 2014 and 2016.



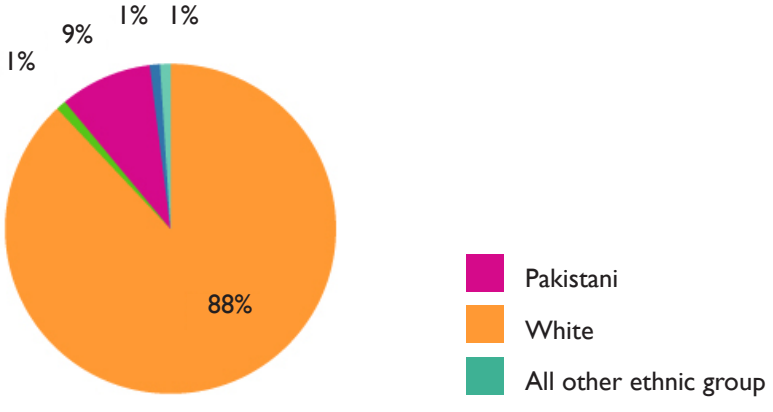
Pie Chart to show the average age demographics of the population living within a 3.5km radius of the Landscape Partnership area; sourced from the 2011 census.



Pie chart to show the ethnicity demographics of the population visiting the Pendle Hill landscape; taken from the visitor survey results 2016



Pie chart to show the average ethnicity demographics of the population living within a 3.5km radius of the Landscape Partnership area; sourced from the 2011 census



We will look to address these issues in a number of ways. Our Audience Development Plan and Community Engagement Toolkit will help project managers to identify key audiences and ways in which to engage with different groups and communities:

We will provide opportunities for **Community Engagement** – there will be chances for people to get involved, to volunteer, carry out research, receive training, explore the wider area, enjoy events, learn from experts, and help save our heritage.

We will focus on **Creative Engagement** – working with artists and craft workers enables heritage projects to attract wider audiences than offering heritage alone. There will be opportunities for creative expression, inspiration, and the re-telling stories in new ways.

We want to provide **Digital Engagement** – in order to engage with tech-savvy young people we are introducing Pendlefolk.com as a new digital platform with a contemporary feel. There will be greater virtual engagement so not everyone has to climb the hill, and there will be opportunity for explorers to gather their own personalised digital information.

In order to deliver **Wider Engagement** we will provide supported activity for people dealing with mental health issues and social isolation through our PEN project (People Enjoying Nature, in partnership with the NHS) – giving them support and confidence in enjoying the landscape, for their own wellbeing and for the future.

Our target audiences to engage are:

- Black and Asian Minority Ethnic (BAME)
- Young people (under 25)
- And a range of 'hard to reach' groups

Our overall aim will be to engage more widely with these groups, offering opportunities for them to engage in LP events and activities, and also opportunities to utilise travel bursaries so that groups from these target audiences can get involved in volunteering. Our hope is that in time the pie chart of visitor demographics more closely reflects the demographics of our neighbouring communities.

Faize, of Mum2Mums group enjoying the Rivers Project © (In-Situ)

PEN Pilot project participants meet Alice Nutter in Roughlee © (AONB)

5.5 Delivery of activity

Our Scheme Delivery Plan, a suite of 15 projects, has therefore developed out of the identified threats and opportunities shown below. The projects are described in more detail in parts 2 and 3 of the LCAP.

Threat	Opportunity	Project Ideas
1. Loss of landscape features and species diversity. Slow degradation and loss of landscape character and features (eg dry stone walls); intensification of farming leading to loss of species diversity and fragmentation of habitats; modernisation and suburbanisation of housing eroding the area's character and sense of place.	• Restore features (natural and historic) • Encourage nature friendly farming • Manage the best wildlife sites better and extend them if possible • Encourage traditional skills • Celebrate a sense of place	• Traditional Boundaries – restoration and training • Wild about Pendle Hill • Pendle WINNS • Pendle Hill Fund – landscape and heritage grants for the community
2. Erosion, conflict and congestion: over-concentration of visitors in some villages and on certain routes, leading to path erosion, conflict with farmers and landowners. Over-reliance on private cars leading to congestion, erosion and pollution.	• Disperse visitors and spread benefits to other areas • Reduce erosion and damage • Interpret and signpost alternative routes • Maximise the opportunity of existing 'gateways' and utilise public transport • Encourage cycling and walking	• Access for All – improving key routes and visitor gateways • Discover Pendle Hill
3. People losing touch with the past: a slow loss of knowledge and understanding about the historical significance of the place and its people caused by changes in education and use of leisure time; local stories are being lost and forgotten; membership of local groups can be limited and narrow.	• Encourage research, to educate and inspire people • Provide training and support to develop skills and knowledge • Make links between local history groups and extend membership with outreach work and new technology • Education about local distinctiveness and sense of place	• Community Archaeology • Pendle Radicals • Pendle Hill Fund – landscape and heritage grants for the community • Interpretation • Volunteering & Learning
4. People losing touch with the landscape: lack of traditional skills and knowledge due to changes in education and in farming practice; fewer people inspired by nature so fewer enthusiasts for the future; children and some sectors of urban communities finding it difficult to explore the countryside, leading to low levels of understanding, and low levels of exercise and wellbeing.	• Provide guidance, inspiration and support to people who do not normally visit • Provide training and education in recording, conserving and enjoying wildlife and geology • Provide outreach opportunities to engage with urban residents • Develop care and a sense of identity for the area	• Trainees • PEN project – supported visits for people experiencing mental health and social isolation issues • Volunteering & Learning • Interpretation
5. Reduced finance for recreation, heritage and wildlife conservation caused by reductions in central and local government funding.	• Identify new sustainable sources of income and systems to support community-led activity into the future	• Pendle Hill Fund – support visitor giving • What's a Hill Worth? – valuing ecosystems services

5.6 Future Aspirations

To recap, our aims for the 4 year Landscape Partnership Scheme for Pendle Hill are:

A. To restore, enhance and conserve the heritage and landscape quality of Pendle Hill

B. To re-connect people with the landscape

C. To re-connect people and the past

D. To bring together the two sides of the Hill

E. To create a sustainable future for the environment, heritage and for visitors' experience of Pendle Hill

So, our vision for the future will be a better managed and higher quality landscape, where people feel more connected to the landscape, and a wider variety of people from neighbouring communities are seen out in that landscape. We hope that farmers and landowners will be providing 'public goods' in the form of quality access, healthy habitats and sustainable management of soil, peat and woodland.

We also expect people to have a greater connection to the heritage of the Hill, to be inquisitive and knowledgeable about our radical ancestors, and the prehistoric people who settled here in the Iron Age and after.

We hope that communities from both sides of the Hill will gather together to celebrate its special sense of place, to enjoy activities led by local groups and multi-faith partnerships; and for Pendle to be a place where people can invest in their physical health and gain spiritual renewal.

For a statement about scheme legacy planning, please see section 4 of the LCAP.

The Pendle Hill LP Board

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The Ribble Valley side of the Hill

FOREST OF BOWLAND
Area of Outstanding Natural Beauty

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