

# 35. Lancashire Valleys

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## Introduction

As part of Natural England's responsibilities as set out in the Natural Environment White Paper<sup>1</sup>, Biodiversity 2020<sup>2</sup> and the European Landscape Convention<sup>3</sup>, we are revising profiles for England's 159 National Character Areas (NCAs). These are areas that share similar landscape characteristics, and which follow natural lines in the landscape rather than administrative boundaries, making them a good decision-making framework for the natural environment.

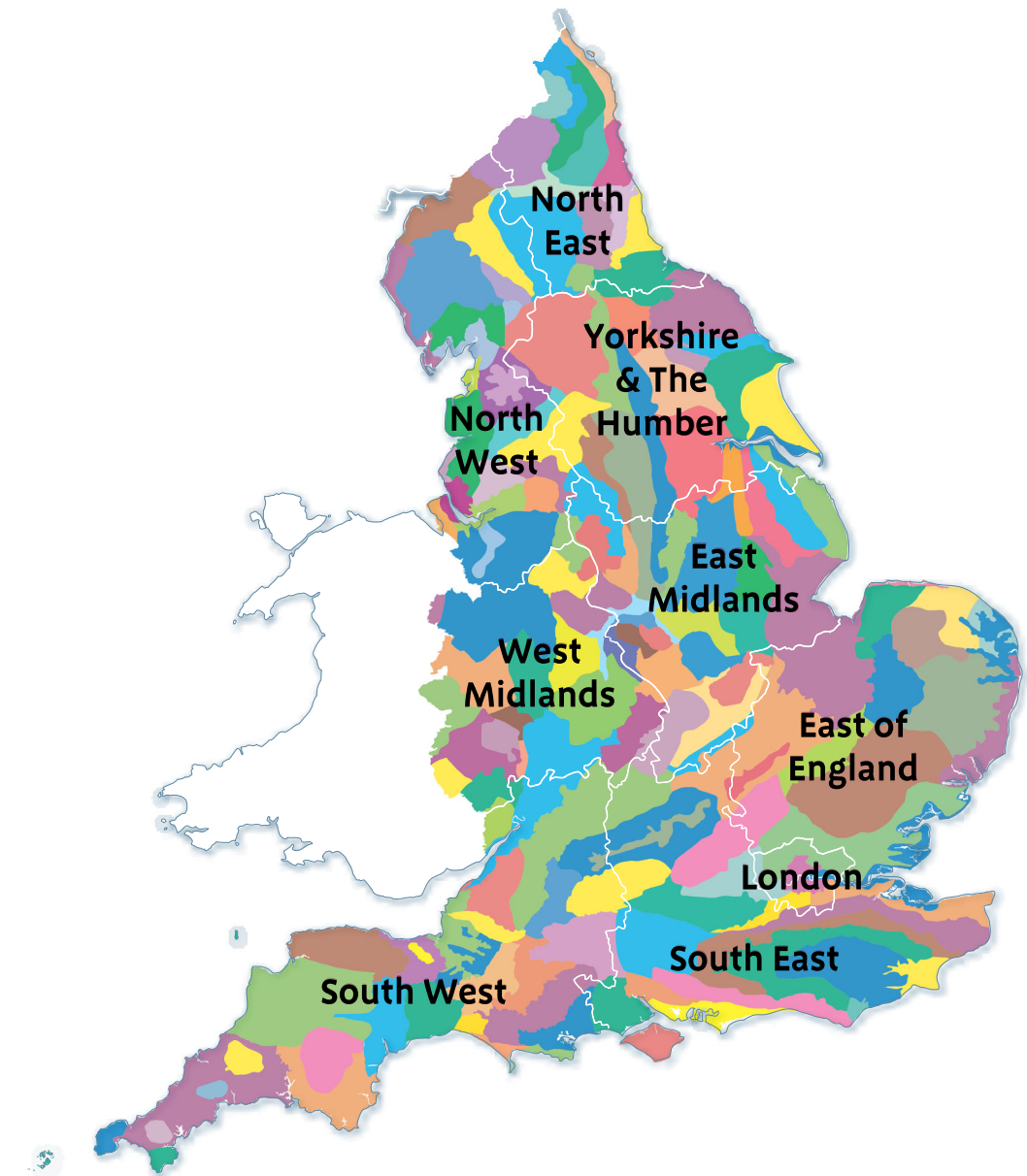
NCA profiles are guidance documents which can help communities to inform their decision-making about the places that they live in and care for. The information they contain will support the planning of conservation initiatives at a landscape scale, inform the delivery of Nature Improvement Areas and encourage broader partnership working through Local Nature Partnerships. The profiles will also help to inform choices about how land is managed and can change.

Each profile includes a description of the natural and cultural features that shape our landscapes, how the landscape has changed over time, the current key drivers for ongoing change, and a broad analysis of each area's characteristics and ecosystem services. Statements of Environmental Opportunity (SEOs) are suggested, which draw on this integrated information. The SEOs offer guidance on the critical issues, which could help to achieve sustainable growth and a more secure environmental future.

NCA profiles are working documents which draw on current evidence and knowledge. We will aim to refresh and update them periodically as new information becomes available to us.

We would like to hear how useful the NCA profiles are to you. You can contact the NCA team by emailing [ncaprofiles@naturalengland.org.uk](mailto:ncaprofiles@naturalengland.org.uk)

## National Character Areas map



<sup>1</sup> The Natural Choice: Securing the Value of Nature, Defra (2011; URL: [www.official-documents.gov.uk/document/cm80/8082/8082.pdf](http://www.official-documents.gov.uk/document/cm80/8082/8082.pdf))

<sup>2</sup> Biodiversity 2020: A Strategy for England's Wildlife and Ecosystem Services, Defra (2011; URL: [www.defra.gov.uk/publications/files/pb13583-biodiversity-strategy-2020-111111.pdf](http://www.defra.gov.uk/publications/files/pb13583-biodiversity-strategy-2020-111111.pdf))

<sup>3</sup> European Landscape Convention, Council of Europe (2000; URL: <http://conventions.coe.int/Treaty/en/Treaties/Html/176.htm>)

## Summary

The Lancashire Valleys run north-east from Chorley through Blackburn and Burnley to Colne. The National Character Area (NCA) lies mainly in east Lancashire and is bounded to the north-west by the Bowland Fells fringe and the Millstone Grit outcrop of Pendle Hill, and to the south by the Southern Pennines. A small proportion of the area (5 per cent) lies in the Forest of Bowland Area of Outstanding Natural Beauty.

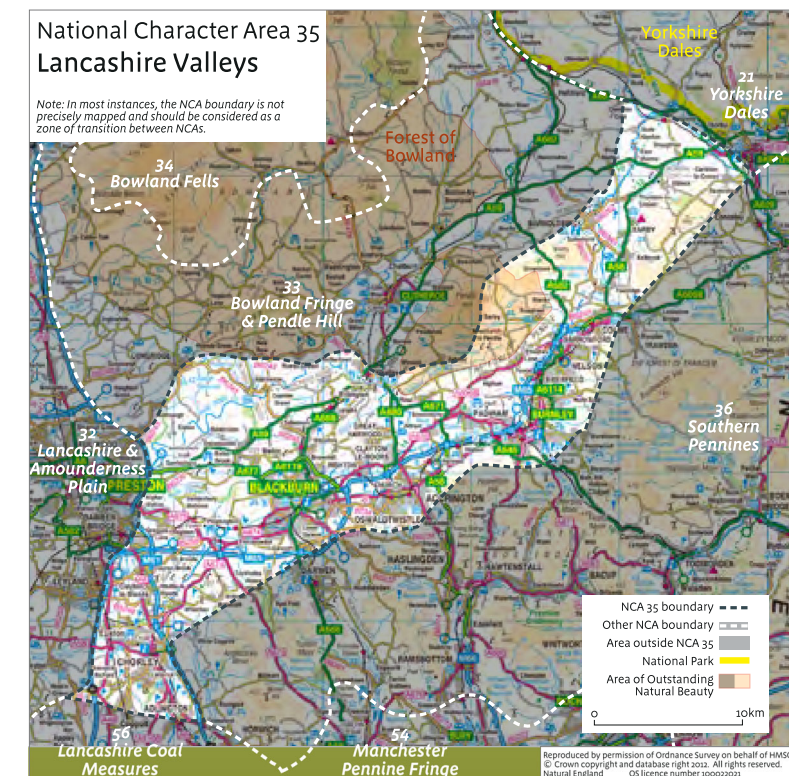
The Lancashire Valleys broadly consist of the wide vale of the rivers Ribble and Calder and their tributaries, running north-east to south-west between the natural backdrops of Pendle Hill and the Southern Pennines. This visually contained landscape has a strong urban character.

The Lancashire Valleys are underlain by Carboniferous rocks including limestone, Millstone Grit, shales and Coal Measures. The bedrock is largely covered by glacial and post-glacial deposits of sands, gravels, clays and alluvium. Localised surface exposures of bedrock have given rise to extractive industries, including stone quarrying and coal mining.

The Industrial Revolution saw the development and expansion of the major settlements, which include Blackburn, Accrington, Burnley, Nelson and Colne. A small 'cottage' cotton and textile industry developed, first drawn to the area for its available water power. It developed rapidly but has been in steady decline since the 1920s. The towns are dominated by mills and Victorian-stone terraced housing. Numerous examples of the area's industrial heritage remain, and are matched today by substantial areas of contemporary industrial development.

Agriculture, once the major source of income before industrialisation, is now fragmented by the built environment, industry and housing. The remaining pockets of farmed land, used for extensive livestock rearing, are concentrated along the Ribble Valley, the fringes of Pendle Hill, the area to the west of Blackburn, and in the north around Skipton.

Opportunities for recreation activities are provided by a network of public rights of way, including key routes along the Pennine Bridleway and Pennine Way National Trails, while a series of country parks and local nature reserves also provide quality green space to encourage visitors to engage with and enjoy the local environment.



Click map to enlarge; click again to reduce.



A former mill lodge - Big Lodge, Yarrow Valley Country Park.

## Statements of Environmental Opportunity

- **SEO 1:** Conserve and manage the Lancashire Valleys' industrial heritage to safeguard the strong cultural identity and heritage of the textile industry with its distinctive sense of place and history.
- **SEO 2:** Increase the resilience and significance of woodland and trees, and manage and expand existing tree cover to provide a range of benefits, including helping to assimilate new infrastructure; reconnecting fragmented habitats and landscape features; storing carbon; and providing fuel, wood products, shelter and recreational opportunities.
- **SEO 3:** Manage and support the agricultural landscape through conserving, enhancing, linking and expanding the habitat network, and manage and plan for the associated potential impact of urban fringe development, intensive agriculture and climate change mitigation.
- **SEO 4:** Conserve and manage the distinction between small rural settlements and the densely urban areas and ensure that new development is sensitively designed to contribute to settlement character, reduce the impact of the urban fringe and provide well-designed green infrastructure to enhance recreation, biodiversity and water flow regulation.

## Description

### Physical and functional links to other National Character Areas

The Lancashire Valleys National Character Area (NCA) broadly consists of the wide vale of the rivers Calder and Ribble and their tributaries, running north-east to south-west between Pendle Hill, the Bowland Fells and the Southern Pennines. Although similar in nature conservation terms to the Lancashire and Amounderness Plain and the Morecambe Coast and Lune Estuary NCAs, the landscape here has a contrasting, intensely urban character.

The Millstone Grit outcrop of Pendle Hill, which forms part of the northern boundary to this area, and the fells of the Southern Pennines to the south create enclosure and serve as a backdrop to the settlements in the valley bottom. Similarly, there are views out from the higher land to the north and south over the NCA.

The north-west of the NCA contains part of the middle section of the River Ribble, which has its source in the adjacent Yorkshire Dales NCA, as well as the Ribble's confluence with the River Hodder, which drains the southern slopes of the Bowland Fells NCA. In the south, the River Yarrow rises on Rivington Moor in the Southern Pennines NCA before joining the River Douglas in the Lancashire and Amounderness Plain NCA to the west. A number of reservoirs lie on or close to the boundary with adjacent NCAs.

Many important communication routes pass through the NCA, including the Leeds and Liverpool Canal, the Preston–Colne rail link and the M6, M61 and M65 motorways.



River Ribble at Salmsbury Bottoms.

## Key characteristics

- Broad valleys of the rivers Calder and Ribble and their tributaries run north-east to south-west between the uplands of Pendle Hill and the Southern Pennines.
- A Millstone Grit ridge extends between the Ribble and Calder catchments (including the Mellor Ridge and part of Pendle Hill).
- A broad trough underlain by Carboniferous Coal Measures provided the basis for early industrialisation.
- Field boundaries are regular to the west and more irregular to the east. They are formed by hedges with few hedgerow trees and by stone walls and post-and-wire fences at higher elevations.
- Agricultural land is fragmented by towns, villages and hamlets, industry and scattered development, with pockets of farmed land limited to along the Ribble Valley, the fringes of Pendle Hill, the area to the west of Blackburn, and in the north around Skipton.
- Farmed land is predominantly pasture for grazing livestock, with areas of acid and neutral grassland, flushes and mires. There is some upland heath and rough pasture on Pendle Hill and the higher land to the south.
- Small, often ancient, broadleaved woodlands of oak, alder and sycamore extend along narrow, steep-sided cloughs on the valley sides – for example, at Priestley Clough, Spurn Clough and south of Blackburn.
- There are numerous large country houses with associated parklands, particularly on the northern valley sides away from major urban areas.
- There are many examples of proto-industrial heritage, including lime hushings, important turnpike and pack-horse routes involved in the early textile trade, and rural settlements with handloom weavers' cottages.

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Traditional stone-built weavers' cottages.

## Key characteristics continued

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- There is evidence of a strong industrial heritage associated with the cotton weaving and textile industries, with many common artefacts such as mill buildings, mill lodges and ponds, and links to the Leeds and Liverpool Canal.
- The many towns, including Blackburn, Accrington and Burnley, which developed as a result of the Industrial Revolution give the area a strong urban character.
- Robust Victorian architecture of municipal buildings contrasts with the vernacular sandstone grit buildings of the quiet rural settlements on the valley sides.
- Numerous communication routes run along the valley bottoms, including the Leeds and Liverpool Canal, the Preston–Colne railway and the M65 motorway.

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## Lancashire Valleys today

The Lancashire Valleys are concentrated in a broad trough that runs north-eastwards from Chorley to Skipton.



Leeds to Liverpool Canal, passing through agricultural land near the M61, Chorley.

This is a visually contained landscape that would have once shared many characteristics with the rural valley of the River Ribble in the north. However, the development of industry and settlements has created a landscape with a strongly urban character. Agricultural land is now heavily fragmented by towns, associated housing, industry and scattered development.

Major settlements occur within the Lancashire Valleys. There is a high proportion of built-up land which includes the towns of Blackburn, Accrington, Burnley, Nelson and Colne. The rapid expansion of these towns following the Industrial Revolution has also been aided by the development of dense transport and communications networks following the valley bottoms. These include the Leeds and Liverpool Canal, the Preston–Colne rail link, the M65 and the M6/M61 motorways running north–south at the western end. The towns are dominated by a robust Victorian architecture with stone terraces and municipal buildings generally in good condition. Numerous artefacts and buildings associated with the area’s development and industrial heritage remain and are reminders of the historical importance of local industrial development to the character of the landscape. There are substantial areas of contemporary industrial development which have replaced the traditional textile industries.

Scattered villages and hamlets on valley sides are comprised of older sandstone grit buildings, often of the longhouse type, and isolated rows of stone terraced houses are perched at precarious angles on the steep slopes. There are several large country houses with associated parkland built for wealthy mill owners of the textile industry. These are mainly located on south-facing slopes in the Calder Valley away from major urban areas, including those at Read Park Huntroyde Demesne, Gawthorpe, Dunkenhalgh and Towneley Halls.

The remaining fragmented farmland is a mix of pasture with scattered areas of acid and neutral grassland and areas of semi-natural woodland/scrub. Wet grasslands are common on the flood plains and river banks of the Ribble and Calder, and provide valuable habitat for populations of butterflies and birds, including snipe, curlew, redshank and lapwing. Species-rich hay meadows are becoming less common throughout the area with the application of modern agricultural techniques. Lowland field boundaries are marked by hedgerows with few hedgerow trees, which give way to stone walls and fencing on higher ground. The higher land along the southern slopes of the NCA and Pendle Hill in the north includes small but valuable areas of upland heath and acid grassland.

Small broadleaved woodlands, often ancient, are scattered throughout the remaining farmland associated with rivers, field boundaries and cloughs. The wooded, steep-sided and narrow cloughs are a characteristic feature of the Lancashire Valleys – for example; Priestly Clough, Accrington; Spurn Clough, Burnley; and lower Darwen Valley which comprises of oak, alder and sycamore with areas of grassland flushes and wetland. Wood anemone, herb Paris and small-leaved lime are all typical species in these areas. Wet woodlands dominated by alder occur on the flood plains and river banks. There are also small areas of woodland/scrub associated with abandoned or reclaimed industrial land and several small conifer plantations, the largest being Standrise Plantation associated with Elslack Reservoir to the north-east of Colne.

The rivers Calder and Ribble and their tributaries, along with the Leeds and Liverpool Canal, support valuable plant communities as well as populations of birds. The goosander, coot, grebe and warbler are all common; and rare, great crested newt and otter can also be found. The Ribble catchment, including the Calder, is a major salmonid river, one of a top handful in England

and Wales. River quality and associated biodiversity have improved over recent years, but parts of the Calder and lower Darwen, in particular, are still affected as a result of sewage and pollution incidents.

Localised surface exposures of bedrock gave rise to many mineral extractive industries in the area, including stone quarrying and coal mining, although many have now declined in importance or ceased. These abandoned mining areas are now generally well vegetated, and grazed by sheep. Most of the more conspicuous dereliction has undergone land reclamation, with some reclaimed by domestic waste landfill such as at Rowley, Brandwood, Whinney Hill and Accrington. Remaining quarry faces, Carboniferous Millstone Grit outcrops and clough exposures of bedrock create distinctive features in the landscape and provide valuable access for further geological study.

Pendle Hill and the Southern Pennines provide a natural backdrop to this visually contained NCA and offer extensive views across the lower valleys from their higher points. There is a lack of tranquillity within the lower valleys linked to towns, development and transport corridors, but in the undisturbed areas on higher land there is less light and noise pollution.

In recent years there has been an increase in the demand for recreational activities such as walking, cycling and horse riding. The majority of land within this NCA is not publicly accessible, but there is a very high density of footpaths, two National Trails, a number of national and regional cycle routes, and many country parks, local nature reserves and woodlands open to the public through the 'Woods for People' initiative.

## The landscape through time

The Lancashire Valleys occupy a broad trough lying between the higher land of the Yorkshire Dales to the north, the Southern Pennines to the east and south, and the Forest of Bowland on the west and north. The higher land is underlain by Carboniferous Millstone Grit, formed by large river deltas building out into shallow, tropical marine waters. Millstone grit also forms a sandstone ridge between the Ribble and Calder catchments, which includes the Mellor Ridge and part of Pendle Hill.

The trough is underlain by Carboniferous Coal Measures, which represent the compressed remains of lush swamp vegetation and were formed by the periodic flooding of the extensive low-lying swamps that formed on top of deltas. It is the presence of coal that accounts for the early industrialisation of the area and it has been worked at depth and by open casting at the surface, although this has now declined in importance.

The bottom of the trough is covered in till, deposited beneath glaciers during the last ice age. In the Feniscowles/Pleasington area, west of Blackburn, extensive sand deposits impart a special landscape character. Bedrock resources have been quarried where the drift cover is thin. The main materials extracted were sandstone, worked on a small scale for local building, and mudstone worked for brick making in large pits at Accrington.

The character of the area is strongly dominated by a long history of access and movement along the valleys (for example, Roman roads and forts exist at Burwen Castle to the north-east near Elslack and at Ribchester in the Ribble Valley to the west), and by increasing industrial development of the valleys from the 16th century onwards.

This development began as a cottage industry during the 16th century with weaving rather than spinning. Traditionally, wool came from the Southern Pennine hillsides and flax from the low-lying country of the Lancashire and Amounderness Plain around Rufford and Croston. By 1700 each district was specialising in the production of one type of cloth. Blackburn was a centre for fustians, and most woollens and worsteds were manufactured in Burnley and Colne. The textile industry grew rapidly and, with new machines, the domestic system was replaced by factory systems which further accelerated the growth of these weaving communities. Nucleated settlements, developed from the late 18th century, were built around factory locations. These dominate the main north-east to south-west route alongside the Ribble flood plain and between the forests of Pendle and Trawden. Regular, imposing stone terraces were built to accommodate textile workers in the 19th century.



Pendle Hill from Copster Green.

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The proliferation of mills and associated residential development has created a fragmented landscape with a heavily industrialised character. Since the 1920s the textile industry has been in steady decline with many mills becoming derelict or being converted to other uses. Numerous large country houses with ornamental settings occur, particularly along the northern valley sides away from industrial towns. These substantial houses, parklands and barns, dating from the 16th century, attest to the wealth generated by the textile industry. Traditional building materials used are sandstone grit and timber frame, brick was used from the 19th century with stone flag, and from the late 18th century Welsh slate roofs. In some areas, historic parklands have been subsumed within later enclosed farmland. Private and public parks and gardens are also a significant feature of the more urban landscapes (for example, the many parks at Burnley).

The landscape of well-spaced, nucleated villages and medium densities of smaller hamlets and farmsteads was transformed in the 18th and 19th centuries, and further fragmented by the modern transport networks along the valley floors. However, the foundation of later industrial expansion – the improved pastoral economy of the 15th and 16th centuries – is still visible in the dispersed pastoral farmlands of the Ribble Valley flood plain and the later (1600–1850) enclosure of the low moorlands either side of the A56 north of Burnley. Scattered settlements on the valley sides are comprised of older stone buildings, often the longhouse type.

Historic farm buildings are still visible today. They either remain in their original isolation or have been subsumed in later urban growth. Linear and dispersed farmstead groups predominate, with some courtyard steadings developed from the late 18th century when arable farming increased. There are field barns for cattle on higher ground. Aisled barns date from the 16th century and combination barns with cattle housed at storeyed ends were associated with larger farms from the early 17th century and in general use by the 19th century.

There are fragments of former strip-field agriculture alongside northern villages (Foulridge, Kelbrook, and Earby). The Ribble Valley flood plain to the south and west is dominated by irregular pasture fields dating from before 1600. These appear to have been created mainly through processes of assartment – leaving occasional fragments of former woodland along boundaries. To the north-east the field patterns are more planned and rectilinear, reflecting episodes of moorland and Parliamentary enclosure along the fringes of the forests of Trawden and Pendle in the period 1600–1850. Hedges give way to stone walls on rising ground. Except around the fringes of the urban settlements, there is very little evidence of post-1850 enclosure patterns.

Recent developments include the expansion of towns and residential areas, light industry and the road and motorway network, all of which are contributing to and consolidating the urban character of the area. Many redundant mills and associated buildings have been converted into other uses, such as retail and housing. In many areas, farming is now giving way to livery and horseculture, particularly around the fringes of towns and villages. The rivers that helped to facilitate the Industrial Revolution and, as a result, became polluted with industrial waste, devoid of fish have since been subject to a number of improvement initiatives. Many of the rivers are now host to recreational activities such as angling and canoeing, while the Leeds and Liverpool Canal provides additional opportunities for multi-user pursuits including walking, cycling and horse riding.

## Ecosystem services

The Lancashire Valleys NCA provides a wide range of benefits to society. Each is derived from the attributes and processes (both natural and cultural features) within the area. These benefits are known collectively as 'ecosystem services'. The predominant services are summarised below. Further information on ecosystem services provided in the Lancashire Valleys NCA is contained in the 'Analysis' section of this document.

### Provisioning services (food, fibre and water supply)

- **Food provision:** The main land use in this NCA is grass and uncropped land (96 per cent), mainly for sheep and cattle rearing. The predominant farm type is livestock grazing. In 2009 there were 295 commercial livestock grazing holdings in the uplands and Less Favoured Area (LFA) (35 per cent) and 121 in the lowlands (14 per cent).
- **Timber provision:** Some 8 per cent of the area is woodland, much of which is either unmanaged or under-managed and of which only a small proportion is conifer. There are opportunities for local woodland products, including wood fuel.
- **Water availability:** Principal surface water resources within the NCA are the catchments of the rivers Ribble and Calder. The majority of the water abstraction in the area is used for public water supply, industrial purposes and supplying the Leeds and Liverpool Canal.

### Regulating services (water purification, air quality maintenance and climate regulation)

- **Climate regulation:** In this NCA soil carbon levels are generally low, reflecting the 84 per cent coverage of the NCA by mineral soils. Soil carbon levels rise slightly towards the southern half of the NCA, where there are also some pockets of much higher carbon content bordering the Southern Pennines NCA; – these are likely to be associated with the areas of upland heathland. It is important to conserve these pockets of carbon-rich soils, as they provide a carbon storage function. Soil carbon is also high under areas of woodland, and carbon storage and sequestering is also provided by the woodland itself.
- **Regulating soil quality:** Almost 70 per cent of this NCA may be subject to soil quality issues. The slowly permeable, seasonally wet, acid loamy and clayey soils and the slowly permeable, seasonally wet, slightly acid but base-rich loamy and clayey soils may suffer compaction and/or capping as they are easily damaged when wet. In turn this may lead to increasingly poor water infiltration and diffuse pollution as a result of surface water run-off. Management measures that increase organic matter levels can help to reduce these problems. Similarly, the slightly acid loamy and clayey soils with impeded drainage have a weak topsoil structure that can easily be poached by livestock and compacted by machinery when wet.
- **Regulating water quality:** The steep, fast-flowing streams and rivers result in high levels of run-off, especially after heavy rainfall, with consequent impacts of erosion and increased sediment load on areas downstream. Appropriate management in this and upstream NCAs can capture sediment run-off and improve infiltration, benefiting water quality both within this NCA and downstream.

- **Regulating water flow:** There is a risk of fluvial flooding along the narrow river valleys where settlements have typically developed. River flood risk within the NCA occurs at Ribchester on the River Ribble, at Burnley and Padiham on the River Calder, at Blackburn on the River Darwen, and at Nelson, Accrington and Oswaldtwistle on the Leeds and Liverpool Canal and associated rivers. Downstream, flood risk also occurs within the Lancashire and Amounderness Plain NCA at Preston on the Ribble and at Walton-le-Dale on the Darwen. Chorley is at risk of flooding from the River Yarrow, which rises on Rivington Moor in the Southern Pennines NCA and flows through the southern part of this NCA before joining the River Douglas in the Lancashire and Amounderness Plain NCA, where further flood risk exists at Croston. Land management practices upstream of this area could potentially make a contribution to reducing the degree of flood risk.

#### Cultural services (inspiration, education and wellbeing)

- **Sense of place/inspiration:** Sense of place is provided by the broad valley of the River Calder and its tributaries, running between Pendle Hill and the Southern Pennines. Large towns and numerous communication routes, including the Leeds and Liverpool Canal, the Preston–Colne rail link and the M65, have created an intensely urbanised and developed landscape – for example, the towns of Accrington, Blackburn and Burnley. Buildings, mainly Victorian-stone terraces, are well integrated into the landscape, while remaining agricultural land is highly fragmented by industry, with small, often ancient, woodlands constrained to narrow, steep-sided cloughs on valley sides. The area also has extensive areas of reclaimed land – a product of former quarries and coal mining – that is now generally well-vegetated, and grazed by sheep. There are also a considerable number of country

houses and parklands on the northern valley sides, especially away from the main built-up areas. A strong sense of visual containment is provided by the surrounding hills which also serve as an important backdrop, dwarfing settlements in the valley bottom.

- **Sense of history:** The history of the landscape is evident in its strong industrial heritage linked to the textile industry, with converted or redundant mill buildings, mill lodges and ponds, and the associated towns of Blackburn, Accrington and Burnley which expanded rapidly as a result of the Industrial Revolution. Some towns form part of earlier rural villages, retaining early buildings alongside stone terraces built to accommodate textile workers. Evidence of older buildings, usually of sandstone grit, is also present in the scattered settlements on the valley sides. The historic character is also dominated by access and movement along the valleys, and is reflected in a Roman road and forts at Burwen Castle near Elslack and at Ribchester, and more recently by the Leeds and Liverpool Canal.
- **Recreation:** Recreation is supported by the area's 1,590 km rights of way network (with a density of 2.9 km per km<sup>2</sup>), including the Pennine Bridleway and Pennine Way National Trails of which just over 28 km cuts through the area, as well as 1,733 ha of open access land (just over 3 per cent of the NCA). The area also offers a variety of recreational activities, including angling and golf, while access to more natural environments provides opportunities for bird watching and other informal leisure pursuits that contribute to public health and wellbeing.

- **Biodiversity:** There is a limited extent of priority habitats within the NCA, with 600 ha of upland heathland being the largest, while woodland and unimproved grassland are also represented. The NCA contains no Natura 2000 sites and just 75 ha are nationally designated as Sites of Special Scientific Interest. There are 275 local sites in the Lancashire Valleys covering 3,228 ha, which is 6 per cent of the NCA.
- **Geodiversity:** The NCA has a relatively simple geology, formed of Carboniferous rocks and more recent glacial deposits. There are currently three nationally designated geological sites within the NCA, namely Darwen River Section, Cock Wood Gorge, and Harper Clough and Smalley Delph Quarries, all of which are important for their exposures of sandstone geology. The 16 Local Geological Sites include examples of natural outcrops, disused quarries and stream sections. These sites provide opportunities to interpret the local geodiversity, helping to inform and educate visitors and increasing their understanding and enjoyment of the sites.



View looking north from Langho. The top of the Bowland Fells can just be glimpsed.

## Statements of Environmental Opportunity

**SEO 1: Conserve and manage the Lancashire Valleys' industrial heritage to safeguard the strong cultural identity and heritage of the textile industry with its distinctive sense of place and history.**

**For example, by:**

- Protecting, conserving, managing and interpreting the area's historic identity, in particular the buildings associated with past textile and mining/quarrying industries, urban fabric, parks, rural villages, country houses, parklands and industrial heritage, to ensure a better understanding of past land use and retain evidence of the relationships between features for the future.
- Protecting, conserving, managing and interpreting the many layers of historical evidence to raise awareness and for public benefit, understanding and enjoyment.
- Promoting and encouraging opportunities to restore and re-use vernacular buildings, using local styles and building materials in order to maintain and enhance the historic character of rural villages and urban areas.
- Increasing awareness of, access to, and interpretation of the area's strong industrial heritage/textile industry, particularly that associated with the Leeds and Liverpool Canal.
- Encouraging and promoting land management practices and developments, such as tracks, that will not be detrimental to, or damage, archaeological evidence or historic features.
- Protecting and encouraging sensitive restoration and re-use of existing, redundant and derelict mill buildings and artefacts, such as mill ponds, associated with the textile industry to retain the historic industrial heritage, particularly linked to the Leeds and Liverpool Canal.
- Seeking opportunities to promote and use the network of paths to gain access to, reveal and interpret the area's rich history, to increase public understanding and enjoyment of it.
- Raising awareness and increasing understanding of the local history of the area and its importance at a national level.
- Conserving important geological exposures and providing interpretation, making links between the geology and the industries that relied on these resources.

**SEO 2: Increase the resilience and significance of woodland and trees, and manage and expand existing tree cover to provide a range of benefits, including helping to assimilate new infrastructure; reconnecting fragmented habitats and landscape features; storing carbon; and providing fuel, wood products, shelter and recreational opportunities.**

**For example, by:**

- Protecting, conserving and enhancing the mosaic and diversity of existing woodlands, especially ancient semi-natural woodland, and improve their connectivity.
- Bringing the area's small broadleaved woodlands, particularly on farms, into management, focusing on the visually important clough and ridge-side woodlands on the lower hillsides and the wet woodlands in the valley bottoms, and focusing on farm shelter plantings and copses that are distinctive to the industrial foothills and valleys.
- Planting new broadleaved woodlands, particularly on degraded farmland and vacant industrial land in the urban fringe, focusing on the visually important clough and ridge-side woodlands.
- Managing and restoring hedges and field boundary trees and connecting to existing fragmented and degraded habitats.
- Encouraging sustainable management of existing woodlands to produce surplus timber and biomass for local use – for example, for wood-fired boilers – while maintaining their biodiversity and landscape value, increasing resilience, and regulating soils and water.
- Ensuring that new woodland strengthens the local landscape and enhances biodiversity, providing recreational opportunities where possible.
- Creating new woodlands to assimilate urban development and to enhance rural character and tranquillity where appropriate.
- Promoting and marketing small-scale biomass production through planting on sites that are isolated by development and are not suitable for agriculture, spoil heaps or closed landfill sites.
- Supporting the aims of the North West Regional Forestry Framework and sub-regional strategies.

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**SEO 3: Manage and support the agricultural landscape through conserving, enhancing, linking and expanding the habitat network, and manage and plan for the associated potential impact of urban fringe development, intensive agriculture and climate change mitigation.**

**For example, by:**

- Conserving, enhancing and expanding characteristic landscape and important ecological resources, such as species-rich, unimproved/semi-improved meadows and pastures and wetland meadows, including bringing nationally and locally designated habitats into, and maintaining, favourable condition.
- Managing land adjacent to isolated habitats to ensure that they are protected, expanded, buffered and linked to increase habitat connectivity and allow species movement, especially along rivers, the Leeds and Liverpool Canal, mill ponds and clough woodlands.
- Encouraging improved management of grassland and woodland through increased uptake of environmental incentive schemes to provide a farmed landscape of fields, well-managed hedgerows, mosaics of grass and margins, and small woodlands to benefit species such as farmland birds.
- Managing pressures on remnant farmland adjoining urban areas so that the characteristic stone wall and hedgerow field boundaries, especially those adjacent to urban areas, lanes and important footpaths and viewpoints, are conserved and enhanced.
- Managing and extending permanent grassland, woodland, wetland and riparian habitats along watercourses, the Leeds and Liverpool Canal, cloughs and valley sides to capture sediment, increase holding capacity, slow down run-off and improve infiltration.
- Managing pastures at a sustainable level, to improve soil structure, increase soil carbon storage, aid water infiltration and slow down/reduce water run-off, and safeguard water and soil quality.
- Encouraging expansion of wetland habitats such as reedbeds, woodlands and wet grasslands along valley bottoms, to improve flood mitigation by intercepting and retaining water for longer.
- Encouraging and promoting opportunities within the Upper Ribble and Hodder sub-catchment to provide flood storage and create habitat that could reduce downstream flood risk.

**SEO 4: Conserve and manage the distinction between small rural settlements and the densely urban areas and ensure that new development is sensitively designed to contribute to settlement character, reduce the impact of the urban fringe and provide well-designed green infrastructure to enhance recreation, biodiversity and water flow regulation.**

**For example, by:**

- 'Designing in' green infrastructure principles with housing expansion, business park developments (associated with key road intersections), expansion of water treatment facilities and associated changes such as horsiculture.
- Encouraging innovative new uses for old and/or abandoned buildings, while preserving their characteristic features.
- In urban areas, protecting important views to the hills from the impact of new development, including windfarms.
- Providing new permissive access that links to open access land, long distance rights of way, country parks and other areas of greenspace.
- Protecting the nature conservation interest of vacant land from new development.
- Protecting the setting of the adjacent Forest of Bowland Area of Outstanding Natural Beauty.
- Seek opportunities to develop sustainable urban drainage systems (SUDS) in urban areas in particularly in new development, to improve infiltration and manage surface water.
- Improving the urban-rural fringe through careful design and integration of green infrastructure with housing and industry, through linking new developments with the wider countryside and sustainably manage urban activities within agricultural areas.
- Improving, maintaining and expanding semi-natural habitats on farmland, such as meadows, pastures, wetlands and clough woodlands, which may increase the sense of tranquillity in the urban fringes, for example by planting new woodlands and shelter belts, and ensuring new developments are sensitively designed to reduce any visual and infrastructure impacts on rural areas and the urban fringe.
- Ensuring new woodland screens urban fringes to enhance rural character and tranquillity and contributes to recreational value by providing appropriate access to encourage public engagement with and enjoyment of nature.

## Landscape opportunities

- Bring the area's small broadleaved woodlands, particularly on farms, into management, focusing on the visually-important clough and ridge-side woodlands on the lower hillsides and the wet woodlands in the valley bottoms. Also focus on farm shelter plantings and copses that are distinctive to the industrial foothills and valleys.
- Protect, manage and conserve ancient semi-natural woodlands to reduce grazing, maintain plant/herbs in pasture, and encourage natural regeneration of native species, especially those in cloughs and the undulating lowland farmland west of Blackburn.
- Protect, conserve and actively manage parkland landscapes including restoring links to associated Country houses and farmland, especially in the undulating lowland farmland.
- Conserve and manage wetland/riparian habitats along rivers, streams and the Leeds and Liverpool Canal to protect and support valuable wildlife.
- Create new small native broadleaved woodlands, to provide improved farm shelter, strengthen cloughs and valley side woodlands, enhance the landscape around towns and villages, restore former industrial land and provide a new recreational resource especially in the urban fringe.
- Protect, conserve and strengthen field boundaries both hedgerows and walls, focusing on livestock farms, and relatively intact and visually prominent field boundary patterns, such as those on the Millstone Grit ridge.
- Manage, restore and replant hedgerows and hedgerow trees using species typical of the area.
- Maintain and restore dry stone walls using local stone for repairs to retain them as key historic features, and keep the visual link with the underlying geology.
- Protect the contrasts between the urbanised and industrial valley bottoms and the more rural lower valley sides.
- Protect, conserve and manage traditional hay meadows and pastures to maintain the diversity of semi-natural grasslands, especially remnant flood plain and upland hay meadows.
- Encourage and support traditional agricultural practices to maintain and enhance species-rich meadows.
- Conserve the historic character and unity of villages and hamlets on lower hillsides by using traditional building materials and patterns in restoration, conversion and any new development.
- Maintain and restore traditional farm buildings and barns using local materials/vernacular style, especially the longhouses (laithe houses) which are key features of land on the fringes of the Forest of Bowland.
- Protect and restore redundant or derelict mills and associated buildings, and artefacts such as mill ponds to conserve the strong industrial heritage associated with the textile industry, and offer interpretation and educational experiences to increase visitor understanding and enjoyment of this environment.