Craven Local Plan

FOREST OF BOWLAND

Evidence Base

Compiled November 2019

Contents

Introduction

This document is a compilation of all Forest of Bowland (FoB) evidence underpinning the Craven Local Plan. The following table describes the document's constituent parts.

Title	Date	Comments
FoB AONB Landscape Character Assessment (Part I)	September 2009	The assessment provides a framework for understanding the character and future management needs of the AONB landscapes, and an evidence base against which proposals for change can be judged in an objective and transparent manner.
FoB AONB Management Plan 2014-2019 (Part II)	February 2014	The management plan provides a strategic context within which problems and opportunities arising from development pressures can be addressed and guided, in a way that safeguards the nationally important landscape of the AONB. In fulfilling its duties, Craven District Council should have regard to the Management Plan as a material planning consideration.
FoB AONB Obtrusive Lighting Position Statement (Part III)	N/A	The statement provides guidance to all AONB planning authorities and will assist in the determination of planning applications for any development which may include exterior lighting.
FoB AONB Renewable Energy Position Statement (Part IV)	April 2011	The statement provides guidance on the siting of renewable energy developments, both within and adjacent to the AONB boundary. It will assist AONB planning authorities in the determination of planning applications and any developer, business, community or resident who is seeking to install micro or small scale renewable systems within or adjacent to the AONB.

Part I: Forest of Bowland AONB Landscape Character Assessment 2009

Forest of Bowland
Area of Outstanding Natural Beauty

Landscape Character Assessment





September 2009

CHRIS BLANDFORD ASSOCIATES
environment landscape planning

Lancashire County Council

Forest of Bowland Area of Outstanding Natural Beauty

Landscape Character Assessment

Approved	D. Watkins
	Dominic Watkins
Position	Director
Date	30th September 2009
Revision	Final Report

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APPENDICES

FIGURES

The Forest of Bowland Area of Outstanding Natural Beauty (AONB) Landscape Character Assessment was commissioned by Lancashire County Council Environment Directorate, with financial support from the Forest of Bowland AONB Unit and Natural England.

The study was prepared for Lancashire County Council by Chris Blandford Associates.

Published in July 2009
Lancashire County Council/Forest of Bowland AONB

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EXECUTIVE SUMMARY

The Forest of Bowland Area of Outstanding Natural Beauty (AONB) is a nationally protected landscape and internationally important for its heather moorland, blanket bog and rare birds. It was designated as a landscape of national significance due to a variety of factors: the grandeur and isolation of the upland core; the steep escarpments of the Moorland Hills; the undulating lowlands; the visual contrasts between each element of the overall landscape; the serenity and tranquillity of the area; the distinctive pattern of settlements; the wildlife of the area; and the landscape's historic and cultural associations.

The Forest of Bowland is still 'undiscovered territory' for many people. The AONB forms part of the extensive Pennine Chain, which extends eastwards into the Yorkshire Dales National Park and southwards across Lancashire. The unique landscape character of the Forest of Bowland reflects its historical and present day management for farming and sporting activities, from the royal forest of medieval times, to the sporting estates of the present day. This has had a taming influence on the landscape.

The AONB Management Plan for the Forest of Bowland (2009-14) identifies a need to carry out a detailed assessment of the local distinctiveness of the AONB at scale of 1:25,000. In December 2008, Lancashire County Council commissioned Chris Blandford Associates to prepare a Landscape Character Assessment for the Forest of Bowland AONB. The study is being joint-funded by a Steering Group consisting of Natural England, Forest of Bowland AONB and Lancashire County Council.

The Landscape Character Assessment has confirmed the diversity of the Forest of Bowland's landscapes, identifying, mapping and describing 14 Landscape Character Types and 82 Landscape Character Areas within only 803 square kilometres. This Assessment seeks to provide a framework for developing a shared understanding of the current character of the Study Area's landscapes and its future management needs.

It is intended to be a reference document for everyone with an interest in the future planning and management of the AONB – including residents, businesses, national and local agencies, farmers and other land managers. The Assessment also seeks to provide an inspirational source of ideas and guidance to help encourage locally appropriate management and use of land in ways that conserve and/or enhance valued features of the landscape. In this way, the Assessment will provide an evidence base against which proposals for change can be judged in an objective and transparent manner.

We are grateful for the advice and guidance provided by the Steering Group, namely:

- Don McKay – AONB Officer
- Cathy Hopley – AONB Development and Funding Officer
- Tarja Wilson – Lancashire County Council Countryside Officer (North and West Bowland)
- Steven Brereton – Lancashire County Council: Specialist Advisor (Landscape)
- Susannah England - Natural England

We would also like to acknowledge historic landscape contributions from:

- Nigel R.J. Neil – Neil Archaeological Services
- James Riley – Landscape Architect

In addition, we appreciate inputs from Lancashire County Council Countryside Officers – David Oyston and David Padley, Jon Hickling – Natural England, Peter Jepson – Lancashire County Counil and illustrations from Sue Flowers. We would also like to acknowledge the representatives of organisations who attended the stakeholder consultation workshops (see Appendix F for details).

1.0 INTRODUCTION

1.1 Background

1.1.1 In December 2008, Lancashire County Council commissioned Chris Blandford Associates (CBA) to prepare a Landscape Character Assessment for the Forest of Bowland Area of Outstanding Natural Beauty (AONB)[1]. The study is being joint-funded by a Steering Group consisting of Natural England, Forest of Bowland AONB and Lancashire County Council.

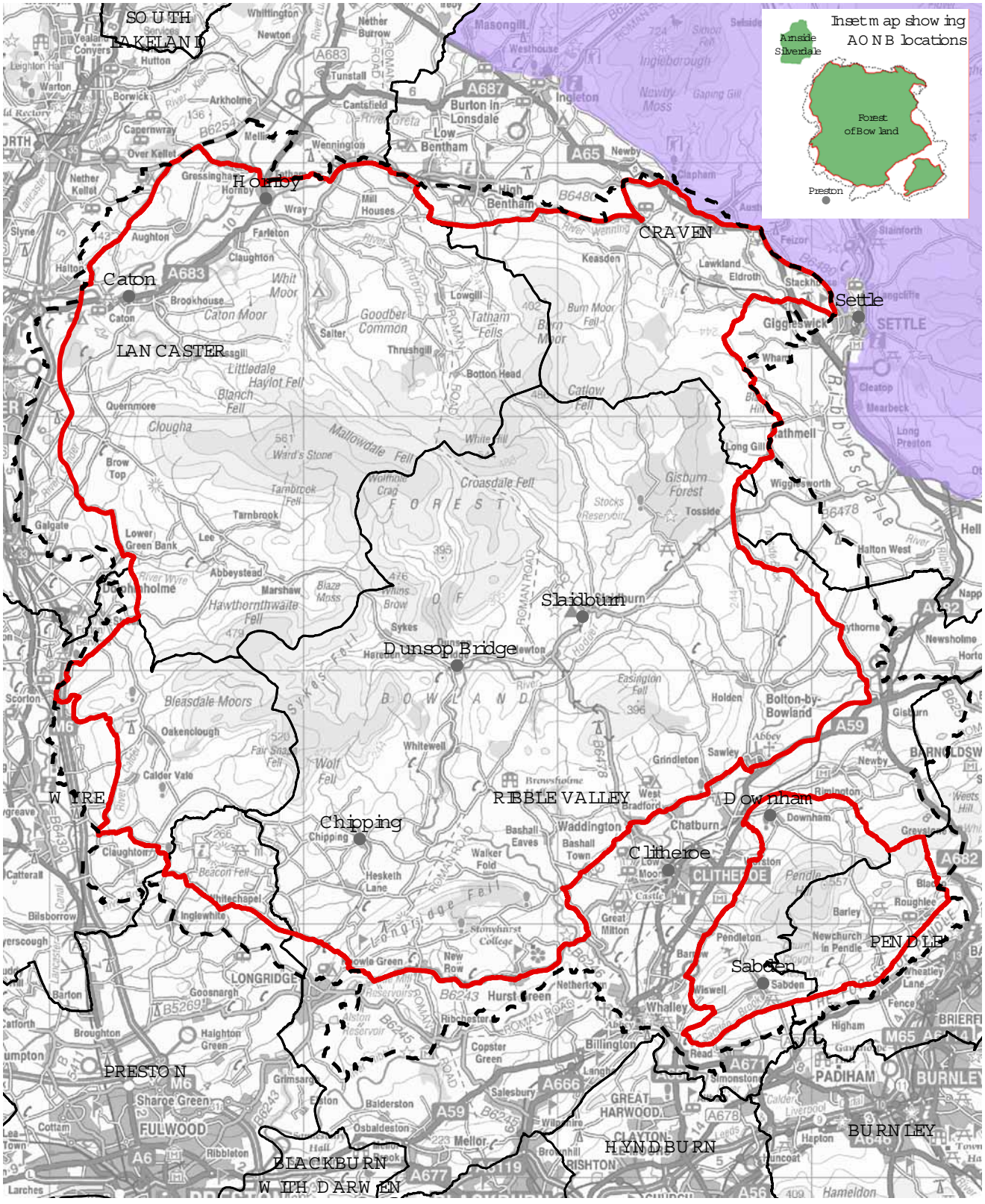
1.1.2 Situated in the North West of England, the Forest of Bowland Area of Outstanding Natural Beauty (AONB) covers 803 square kilometres of rural land in the counties of Lancashire (730 sq.km) and North Yorkshire (73 sq.km) (see **Figure 1.1**). The Rivers Lune and Ribble run along the northern and southern boundaries of the area. To the west is the Fylde plain, while the eastern side of the AONB boundary follows the edge of the Yorkshire Dales National Park for a short distance. On its south-eastern edge, Pendle Hill forms a discrete landscape feature, which is geologically linked to the rest of the AONB but separated from the main area by the valley of the River Ribble.

1.1.3 The Forest of Bowland is one of two Areas of Outstanding Natural Beauty within Lancashire and is partly situated within the following Local Authority areas:

- Preston City Council
- Pendle Borough Council;
- Lancaster City Council;
- Ribble Valley Borough Council;
- Wyre Borough Council;
- Craven District Council.

1.1.4 The Forest of Bowland is a nationally protected landscape. The Bowland Fells are nationally important for their blanket bog, heather moorland, wet heath and flushed plant communities, as well as their upland breeding bird community (reflected in their definition as a Special Protection Area (SPA) and Site of Special Scientific Interest (SSSI). The Fells are also of international importance for their breeding raptors (most notably hen harrier, merlin and peregrine), whilst the heath and blanket bog support golden plover, meadow pipit, skylark, whinchaf and wheatear. The fell fringes and lower lying areas of farmland also support lapwing, curlew, redshank and snipe. The AONB is managed by a partnership of landowners, farmers, voluntary organisations, wildlife groups, recreation groups, local councils and

[1] Details of the Project Brief and individuals involved in the preparation of the Study can be found in **Appendices A and B**.



KEY

- Study Area
- Forest of Bowland Area of Outstanding Natural Beauty (See section 1.3.4)
- District / Borough Administative Boundaries
- Yorkshire Dales National Park

0 2 4 km

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SEPTEMBER 2009

FOREST OF BOWLAND AONB
LANDSCAPE CHARACTER ASSESSMENT

Figure 1.1
The Study Area

government agencies, who work to protect, conserve and enhance the natural and cultural heritage of this special areas.

1.1.5 In 2006 the UK formally ratified the European Landscape Convention, which brings a commitment to:

- Recognise landscapes in law as an essential component of people's surroundings, an expression of the diversity of their shared cultural and natural heritage and a foundation of their identity;
- Establish and implement landscape policies aimed at landscape protection, management and planning;
- Establish procedures for the participation of the general public, local and regional authorities and other parties;
- Integrate landscape into regional and town planning policies and also cultural, environmental, agricultural, social and economic policies, as well as in any other policies with possible direct or indirect impact on landscape and;
- Establish and implement landscape policies, establish procedures for stakeholder participation and integrate landscape into broader policy.

1.1.6 The Convention aims to encourage public authorities within member states to adopt policies and measures for the protection, management and planning of all landscapes, whether outstanding or ordinary, that determine the quality of people's living environment. The Convention specially encourages local authorities to introduce exemplary and long lasting policies or measures to protect, manage and plan landscapes.

1.1.7 The European Landscape Convention defines landscape as:

'An area, as perceived by people, whose character is the result of action and interaction of natural and/or human factors'.

View of Roeburndale valley

1.1.8 At the Regional level, the North West Regional Spatial Strategy[2] highlights the need for integrated enhancement and protection of the Region's environmental assets. Policy EM1 states the need for 'detailed landscape character assessments and strategies, set in the context of the North West Joint Character Area Map', which will be used to 'identify priority areas for the maintenance, enhancement and/or restoration of that character'.

1.1.9 The North West Regional Landscape Partnership (with support from Natural England) is developing a Regional Landscape Character Framework for the North West. The project aims to help implement and promote the principles of the European Landscape Convention in the North West. It seeks to deliver a regional landscape character framework which:

- Provides a consistent, justified, hierarchical, geographical and environmental framework for the existing Landscape Character Assessment (LCA) resource;
- Encompasses existing, recognised landscape frameworks such as National Character Areas, as well as local-level landscape character information;
- Links information on pressures, forces for change, management needs, guidelines etc. to the Framework as appropriate;
- Allows existing landscape information to be better used and developed for spatial planning, land use and land management; and
- Has the potential to be developed in the future, as a means of engaging interested members of the general public.

1.1.10 This Landscape Character Assessment is consistent with the North West Regional Landscape Character Framework.

1.1.11 The Countryside and Rights of Way Act (CRoW) 2000 placed a statutory duty on local authorities to prepare a Management Plan for AONB's in their areas and review the plans every five years. The new Management Plan[3] for the Forest of Bowland identifies a need to carry out a more detailed assessment of the local distinctiveness of the AONB at a scale of 1:25,000 within the framework of the existing Landscape Character Assessment for Lancashire County[4], undertaken at a scale of 1:50,000.

[2] North West Regional Strategy to 2021, Government Office for the North West
[3] April 2009-March 2014, Forest of Bowland AONB Unit.
[4] Environmental Resources Management (ERM) October 1999.

1.2 Purpose of the Assessment

1.2.1 This Assessment seeks to provide a framework for developing a shared understanding of the current character of the AONB's landscapes, the forces for change affecting these landscapes and its future management needs.

1.2.2 It is intended to be a reference document for everyone with an interest in the future management of the AONB – including residents, businesses, planning policy and development control officers, national and local agencies, farmers and other land managers. The Assessment also seeks to provide an inspirational source of ideas and guidance to help encourage locally appropriate management and use of land in ways that conserve and/or enhance valued features of the landscape. In this way, the Assessment will provide an evidence base against which proposals for change can be judged in an objective and transparent manner.

1.2.3 The specific aims and objectives of the Assessment are:

Aims

- To provide an up-to-date and detailed 1:25,000 scale Landscape Character Assessment of the whole of the Forest of Bowland AONB area using Lancashire County Council's Landscape Character Assessment as a framework.

Objectives

- To describe the Forest of Bowland AONB landscape's current appearance and show how it has evolved in terms of human influences and physical forces;
- To classify the landscape into distinct Landscape Character Types and Landscape Character Areas by undertaking a Landscape Character Assessment, involving desk study, field survey, identification, mapping and description;
- To identify key environmental features, forces for change, landscape sensitivity and capacity for change, make recommendations, develop guidelines and identify targets for Landscape Character Types and Areas, to inform the future development of landscape policy, management plans and landscape strategies;
- To involve a range of communities, partners and stakeholders in the development of the Landscape Character Assessment; and
- To promote public awareness of landscape character, the importance of landscape conservation and enhancement and, significantly, the guiding principle that all landscapes matter.

Applications of the Landscape Character Assessment

1.2.4 Specific applications of the assessment and guidelines are:

- To inform the development and implementation of AONB Management Plan policies, conservation and grant aid schemes and land use planning policies;
- To act as a tool for spatial planning use within the AONB;
- To assist with the assessment of individual planning applications;
- To understand a location's sensitivity to development and change;
- To develop future strategies for conserving and/or enhancing the landscape, local distinctiveness and sense of place;
- To help formulate priorities and prescriptions for land management advice offered by the AONB and partners;
- To provide an assessment that can inform and respond to other landscape, cultural and historical strategies;
- To engage with partners and communities to improve understanding of the character of the AONB's landscape;
- To monitor landscape change within the AONB.

1.3 Approach and Methodology

1.3.1 The overall approach for undertaking the Landscape Character Assessment is based on the latest published national guidance[5], taking into account current best practice. Landscape Character Assessment addresses both the analytical process of character assessment (or 'characterisation'), which involves identifying, mapping, classifying and describing landscape character, and the evaluative process of developing guidelines for informing planning and land management decisions.

1.3.2 The study is based on an integrated approach that takes into account more than just the visible components of landscape. It is about the relationship between people, place and nature. The approach recognises that historical and cultural associations and the total experience of landscape through all the senses, and through knowledge, are integral to defining landscape character and its distinctiveness. Some components of landscape character are tangible features capable of being mapped and measured, whilst others are more intangible and less easy to define objectively. The components of the landscape are its:

- visible physical components (e.g. landform, buildings, vegetation);

[5] Landscape Character Assessment – Guidance for England and Scotland (Countryside Agency/Scottish Natural Heritage, 2002).

- visible spatial components (e.g. scale, pattern, colour, texture); and
- non-visible components (e.g. sense of tranquillity, wildness, and cultural associations).

A farmer feeding sheep

1.3.3 These components of the landscape that combine to form landscape character, vary considerably from place to place, and usually provide such a unique combination of components that it is distinctive and not quite like anywhere else. This gives a sense of place and identity unique to each area. Landscape observation, description and classification necessarily involve objective and subjective matters; this Study embraces these subjective elements by confining description to the components of the landscape rather than recording the assessor's responses to it.

The Trough of Bowland

The Study Area

1.3.4 The Study Area is shown on **Figure 1.1**. As agreed with the Steering Group, the Study Area includes the Forest of Bowland AONB and 'complete' Landscape Character Areas which extend outside the AONB boundaries. This approach takes into account the fact that landscape character units may not necessarily coincide with administrative boundaries and helps to place the AONB's landscapes in the context of Lancashire's landscapes as a whole (see Section 3.0 for details). In some cases the Landscape Character Type and Area boundaries are contiguous with the AONB boundary. This is purely coincidental.

The Study Process

1.3.5 The study process is illustrated on **Figure 1.2**. This illustrates the iterative nature of the overall process and highlights the relationship between the distinct but linked character assessment and evaluation stages involved in the preparation of the Landscape Character Assessment and Landscape Guidelines.

Desk Study

1.3.6 This stage of the process involved the review of relevant background reports, aerial photographs, other data and mapped information (including topography, geology, land cover and vegetation) to develop a series of map overlays to assist in the identification of areas of common character (draft Landscape Character Types and Areas) at a scale of 1:25,000:

- **Landscape Character Types** – generic units of landscape with a distinct and recognisable pattern of elements, such as trees, hedgerows or streams that occur consistently throughout the type; and

- **Landscape Character Areas** – discrete geographical areas (within each Landscape Character Type) with a distinct and recognisable pattern of elements that occur consistently throughout the area.

Field Survey

1.3.7 Following desk study, the draft Landscape Character Types and Areas were tested and refined in the field, via a series of survey visits. The field surveys sought to capture those elements of each Landscape Character Type/Area, which were unlikely to be evident from desk information, such as aesthetic and perceptual qualities; and to identify the current condition of

landscape elements. Field Survey forms were used to record information (for an example, see **Appendix E**).

Classification and Description

1.3.8 This stage of the process refined and finalised the Landscape Character Types and Areas and mapped their extents, based on the information collected. Clear descriptions of the character of each Landscape Character Type/Area were then prepared.

1.3.9 Within this Study, Landscape Character Areas (discrete geographical areas with a unique sense of place and combination of landscape, aesthetic and perceptual elements, including pattern, sounds and views) nest within each of the defined Landscape Character Types.

1.3.10 The Landscape Character Types provide a spatial framework within which generic forces for change, land management issues and guidelines for managing landscape change can be developed. The Landscape Character Areas reflect distinctive variations in local character within each Landscape Character Type, based on desk study and visual analysis of how different patterns of physical and cultural attributes/features combine with perceptual qualities such as scale, pattern, and cultural associations, etc to create areas of distinctive landscape character that are unique.

Evaluation

1.3.11 The character of the landscape varies across the Study Area as a result of different patterns of physical, cultural, historical and ecological characteristics. The landscape is not static, and will continue to change in response to a range of social, economic and environmental factors. The scale and speed of change have all increased with technological progress, and landscapes have different capacities to tolerate change.

1.3.12 Landscape character has evolved over time in response to traditional ways of building and utilising the land that respected natural constraints and used natural, locally available materials and techniques. In considering potential future changes it is important to understand and respect this historical context, to appreciate why features are like they are, to inform today's decision making.

1.3.13 The evaluation process involved making judgements about the inherent sensitivities/vulnerabilities of a landscape, its capacity to accommodate different forces for change and its current condition. These judgements were used to develop guidelines that highlight needs and opportunities for managing landscape change to inform land use planning and land management decisions.

1.3.14 Indicators have also been developed to assist in monitoring changes in the landscape character of the AONB.

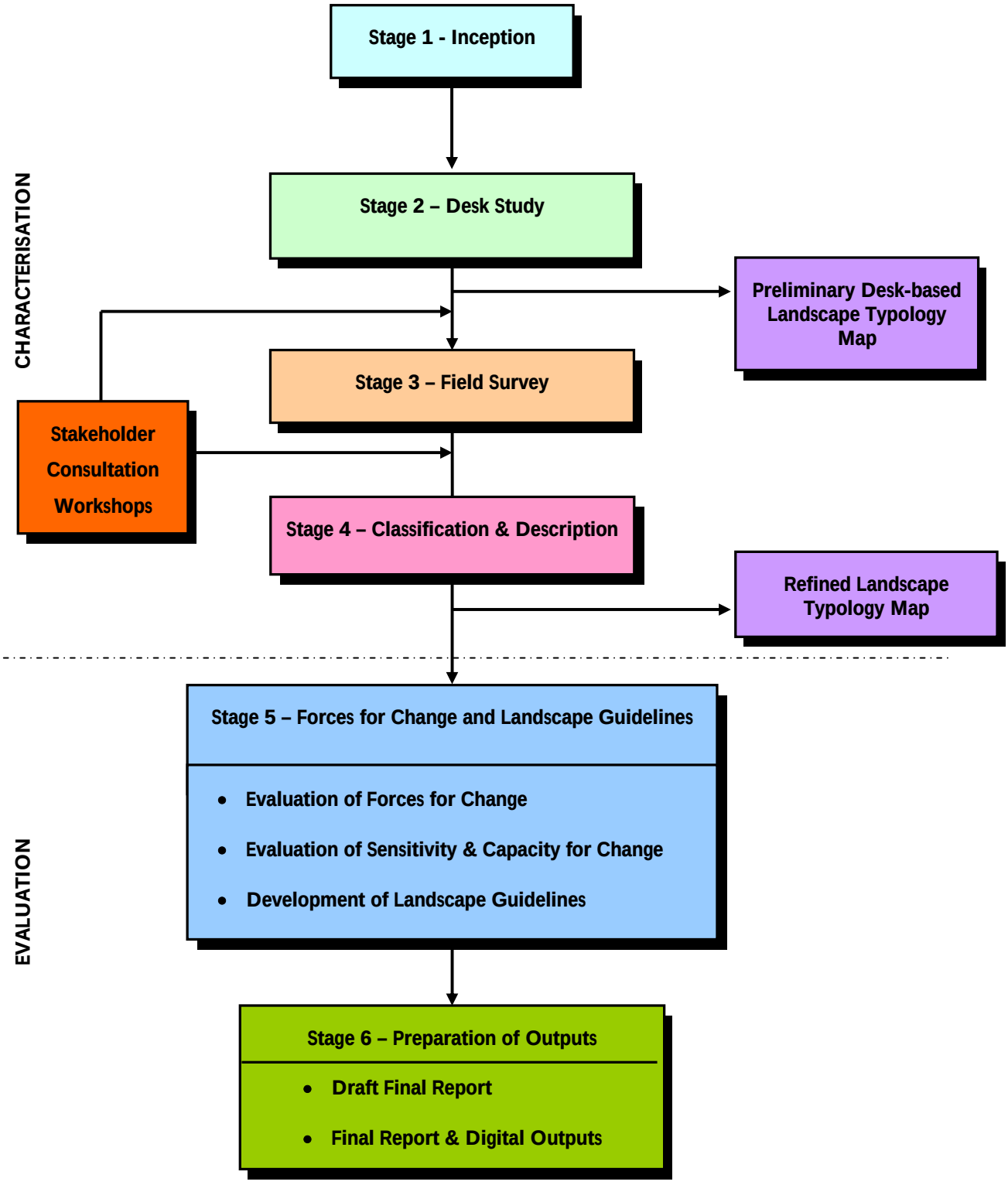


Figure 1.2 – Study Process

Stakeholder Consultation

1.3.15 Major landowners and managers, statutory agencies and other key stakeholder organisations have been involved in the process of developing the Landscape Character Assessment. The informative and positive feedback from consultation has helped to strengthen the evidence base by incorporating the views of both communities of interest and place. Engaging stakeholders in the project has also helped promote awareness of the value of the Landscape Character Assessment as a tool for informing planning and land management decisions.

1.3.16 The process involved consulting organisations within the AONB Partnership and other key stakeholder groups through two stakeholder workshops (see **Appendix F** for details).

1.3.17 Full details of the study methodology are provided in **Appendix C**.

1.4 Structure of the Report

1.4.1 The remainder of the report is structured as follows:

- **Section 2.0: Evolution of the Landscape** – provides an overview of the landscape, describing the physical and historical influences on the landscape and identifies the key forces for change affecting landscape character today.
- **Section 3.0: Landscape Classification Hierarchy -** describes the context provided by the hierarchical classification of Landscape Character Areas and Types defined at the national, regional and county levels. Within this context, the classification of Landscape Character Types and Landscape Character Areas defined within the Forest of Bowland is presented;
- **Section 4.0: Landscape Character Descriptions –** provides the detailed descriptions or 'profiles' describing and evaluating each of the identified Landscape Character Types and Areas and provides proposed guidelines for managing landscape change;
- **Section 5.0: Future Forces for Change** - provides an overview of the forces on the landscape which may result in future changes to landscape character, and;
- **Section 6.0: Monitoring Landscape Change** - sets out indicators for monitoring landscape change in the AONB.

2.0 EVOLUTION OF THE LANDSCAPE

2.1 Introduction

2.1.1 The present day landscape of the Forest of Bowland is a product of the physical and human influences that have shaped its basic structure and appearance. In particular, the underlying geology and the processes of erosion and deposition have had a profound effect on the landscape, influencing not only landform, soils and vegetation communities, but also the human activities dependent upon or affected by them. In turn, the basic appearance of the landscape has been superimposed by the results of man's activities, changing natural vegetation patterns to suit human needs and introducing man-made elements into the landscape.

Late Mesolithic Period c.11000 BC

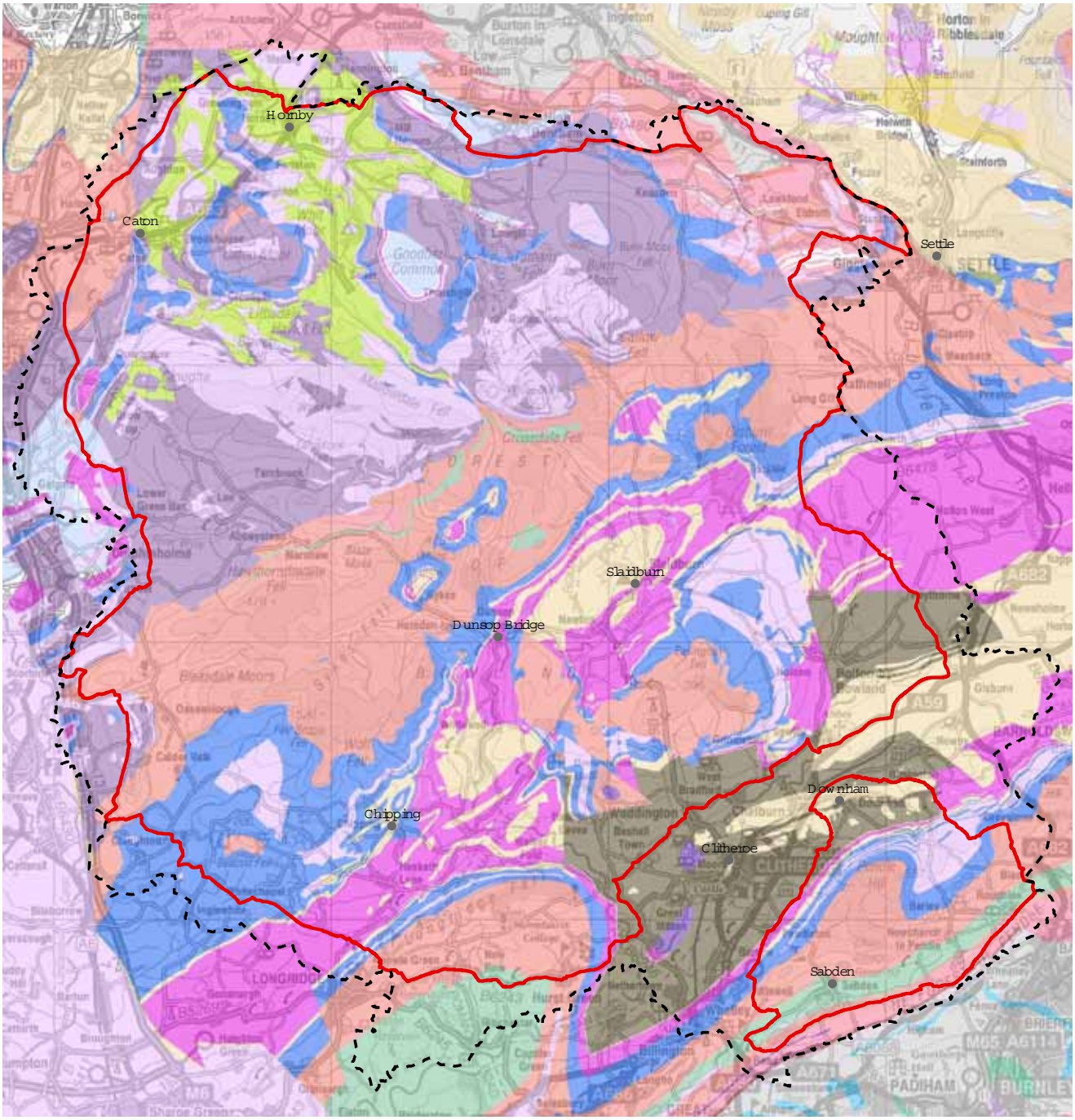
Post-Medieval – early 19th century

2.2 Physical Influences on Landscape Character

Geology and Glaciation

2.2.1 The underlying solid geology of the Study Area is shown on **Figure 2.1**. The oldest deposits date from the Lower Carboniferous period (350 to 333 Million years ago) and include limestones, shales and sandstone rocks. These deposits were formed within fluctuating seas, which once covered the Study Area, resulting from variations in size of the south polar ice sheet. They are very resistant to erosion and form the core of the rounded hills of the Bowland Fells and the Pendle Hill outlier. The deposits also occur in the Ribble Valley, near Clitheroe. Where they are located close to the surface, they are visible within the landscape in the form of the small, isolated hills or 'reef knolls' within the Hodder and Ribble Valleys.

2.2.2 In the Upper Carboniferous 'Westphalian' period (333 and 318 Million Years ago) coarse sandstones, gritstones and shales were deposited in the Study Area (see **Figure 2.1**) , forming slowly subsiding deltas and large river floodplains and estuaries. Later, these rocks were



KEY

Geology

- Shale
- Gritstone
- Mudstone
- Limestone
- Sandstone
- Siltstone
- Tuff
- Coal Measures
- Chert
- Mudstone, Siltstone and Sandstone
- Sandstone and Mudstone
- Mudstone and Siltstone
- Siltstone and Sandstone

- Study Area
- Forest of Bowland Area of Outstanding Natural Beauty

0 2 4 km

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Figure 2.1
Geology

uplifted to form the fell tops of the broad gritstone plateau within the central Bowland Fells. In places, these deposits are visible as surface outcrops within the landscape, such at Ward's Stone and Clougha Pike. The softer bands of sandstone have eroded to create low scarps, valleys and cloughs, which radiate from the fell tops. The interface between gritstones and shales has resulted in many of the flushes/springs present throughout the Bowland Fells, most notably the large flush systems present within the Calder Valley (i.e. up to the Arbour), those present below Hawthornwaite Fell (i.e. Black Clough to the Marshaw Wyre) and also those present within the Brennand Valley, which support important flushed plant communities including nationally and regionally scarce plant species. Others occur at Arrow Bank and also on the northern most Fells below Clougha, Ward's Stone, Greenbank and Botton Head Fells. The large rush dominated flushes on Hare Appletree Fell are the largest of their kind on the Bowland Fells.

2.2.3 During the last Ice Age in the Pleistocene and Holocene periods from around 2.5 million years ago, the underlying rocks were heavily modified by the effects of glaciation. At the glacial maximum, around 18-20,000 years ago, an ice sheet covered the whole of the AONB. Glacial erosion smoothed the outline of the fells, creating the distinctive profile of the AONB's landscape. During this period, the climate fluctuated markedly and softer, unconsolidated deposits of clays, sands and gravels were left by retreating ice sheets. Meltwater deposits are clearly visible within the present-day landscape, in the form of small hills and hollows of the drumlin fields in the north and east of the Study Area. The impact of meltwater is also visible on the moorland fringes, especially on west-facing slopes and above major river valleys such as the Lune, where both erosion and deposition is visible. In places, escaping meltwaters have created new side valleys or cut through solid rock, creating meltwater channels such as the dells to the north of Clougha Pike. The ice was the thickest in the valleys and was the last to melt, resulting in new sections of river channels being cut through resistant bedrock. In several places, this resulted in the creation of glacial diversion channels and gorges. These are visible within the course of the Rivers Wyre and Brock and also along the Ribble Valley at Gisburn.

2.2.4 The diversity of the Study Area's geology and geomorphology is reflected in the range of sites of conservation interest within the Study Area (see **Figure 2.3**). These include for example:

- Clitheroe Reef Knolls (Site of Special Scientific Interest – SSSI);
- Little Mearley Clough (SSSI);
- Bowland Fells (SSSI);
- Hodder River Section (SSSI);
- Halton Gorge and Quernmore Valley (Regionally Important Geological Site – RIGS);
- Condor Head (RIGS);
- Artle Beck Gorge (RIGS);

- Dinkling Green (RIGS).

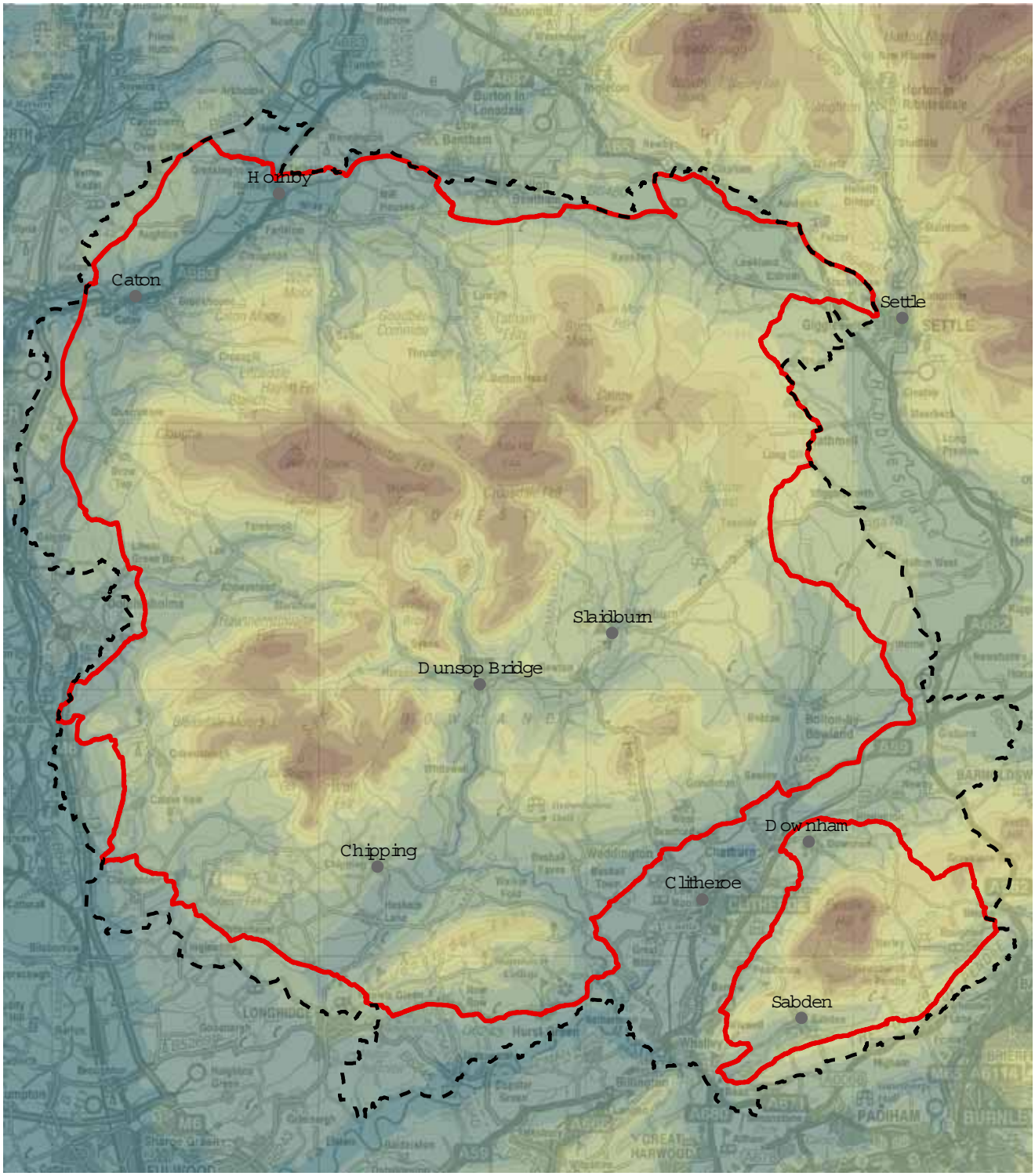
Landform, drainage and climate

2.2.5 The landform of the Study Area (**Figure 2.2**) is strongly influenced by the underlying geology, and the effects of glacial and hydrological processes. The highest landform encompasses the flat plateaux at the top of the Bowland Fells, to the north of Slaidburn and Chipping and on Pendle Hill, to the north of Sabden. Here, the landscape ranges in elevation from 405-561 metres AOD. Adjacent to the high plateaux, a series of pronounced hills are dominant features within the landscape of the Study Area, ranging from 345-545 metres AOD, to the northwest of Chipping and Slaidburn and forming Pendle Hill, to the south of Clitheroe.

2.2.6 At the edges of the hills, topography slopes steeply downwards from 300 metres to 150 metres, forming a transitional zone between the high, pronounced hills and the lower surrounding, gently undulating landscape (0-200 metres AOD) which covers much of the periphery of the Study Area. Within this expanse of undulating lower landscape, pronounced hills (outliers of the central area of plateaux and hills) are key features within the landscape at Longridge Fell and north-west of Grindleton (Waddington and Easington Fells).

2.2.7 Within the central core of the Study Area, the erosive action of water flowing off the main hill summits has cut deep ravines or 'cloughs' through the harder gritstone, forming a radial pattern of drainage from the higher ground. Some of these stream-courses follow the lines of faults, such as the Artle Beck and Foxdale Beck, while others follow the lines of strike or strata, such as the River Roeburn. The resistance of the underyling rock has resulted in steep valley profiles, and terraced cross-section downstream-profiles. Most of the Principle Rivers of the Study Area and their tributaries arise in the central upland core, including the Hodder, Wyre, Roeburn and Hindburn. The Ribble and Hodder drain the southern flanks of the Bowland Fells. These broad valleys, framed by the escarpments of the fells to the north and the moors to the south, broadly pick out the less resistant mudstones and limestones from the harder Millstone Grit rocks which form the fells.

Hodder Valley, near Dunsop Bridge



KEY

Elevation (m)

0 - 45
45 - 105
105 - 165
165 - 225
225 - 285
285 - 345
345 - 405
405 - 465
465 - 545
545 - 720

Study Area

Forest of Bowland Area of Outstanding Natural Beauty

0 2 4 km

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Figure 2.2
Topography and Drainage

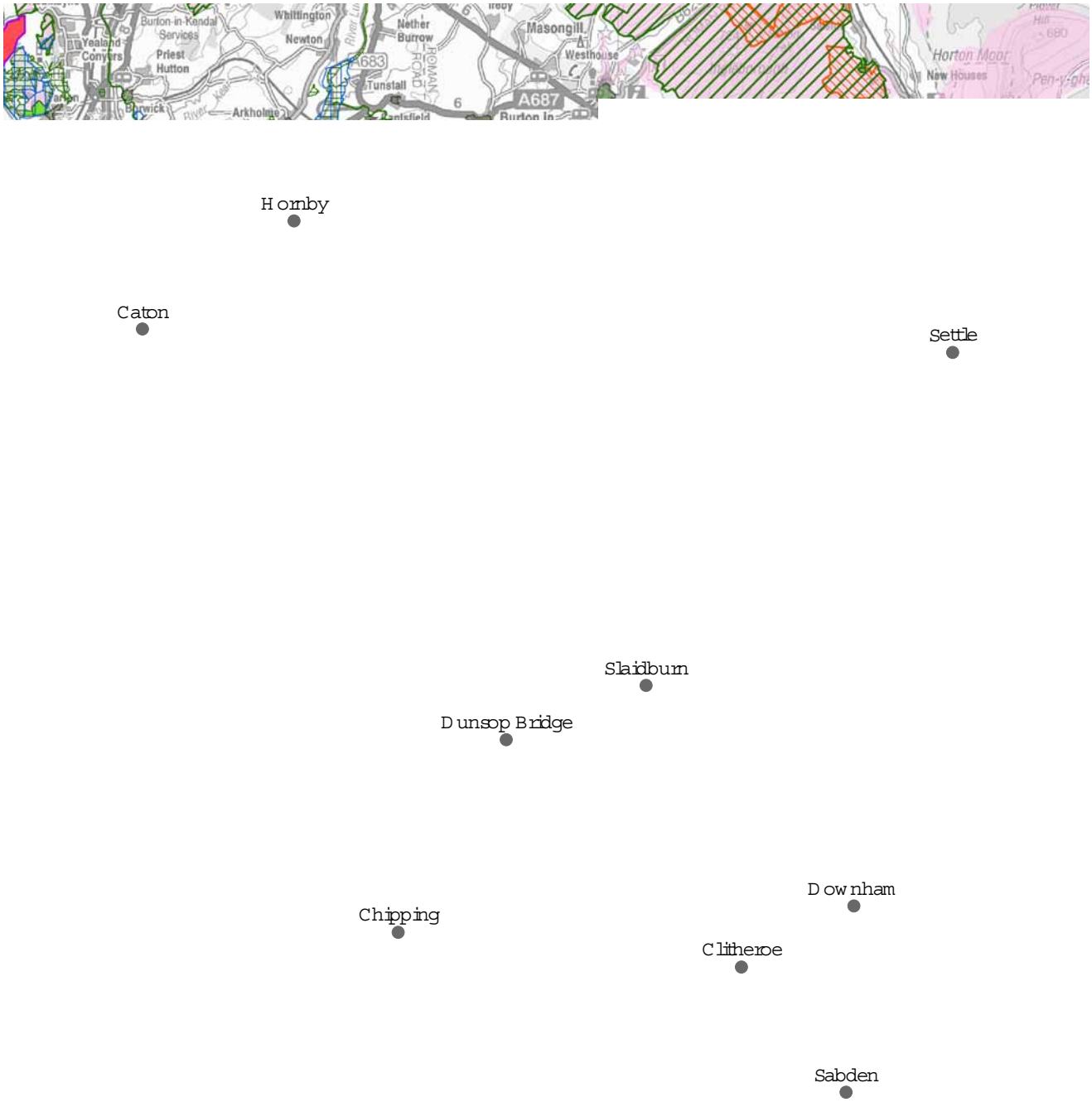

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Figure 2.3
Conservation Designations

2.2.8 To the north of the central fells, the corridor of the River Lune flows east-west across the northern edge of the AONB. This river corridor contrasts with the upland rivers and has formed a wide flood plain within the softer shales and limestone of the fringing lowlands to the north. The floodplains of the rivers Ribble, Lune and lower Hodder are characterised by superficial deposits of river sediments, or alluvium and silt.

2.2.9 Deposits of peat are formed from the dead remains of Sphagnum mosses and Cotton grass in particular, whilst the peat deposits themselves, which 'clothe' the Fells, support specialist blanket bog communities which are easily damaged by over grazing and/or bad moorland burning practices, unless carefully controlled. Large areas of deep peat on the Fells unfortunately now only support degraded blanket bog plant communities because of past management practices. As such, large areas of 'deep peat' are now covered by dwarf shrub (i.e. heather dominated) plant communities as a result of past gripping and moorland burning practices (which have led to peat on the Fells drying out and in some areas being exposed resulting in hagg development and also badly eroded areas of peat notably on top of Hawthornthwaite Fell/ Langden Head, Brennand Fell and Tarnbrook Fell).

2.2.10 The remaining upland areas support soils of the Belmont series that are typically acid, coarse and loamy, often with impeded drainage. Traditionally this poorer land has been converted by drainage and fertiliser and lime application to better grazing in more prosperous times, and then allowed to revert under harsher economic conditions. The limits of enclosure around the moorland edges have therefore fluctuated through time. Large areas of pasture on the Belmont series, which are typically acidic with poor drainage, are dominated by rush (i.e. improved fields which are reverting back to more natural plant communities through neglect of drainage). These support nationally important wading bird populations of lapwing, snipe, redshank and curlew.

View of farmland near Tatham

2.2.11 Much of the remainder of the Study Area is covered by soils based on slightly calcareous 'till' (boulder clay) derived from Carboniferous parent material. These soils are typical of flat or gently-sloping land below 300m and are poorly drained. Much of this land is under permanent grassland but some of the better land on these soils is fertile in-bye, essential for the economic viability of farming and suitable for limited cultivation. By far the best soils occur in the valleys of the Lune, Ribble and Hodder and are associated with brown earth or alluvial gley soils that provide good mixed-farming land and are suitable for the development of deciduous woodland. Those soils, which are slightly calcareous based on till, and cover vast areas of the Study Area, would have supported herb rich pastures and hay meadows as part of past upland farming systems. Since the Second World War, most of these have now disappeared due to the intensification of farming processes. The few that remain are concentrated within the Slaidburn area the Hindburn and Roeburndale Valleys and also Tarnbrook dale.

Hay making at Hareden Farm

Habitats

2.2.12 The Study Area supports a diverse range of wildlife habitats including moorland and mire, semi-natural woodland, coniferous plantation, species-rich grasslands, rushy pasture, rivers and water bodies, which in turn support a wide variety of plant and animal species (see **Figure 2.4**).

2.2.13 The moorland summits of the central Bowland Fells experience conditions of high rainfall, poor drainage and low temperatures. They are dominated by heath and blanket bog, interspersed with areas of upland pasture, especially on the lower slopes, generally below the fell wall. Deep accumulations of peat (formed from the dead remains of Sphagnum mosses and Cotton grass in particular) occur on the entire high plateau. In places this has been severely eroded,

KEY

UK Biodiversity Action Plan Habitats

- Lowland Beech and Yew Woodland
- Lowland Calcareous Grassland
- Lowland Dry Acid Grassland
- Lowland Heathland
- Lowland Meadows
- Lowland Mixed Deciduous Woodland
- Lowland Raised Bogs
- Purple Moor Grass and Rush Pastures
- Undetermined Grassland
- Undetermined Woodland
- Upland Calcareous Grassland
- Upland Hay Meadow
- Upland Heathland
- Upland Mixed Ashwoods
- Upland Oakwoods
- Wet Woodland

- Study Area
- Forest of Bowland Area of Outstanding Natural Beauty

0 2 4 km

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FOREST OF BOWLAND AONB
LANDSCAPE CHARACTER ASSESSMENT

Figure 2.4
Key Habitats

producing a distinctive landscape of pillars and small cliffs of peat topped by heather-dominated vegetation (peat haggs) above exposed gravel or sometimes bedrock. This is notable on top of Hawthornthwaite Fell/ Langden Head, Brennand Fell and Tarnbrook Fell). The subtle changes in underlying bedrock between limestones and gritstones are often displayed in the vegetation cover of the Moorland Hills. Grassland on underlying limestone often appears greener, whilst on gritstone it appears darker green and often includes sedge and rush.

2.2.14 Only a few areas of 'active' blanket bog which are still extremely wet, supporting abundant sphagnum mosses, now remain on the Bowland Fells. These occur mainly on the upper most parts of some Fells most notably on Botton Head, Lamb Hill, Marshaw, Brennand, Whitendale and Croasdale Fells, as well as parts of the Bleasdale Moors (Luddocks and Holme House Fells). Plant communities of heather and bilberry are associated with the dry heath and are generally found on the steep valley slopes. Blanket bog, dominated by heather and cottongrass, tends to cover the tops of the ridge of the fells. Cranberry and crowberry are also characteristic species.

2.2.15 The steep hillsides of Pendle Hill (to the south of Clitheroe) support acid grassland, whilst its plateau summit is dominated by degraded blanket bog and sparse heather moorland plant communities. Acid grasslands within the moorland mosaic are characterised by wavy hair grass, mat grass, heath rush and sheeps sorrel. On lower ground, bracken forms extensive stands on valley slopes.

View of Pendle Hill

2.2.16 The maintenance of heath has provided an excellent habitat for red grouse (for which the moors are managed) and for breeding raptors. The heath and blanket bog also support moorland birds, including golden plover, meadow pipit, skylark, whinchat and wheatear.

Heather burning

2.2.17 The fells are incised by a series of fast-flowing rivers, giving rise to steep cloughs with occasional trees and lush wooded valleys on lower slopes. These rivers support a range of birds including sandpiper, oystercatcher, dipper and grey wagtail, whilst tree cover adjacent to open moorland is ideal for woodcock, redstart, spotted flycatcher and ring ouzel.

2.2.18 Radiating out from the central upland core of the Bowland Fells, the deeply-incised wooded cloughs and river valleys are a key feature of the landscape within the Study Area. Dense, broad-leaved woodlands cling to the steep valley sides of the lower fells. At higher levels, these woodlands are dominated by oak and birch, whilst on the lower slopes they are wetter in places, with Alder and mixed Ash woodland.

View along Langden Valley

Clough Woodland

2.2.19 Extensive areas of predominantly semi-natural ancient woodland (dominated by oak, ash and birch, with wych elm and wild cherry) are concentrated on the ridges, slopes and valley sides of many of the river valleys, including the Hindburn, Roeburn, Wyre, Calder, Ribble and Hodder. Alder and willow are also characteristically associated with the Brock, Wyre and Calder. In the landscapes around Clitheroe, field maple forms a component of the woodland.

2.2.20 On higher ground sessile oak scrub, with occasional rowan, is fragmented and occurs on the steep slopes of the fells and in the cloughs. The narrow valleys of Roeburndale, Hindburndale, Artledale and Littledale support oak and birch woodlands, with a typical ground flora of bilberry, bluebell, wood anemone, wood-sorrel and ramsons. Within the lower parts of the valleys, woodlands are dominated by oak and ash, with birch, wild cherry, alder and rowan. These woodlands often have a rich ground flora, including dog's mercury, woodruff, enchanter's nightshade, primrose, bluebell, wood anemone, wood-sorrel and broad buckler fern. Within the woodlands, steep wet flushes support great horsetail, great wood-rush, pendulous sedge, marsh hawk's beard, yellow pimpernel, bugle and opposite-leaved golden saxifrage.

2.2.21 The different types of woodland provide habitats for a wide range of species, including badgers, foxes, bats, pied flycatchers, redstart, tree pipit, tawny owl, great spotted woodpecker and sparrow hawk.

2.2.22 The largest area of coniferous plantation within the Study Area is at Gisburn Forest, with smaller occurrences on Longridge Fell and Pendle Hill. The main species within the plantations are Sitka spruce, Norway spruce, larches and pines. In addition to these species, Gisburn Forest also encompasses a patchwork of ancient semi-natural woodland and unimproved pasture. Young plantations often support small mammal populations, which attract birds of prey such as kestrel and short-eared owl. In addition, they may support meadow pipits and grasshopper warblers. Mature plantations generally have a limited ground flora, but may support foxglove, bluebells and ferns, in addition to blackbirds, warbler, linnet, whitethroat, songthrush and chaffinch.

2.2.23 Within the Study Area, hay meadows occur in some of the valleys (see **Figure 2.4**), whilst limestone grasslands are associated with the reef knolls of the Ribble Valley. Herb-rich meadows are located in the limestone areas around Slaidburn and along the valleys of Tarnbrook and Hindburn. There are also small patches of unimproved neutral hay meadows on the fringe of the Study Area. The Wenning, Hodder, Tarnbrook and Wyre river valleys support unimproved neutral pastures. Limestone grassland occurs in the Slaidburn and Clitheroe areas, with the largest single area at Worsaw Hill near Clitheroe.

Myttons meadows

2.2.24 The meadows support a wide range of wild flowers and grasses, including pignut, yellow rattle, great burnet, betony, common bistort, lady's mantle, knapweed, common spotted orchid, tway blade, ox-eye daisy and meadow buttercup. The herb-rich grassland supports a wide range of butterflies and other insects, as well as breeding curlews and other waders. Species-rich roadside verges are a key feature of the landscape within the Study area. They often provide a refuge for meadow and calcareous grassland flowers.

Orchids within Myttons meadows

2.2.25 Within the Study Area, parts of the moorland fringe support soils which are typically acidic, coarse and loamy, with impeded drainage. This poorer land has been converted to better grazing by drainage and the application of fertilisers and lime during prosperous times and then allowed to revert, under harsher times, to rushy pasture. Species-poor, rush-dominated marshy

grassland is relatively widespread on the lower fells, particularly to the north and east of Slaidburn and also on Longridge Fell and Pendle Hill. On lower ground patches of marshy pastures and occasional fen meadows occur.

2.2.26 Areas of reclaimed pasture are often dominated by rushes and Yorkshire fog on the edges of the moorland, whilst in other areas wet ground is dominated by purple moor-grass. Species-rich rush pastures may include cuckoo-flower, common marsh bedstraw, bog stitchwort, forget-me-not, ragged robin, marsh pennywort, wild angelica and common spotted orchid. The rushy pastures provide an important breeding ground for waders and also support a large number of insects, including many species of moths and flies.

2.2.27 Thirteen percent of the AONB is designated as a Site of Special Scientific Interest (SSSI) for its habitats and geological features (see **Figure 2.3**). The extensive heather moorlands of the Bowland fells are internationally important as a habitat for upland birds and have been designated as a Special Protection Area (SPA) under the European Birds Directive in recognition of this. They are also nationally important for blanket bog, heather moorland and flushed plant communities.

2.3 Human and Cultural Influences on Landscape Character

Prehistoric Period

2.3.1 Human activity flourished during the Upper Palaeolithic (c. 40,000-8,000 BC), when glaciations were interspersed with long periods of warmer climate. Britain was still joined to continental Europe at this time and during periods of intense cold, such as the last glaciation (25,000-12,000 years ago), populations retreated away from the area to warmer parts of the continent.

Late Glacial Period c. 11000 BC

2.3.2 At the start of the Mesolithic period (c.8000-4000 BC) the climate began to improve, glacial ice sheets retreated and meltwaters separated Britain from the continent. The climate became warmer and wetter and by c.6500BC pine forests had given way to deciduous woodland. Reassessment of the extent of prehistoric settlement in the North West has shown that many known sites require re-interpretation, and in some cases revision of dating. The evidence of finds of artefacts should be seen in the context of our gradually developing knowledge of upland prehistoric settlement. Although not represented by above-ground features, Mesolithic settlement in the seventh to fifth millennia BC is evidenced on the edge of the AONB in the form of flint and chert artefacts and waste flakes from Crook of Lune (from where over 1400 artefacts have now been recovered) and from Halton.

Late Mesolithic Period c.6000 BC

2.3.3 During the Neolithic period (c.4000- 2500 BC) there was a move from hunting and gathering towards farming, which is visible within the archaeological record in the forms of querns, sickles, pottery and polished stone axes. Some of the first evidence of communal burial has also been recorded from this period. Only one Neolithic chambered cairn is known in Lancashire at the Pikestones, on Anglezarke Moor, outside the AONB. Archaeological field survey undertaken in response to erosion of the Anglezarke/Rivington Moors has shown the high potential for locating a wide range of previously unrecorded prehistoric settlement and ritual sites, from very temporary Mesolithic activity lasting a few hours to a possible new Neolithic chambered tomb. Detailed survey of this type has yet to be undertaken within the Forest of Bowland AONB. All attest to human presence at these times but the overall understanding of prehistoric Bowland is limited – for example, there are no known settlement sites.

2.3.4 In the Bronze Age period (c.2500-750BC) new types of flint tool and pottery design were introduced, alongside metalworking techniques. Within the Study Area, traces of prehistoric activity begin to survive above ground from the third millennium BC in the form of a small number of monuments including the cairn on Parlick Pike and the nearby Bleasdale Circle. The latter comprised a timber circle 11metres in diameter, contained within a penannular ring ditch, surrounding a central feature which probably contained cremations in Collared Urns. The whole complex was later covered by a mound and 46m diameter circle or palisade. The earlier phase has been radiocarbon dated to c. 2200 BC, but this date is not considered reliable. The Manor Farm, Borwick ring ditch and inhumation burials (which lie just outside the north-west corner of the AONB) are more reliably dated to 1740-1640 BC, with a secondary burial in c. 890-790 BC. This site revealed both the complex nature of Bronze Age burial practice, and also the longevity of significance of such monuments as landscape features. There were Bronze Age cemeteries in typical skyline positions around Lancaster, in the Bowerham and Lancaster Moor (now Williamson Park) areas, and many hill top cairns are thought to have 'served as markers of territory'. Lowland burial mounds exist more rarely, as for example at the confluence of the rivers Ribble and Calder south-east of Stonyhurst.

Early Bronze Age c. 2500 BC

2.3.5 During the Iron Age (750BC - AD79), iron working technology was introduced to Britain from the continent. The number of known later prehistoric settlement sites within the AONB boundary is small, and it is largely impossible, without excavation, to separate Iron Age settlements from the first millennium BC from those of the Romano-British period, and there is evidence to suggest that this type of settlement continued into the Early Medieval, pre-Norman Conquest period. From a number of excavations on round houses of this period in Lancashire in recent years, the closest to the study area is that at Barker House Farm, south of Lancaster

University. Unexcavated examples at the Cragg, Littledale are probably Iron Age, as may be the very complex enclosed settlements and field systems at High Park, Cowan Bridge, a short distance outside the AONB. The nearby enclosed settlement at Castle Hill, Leck, is a particularly fine example of upland late prehistoric settlement, for which evidence is now beginning to appear more frequently in Lancashire. However, Prehistoric people have left a lasting impression upon the wider landscape, in particular assisting the formation of the upland moor through clearance and cultivation.

Roman Period

2.3.6 During the Roman period (79 - 410 AD) the most enduring landscape change to take place in the Study Area was the construction of the Roman road network. At least two are known to cross the Study Area. One runs north from Manchester to the Fort at Ribchester, then on to Over Burrow Fort in the Lune Valley, before continuing on to Carlisle. The limited development that has occurred in the upland moor has allowed much of the route to survive undamaged for the past 2000 years, while one section visible from Jeffrey Hill has become fossilised in the field boundary pattern. The second road runs from Kirkham in west Lancashire the Lancashire Fylde, to York via Ribchester passing to the north of Downham as it crosses through the AONB. The northbound route is particularly clearly defined, for example, north of Cherry Tree House, on its first approach to the River Hodder, and north of Cow Ark where it departs from the line of the modern road. A road from Ribchester to Galgate south of Lancaster is likely to have passed through the south-west corner of the AONB, while a number of routes through the Lune Valley may also have existed. At least some of the Roman roads in the AONB have been shown to continue in use for many centuries into the medieval period, until they failed to satisfy local administrative and economic requirements.

Roman Period c. 100 AD

2.3.7 Known Roman monuments include pottery kilns discovered at Quernmore, a milestone found near Caton and an iron roasting hearth. The kilns appear to have been producing pottery and tiles from the first to the mid second centuries, predominantly for the fort at Lancaster.

Early Medieval Period

2.3.8 After the Roman occupation, much of the Roman infrastructure ceased to be used. Prior to the Norman conquest (1066), Lancashire was influenced by Saxon and British realms. Place names prove to be one of the few sources of information about these societies as they did not keep documents. They suggest that well into the seventh and eighth century the county was populated by British speaking peoples. For example, the place name Bowland is believed to be derived from 'Bu' - the Old Norse word for cattle. There are many other examples in the landscape including the Norse 'thwaite', as in Hawthornthwaite, which indicates where a clearance was undertaken for arable land. Places such as Pendleton contain the British word 'penno', which means a prominent steep ended hill. The best known of these is Pendle Hill, which can literally be translated to 'hill hill hill' as the Saxons added the suffix 'hill' to its original British name 'Penno' producing Pennehill, which was later corrupted to Pendle and which has become known as Pendle Hill.

2.3.9 A significant number of place names display combined British and Anglo Saxon influences and by the late sixth century the tribal kingdoms of North Lancashire were absorbed into Anglian Nothumbria. By the ninth century, place name evidence suggests a gradual and peaceful settlement of hitherto unused land by Hiberno-Norse peoples. The Ribble Valley is likely to have functioned as a major routeway from the Viking York kingdoms to the Irish kingdoms.

2.3.10 Some settlements in Bowland are likely to have been in existence at this time. For example, the Domesday record reveals that Grindleton was head of a large early medieval estate.

Medieval Period

2.3.11 By the end of the medieval period the foundations of the modern landscape had been laid. Field and settlement patterns were established, with dispersed farmsteads across much of the upland area and nucleation occurring in the more fertile and hospitable valleys. Commons, waste and woodland were all comprehensively managed. Importantly, it was during the medieval period that Royal Forests were established across the Study Area. The concept of Royal Forests dates from the late 6th century AD. The word 'forest' is derived from foris, which 'implied land set apart or placed in defence and subject to special conditions imposed by the royal will'. The system was a Norman import at the Conquest of 1066. If the king 'alienated' – i.e. let or sold – the whole part of one of his forests, then this became a 'chase'.

Medieval Period c. 1300 AD

2.3.12 Today, the Forest of Bowland is a name that has been given to the AONB, but in the Middle Ages, just a portion of the Bowland Fells was actually part of the Royal Forest of Bowland. There were four other Royal Forests within the modern boundaries of the AONB, all belonging to the earldom of Lancaster – Bleasdale to the west, which included the Forest of Bowland after 1311, Quernmore, Wyresdale and Pendle. There was also a chase belonging to Hornby Castle, located in the Roeburn and Hindburn valleys in the north. Forests were places for the hunting of deer, not for trees as the name might suggest and the designation of much of the area as Forest had a controlling impact upon the landscape, restricting development and prohibiting change. The desire of the King to hunt prevented landowners from clearing and extending cultivated areas, planting hedgerows to deter deer from eating crops and creating or expanding settlements within the Royal Forests.

2.3.13 Officially, Forest Law was not revoked until 1507. However, Forests were costly to administer and maintain and in the later medieval period a move towards enclosed deer parks began, these being smaller and more manageable. Deer parks have left their mark upon the modern Forest of Bowland AONB landscape. A map showing the location of Deer Parks within the Study Area is shown in **Appendix H (Figure H1)**. In some areas the deep bank and ditch of the park pale that once surrounded a park survives, but more commonly place names including 'park' and 'laund' (meaning a clearing where deer grazed) indicate their former locations. It is possible that many salter place-names may be contractions of the Latin saltatorium indicating 'deer leaps'. These encouraged deer to enter a park from open country, but they could not exit it because of the breadth of the ditch within the park pale. There are three examples of potential saltatoriums within the Forest of Bowland AONB; two on the boundary of Leagram Park and another at High Salter, which permitted transfer of deer from the Forest of Bowland

into Roeburndale Forest. See **Appendix H** for descriptions of the Deer Parks within the Study Area.

2.3.14 In addition to the Royal Forest in medieval times, an increasingly high percentage of the land was used for stock-rearing, known as vaccaries. The word vaccaria (from the Latin vacca, 'cow') clearly had several meanings, being used both of a building to house cattle, but also and more commonly to indicate a whole cattle-rearing establishment. Vaccaries are recorded throughout northern England. An example within the Forest of Bowland is that within the Bleasdale 'round' below Fairsnape and Parlick Fells. Other examples include Fairsnape, Catshaw, Dinkling Green and Barley. A map showing the approximate location of former vaccaries within the Study Area is shown in **Appendix H (Figure H2)**[6]. There is little or no evidence of the Forest of Bowland vaccaries having physical boundaries until a very late period, by which time they were vaccaries in name only. The notional boundaries nevertheless remained remarkably constant over time. Some place-names suggest that horse studs may also have been an element of the work of vaccaries, as at Stod Hey in Fair Oak vaccary.

2.3.15 The landscape was also being used for extensive sheep grazing, evidenced by the existence of sheepwalks, sheepfolds and sheepwashes[7]. A 'sheepwalk' can be defined as an area of fell and associated in-bye land used for extensive sheep grazing. Sheep were gathered and brought down off the fells several times a year for 'washing', 'salving', 'clipping', 'tupping' and to be taken to market. Sheep were gathered off the fells and penned in sheepfolds near the wash or dub. In the landscape, stone walled enclosures and broken stone walls near to streams/brooks are evidence of redundant sheepfolds and associated washing places[8]. A combination of natural landscape features such as watercourses or gullies and man-made boundaries (usually drystone walls) were used to assist in bringing the stock off the fells. Some of these exit or entry points to the fell were funnel shaped to feed into a wide track or enclosure. Washfolds were built near to streams/brooks so a ready supply of water was available for spring washing. Water was often diverted from the stream/brook into a culvert or the stream was temporarily dammed. Washing was carried out in early June and can be recorded back to the 16th century. Salving the sheep (the smeering into the fleece a mixture of tar with butter or whale grease was carried out in late autumn).

2.3.16 Washing was necessary due to the salve from the previous autumn and peat and grit in the fleece. Clean, washed wool was worth more to the wool board. The smear helped to keep the sheep warm and free from scab and other parasitic diseases. Both washing and salving were

[6] Based on information provided by Neil Archaeological Services, March 2009.
[7] Based on information provided by Tarja Wilson, July 2009
[8] Based on information within 'Old Sheepwashes of Bowland and Chipping' (compiled by F Marginson and H Wallbank, 2007).

replaced by dipping in the first decades of the 20th century (dipping became compulsory in 1905). Within the drystone walls, a creep hole may still be evident. Creep holes provided a way for sheep to pass from one field to another, especially if there were also cattle in the fields. They also provided a mechanism by which sheep could be counted. Potential examples of the above features within the Study Area can be seen on Parlick and Saddle Fell (near Chipping), Dunsop Fell (near Slaidburn), Hareden Fell/Totridge (near Dunsop Bridge), Oakenclough/Calder/Stake House Fells (Bleasdale) and Mallowdale Pike (near Wray).

Sheep washing, Higher Underwood, Newton Fell, c 1920's

Lamb Hill sheepfold before restoration

2.3.17 During the Medieval Period (AD 1066-1500), monastic sites were established in the Forest of Bowland. Monastic houses such as Fountains and Furness and probably also Sawley and Whalley Abbeys in and adjacent to the AONB were famous for their stock-farms. Grange Hall, at one time called Gradalehals and now under Stocks Reservoir, is thought to have been the site of a vaccary belonging to Kirkstall Abbey.

Industry and the Modern Period

2.3.18 The Industrial Revolution generally had little impact on the Study Area's landscapes, unlike much of Lancashire and Yorkshire. Devoid of coal reserves and away from the main valleys with fast flowing streams to power the industrialisation of the wool and cotton industries, the Forest of Bowland was largely ignored by the builders of turnpike road, canals and railways. Instead, the traditional patterns of rural life have been maintained by a small number of landowners. However, there are some signs of industrial activity including small-scale lime production, quarrying, mining and paper and cotton mills, which have influenced the landscape and many local villages. This activity has left clear signs in the landscape including remnant lime kilns used to make quicklime for building and field improvement.

A view of Sugarloaf from Knowlemere

2.3.19 Quarrying of sandstone at Wray, Ellel, Whittington, and the slopes of Clougha was generally on a small scale. Flagstone and slate quarries are found at Clougha and Claughton Moor. Quernstones were also prepared on the fells at Clougha. Littledale Slate quarries in the Forest of Bowland include Black Hole, Cabin Works, Seafe Gap, Watery Works, and Old Town. Backsbottom Quarry was an important slate quarry, dating from the early seventeenth century.

Bricks were also produced in the Study Area using local shales, such as the Claughton Manor Brick Company opened in c.1896 and the former Brookhouse Brick Company, which closed in the 1960's. Lime burning was undertaken at Chatburn, Downham and Twiston during the 18th century. After 1850, limestone extraction and cement making became major industries around Clitheroe and Chatburn. Associated with this, and the construction of mills, the development of the railway, led to a growth in industrialisation within the Ribble Valley.

Claughton aerial ropeway

2.3.20 Mills were also a common feature in the landscape from the 19th century. By 1830 there were seven mills in the Lune Valley working cotton, silk, worsted and linen. Mills were reliant on water power and were therefore often located adjacent to watercourses. This resulted in the creation of associated features such as lodges, reservoirs and mill races. At Caton there were at least five mills for various purposes in use from 1780 or earlier until about 1970. Gresgarth Hall corn mill operated from 1780 until 1815 became a threshing mill in 1843 and later a saw mill. Forge Mill was a cotton mill built c.1796 on the site of a former iron forge. Willow Mill is the best remaining local example of an early water-powered textile mill, the earliest parts dating from before 1790. There were also mills at Galgate, Halton and Bentham, with smaller factories at Wray, Wyresdale, Holme, Burton-in-Lonsdale and Catterall. Calder Vale, within the AONB, near Garstang, remains operational today as a mill community. The Ribble Valley was also a key location for early stages of industrialisation in the cotton industry. Twenty four mills were built within the Ribble Valley between 1850 and 1865. Associated with this, handloom weaving was undertaken at many sites within the Study Area, including Chatburn

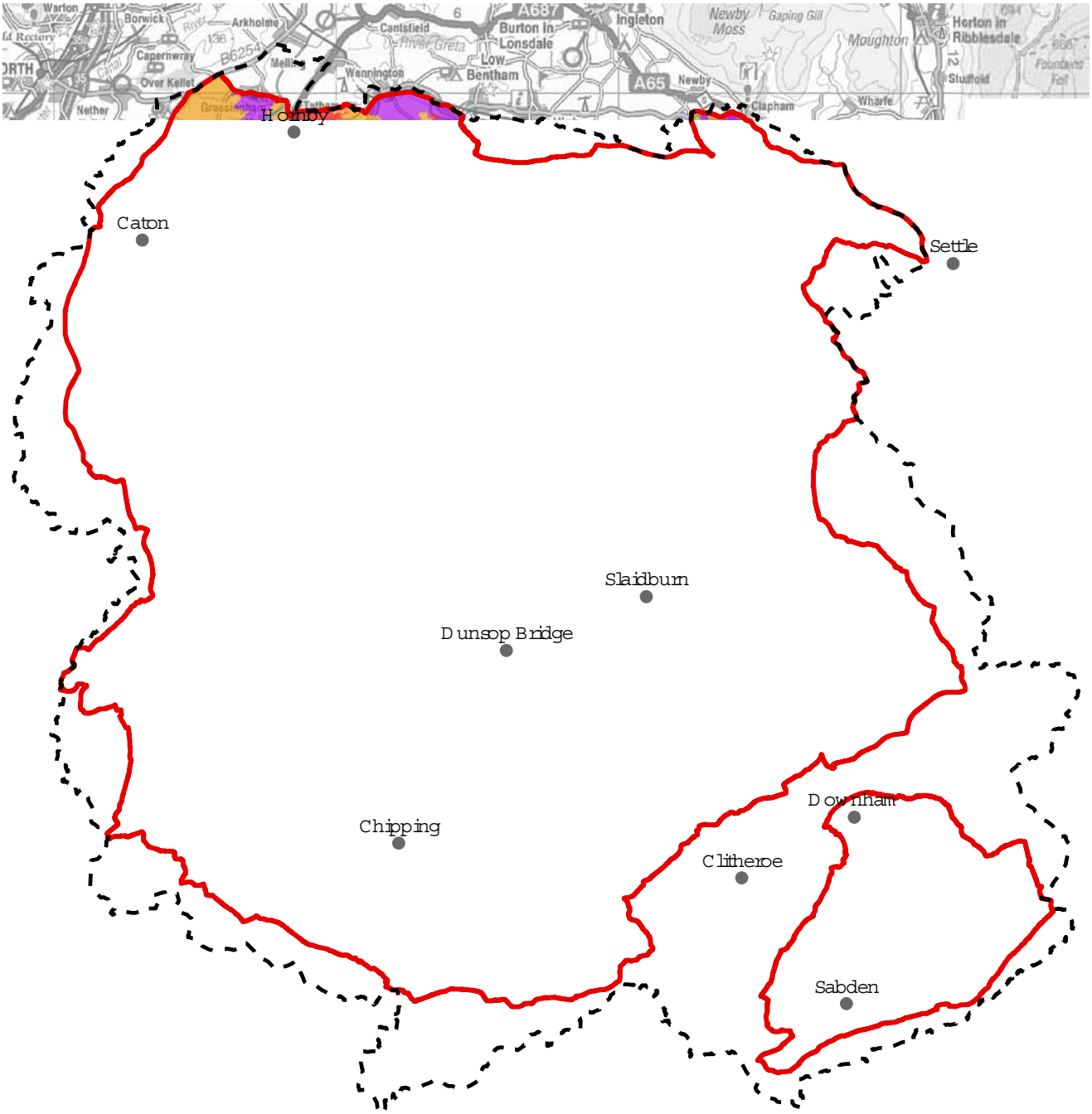
(which was the centre of activity during the first half of the 19th century), Rimington, Grindleton, Slaidburn, Newton and Bolton-by-Bowland. Carding and jenny workshops are also thought to have existed along the smaller streams of the area, for example at Sabden and spindle making also took place in Chipping. Sabden was a farming valley from the 13th century onwards and the remains of 'vaccary walls' from this time can still be seen in some areas. From the 19th century, the farms prospered as they supplied milk, wool and meat to the nearby developing towns of East Lancashire. Sabden also developed its own industries, with calico printing, cotton spinning and weaving all taking place at the Union, Victoria and Cobden mills. Union mill carried on weaving until 1964, and today it houses Pendle Antique centre; whilst Victoria mill became a carpet factory in its later life. Richard Coben was an important figure in the 1840s Free Trade movement and he founded Sabden Primary School in the village in 1836 – one of the first in the country to be independent of any church.

2.3.21 Mining within the Study Area is thought to have begun in the medieval period. Much of the mining was small scale, for lead. Two phases of mining are thought to have occurred in the nineteenth century[9], centred within the Brennand and Whitendale valleys. At Whitendale and Brennand mines there appears to have been mining activity prior to 1800. Other mining sites within the Study Area include those at Sykes, Newton Fell, Dinkling Green, Roeburndale, Burghill Moor, Ings End and Moor End (near Rimington). Small lead mines were also opened at Harrop Fold in the nineteenth century, however it is thought that these quickly proved to be unprofitable.

Historic Landscape Character

2.3.22 The Lancashire Historic Landscape Characterisation Project (HLC) was devised to enhance understanding of the historic landscape and its development. Landscapes within the Study Area were included within this project, which divided the area into sixteen different historic landscape character types. These describe the current landscape within each type in terms of its predominant historic character and origins. As shown on **Figure 2.5**, these include: open and enclosed land, woodland, settlement, recreation, ornamental landscapes, industry and major water bodies. One of the aims of the Lancashire HLC Project was to input into the Lancashire Landscape Strategy, which has informed the definition of a landscape typology for the Study Area (see Section 3.0). Further detailed information on the different types of historic landscape can be found within the accompanying report to the Lancashire HLC Project[10].

[9] Based on information within Industrial Heritage: A Guide to the Industrial Heritage of the Ribble Valley.
[10] Lancashire Historic Landscape Characterisation Programme: A repot on the context, method and results for Lancashire, Blackburn with Darwen and Blackpool Areas (2002), J. Ede with J. Darlington on behalf of Lancashire County Council and English Heritage.



KEY

Historic Landscape Character Types

- Ancient and Post Medieval Settlement
- Ancient Enclosure
- Ancient and Post Medieval Industry
- Ancient and Post Medieval Ornamental
- Ancient and Post Medieval Wood
- Lowland Moss and Grassland/Sc
- Modern Enclosure
- Modern Industry
- Modern Ornamental
- Modern Recreation
- Modern Settlement
- Modern Woodland
- Moorland
- Post-Medieval Enclosure
- Reverted Moorland
- Water

- Study Area
- Forest of Bowland Area of Outstanding Natural Beauty

0 2 4 km

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Figure 2.5
Historic Landscape Character Types

2.4 The Landscape Today

Land Cover and Management

2.4.1 Today the Study Area remains a predominantly rural landscape. The higher areas are dominated by moor, heath and rough grassland, whilst the lowland fringes encompass a patchwork of improved pasture and meadows. Agriculture is the dominant land use within the Study Area. Rough grazing is also a major land use on the moors and heaths of the hills and plateaux. The dominance of permanent pasture is a reflection of the relatively damp climate of the Forest of Bowland and the suitability of the soils for grassland. Sheep and beef farming predominate throughout the uplands, whilst dairying is a major land use in the Ribble and Lune Valleys and much of the lowland farmland. The landscape of the Study Area is dotted with a pattern of small hamlets and villages, which are connected by a network of narrow lanes. More extensive urban development within the Study Area is focused on the Ribble Valley outside the AONB around the town of Clitheroe.

View from Hookcliffe

2.4.2 Extensive areas of moorland within the Study Area are managed specifically for grouse shooting. This has resulted in the installation of a number of access tracks for shoots, shooting butts and cabins within the landscape.

Gamekeepers on the Fells

2.4.3 Woodland within the Forest of Bowland consists of a combination of small deciduous and coniferous woodland patches, and linear woodland along river and brook corridors. Along these river and brook corridors, much of the broadleaved native woodland is ancient and semi-natural (for example within Roeburndale, Hinburndale, Littledale and parts of Wyresdale). In addition, pockets of ancient woodland are found on the steep-sided river and stream slopes of the Ribble and Lune River catchments. Several of the patches of planted deciduous and mixed woodlands occur on estates and formal parkland, such as at Abbeystead, Downham and Quernmore. The only sizeable area of plantation is Gisburn Forest, which was planted in the 1950's and contains pockets of ancient semi-natural, deciduous woodland. In more recent years, patches of plantation woodland have been planted at Gisburn and on Thrusgill and Longridge fells.

View of Hindburndale

2.4.4 In the late 19th century, legislation was enacted to empower the Fylde Waterworks Company to provide a water supply to the developing industrial towns and coastal resorts of Lancashire. The Corporation of Preston waterworks were also permitted to take water from the upper reaches of the Hodder, with intakes built on the Langden and Hareden streams in addition to a brick culvert, which carried water to storage reservoirs in Longridge (to the south of the AONB). The Blackburn Corporation also obtained an Act of Parliament in 1877 to gather water in the Dunsop intakes at Whitendale and Brennand. Many of the pipes were laid underground, although aqueducts were needed near Thorneyholme and over the Ribble at Dinckley. This legacy of successive generations of water gathering has left its impression upon the landscape of the Study Area, notably at Stocks Reservoir, constructed between 1922 and 1932 by the Fylde Water Board to service Blackpool and the coastal region. This resulted in a dramatic change to the landscape of the Hodder Valley, flooding the hamlets of Dalehead and Stocks in Bowland. Today, the largest single landowner within the AONB is United Utilities, which manages a large area of the fells primarily for water catchment, supplying Fylde and Blackpool. The course of the Haweswater aqueduct also crosses the Study Area (forming part of the Manchester supply system) and introduces associated engineered features to the landscape.

Field Patterns and Boundaries

2.4.5 The field patterns and boundaries within the Study Area date from several periods and include both modern and ancient features. Many boundaries survive from the medieval landscape and some from earlier periods. However, the landscape is dominated by hedgerows and walls which were established during successive periods of enclosure between the sixteenth and nineteenth centuries. Ancient Enclosure (shown in purple on the map) and Post-Medieval Enclosure (shown in orange on the map) is concentrated within the lowland valleys and farmlands around the periphery of the Study Area.

View of field pattern and boundaries

2.4.6 Ancient hedgerows line field boundaries, roads and lanes. They predominate in lowland areas, whilst drystone walls are characteristic of the moorland hills and fringes. The underlying geology of the Study Area is often reflected in the pattern and type of drystone walls. The central Bowland fells, which rise to the north of Slaidburn and west of Chipping are underlain by a combination of gritstones and limestones. Gritstone walls tend to exhibit rough hewn blocks of stone with parallel rows of through stones or rounded boulder stones, whilst limestone walls consist of large blocks, which are often crumbling as a result of the softer nature of the rock. Water rounded stones from the glacial deposits are often a feature of field walls and farm buildings near water courses and valley bottoms.

Croasdale sheepfold

Settlement and Buildings[11]

Building Materials

2.4.7 The rocks of the Study Area are the source and main design influence of the local vernacular buildings. The gritstone of the high central moorland dominates the northern parts of Bowland, the southern areas around Waddington and Longridge fells and Pendle itself. Within the Ribble Valley, the Hodder above Dunsop Bridge and beyond Slaidburn exposed limestones yield both building stone and lime for mortar and agriculture.

Downham village

[11] Information within this section of the report provided by James Riley – See Appendix B.

2.4.8 In the north east parts of the Study Area, from Bowland Knotts through Eldroth as far as the Ribble near Settle, exposed gritstone outcrops have been partly quarried away for field walls and local farmsteads. Waddington Fell and Longridge in the south west are the sites of larger quarry workings, each of a distinctive colour and some still in use. Small scale limestone quarries and adjacent limekilns remain visible in Whitewell and Slaidburn areas. Larger scale quarries east of Clitheroe have significantly altered the local topography, removing a large part of the small hillocks which were a feature of the river valley between the castle and Downham. Views of Chatburn and the Ribble valley from the hills are now dominated by the cement works.

2.4.9 Quarried gritsone and limestone is visually sharply irregular in the rubble construction of farm buildings or drystone field walls. The capping stones of field walls in gritstone are often laid angled to drain rainwater. Local triangular shaped limestone or gritstone copings perform the same function. Dressed or coursed gritstone was originally used only in churches or more important domestic buildings. By the 19th century dressed or coursed gritstone became more common in the main facade of farmhouses or "model" farm buildings. Quarried limestone was usually rendered for waterproofing. Its removal in recent decades has been replaced by hard cement pointing.

Early Buildings

2.4.10 The earliest surviving and most prominent buildings which feature in the Bowland scenery are the castle at Clitheroe and the medieval churches which survive in the main villages. Largely complete early churches survive in the south at Chipping, Slaidburn and Bolton by Bowland. Medieval towers of early churches survive at Waddington, Clitheroe and Downham where 19th century neo-gothic "restorations" of churches in turn replaced 18th century restorations. In the north part medieval churches survive at Caton and Hornby. Over Wyredale and Tosside are 17th/18th century as is Newchurch in Pendle (with a 16th century tower). All other churches are 19th century foundations.

Gentry Houses

2.4.11 The earliest larger houses of the local gentry are late 16th or 17th century in origin. The most prominent and important is Stonyhurst below Longridge, where the Shireburns fine house can still be identified among the Jesuits 19th century collegiate additions. Fine early 18th century gardens and early 18th century garden buildings also survive, as do 17th century almshouses in the village. Other significant early houses include Hammerton Hall above Slaidburn, an Elizabethan house of recognisable Pennine Style. Browsholme Hall (home of the Parker family for 500 years) was similar in design until Wyatville's alterations at the beginning of the 19th

century. Lawkland in the north east corner of the AONB is of the same period but more characteristic of north Lancashire or Westmorland.

Stonyhurst

Hurst Green

Whiteholme Hall, Slaidburn

2.4.12 Handsome late 18th or very early 19th century large classical houses are found at Downham (incorporating the Assheton's earlier building) below Pendle, and at Quernmore in the north west where the Gibson family of Preston built a new house on the old Clifford Estate. Nearby Gresgarth Hall is castellated and early 19th century "Gothic" incorporating an earlier Pele tower. The handsome contemporay grounds were further embellished at the end of the 20th century by their owner, the renowned garden designer Arabella Lennox-Boyd. Later 19th century houses include Hornby Castle on the north edge of Bowland.

2.4.13 A number of smaller late 16th/early 17th century houses survive, again of the Lancashire Pennine type. The best are on Pendle, Sabden Hall and Roughlee Hall, and in south Bowland, Harrop Hall, near Slaidburn. A similar house at Whitewell is now incorporated into the 19th century buildings of the famous Inn at Whitewell. At Slaidburn, the 18th century Townhead of the Wigglesworth's has recently been sold from the King-Wilkinson estate after being left unoccupied for decades. The early 19th century Leagram Hall above Chipping was replaced in the 1960's by a smaller classical house for the Weld-Blundell estate. Again, fine 19th century parkland, grazed by White Park Cattle, surrounds the modern house.

The Inn at Whitewell

19th Century Estates

2.4.14 Sales in the 1830's and 1840's of the landed part of Clitheroe Castle estate brought the Peels from their prosperous dyeworks in Accrington to Knowlmere in the Hodder Valley west of Slaidburn. A new house was built and plantations made to ornament the estate. Further west a branch of the Towneleys from Burnley bought the Whitewell Estate. Their resident agent improved and remodelled many of the tenant farms and built a Roman Catholic church at

Dunsop Bridge. Wide eaves, slate roofs and distinctive sash windows characterise the new farmhouses. Model farmbuildings with lower pitched hip roofs appear in the farmyards. All introducing a new form of building to this part of Bowland. The estate woodlands include conifers, especially around Thorneyholme, the new principle house and estate church. The Whitewell Estate is currently owned by the Duchy of Lancaster.

2.4.15 At Slaidburn the King-Wilkinsons by amalgamation through marriage and purchase united three or so land holdings into a sizeable estate by the latter part of the 19th century. Substantial new houses were built at Whiteholme and Dunnow. Mid 19th century tree plantings have created a parkland setting for the whole village, by then largely estate owned. Tennant farms were improved, barns and farmhouses rebuilt albeit in a less distinctive style than at Whitewell. A stranger improvement visually was the cement rendering of old buildings (including the parish church) at the end of the 19th century. Much of the outlying eastern part of the estate was sold in the 1920's.

2.4.16 At Bolton by Bowland the Bolton Hall estate is best recalled by the layout of the village at the fine 18th century gates to Bolton Hall. Widely spaced picturesque houses and rows of cottages, church, pub, former parsonage and school all survive despite the demolition of the Hall and break-up of the estate. Below Pendle at Downham, the Asshetons rebuilt their house in the 1830s, in handsome severe classical style by Webster of Kendal and rebuilt the parish church in perpendicular style in 1910. The village itself comprises older stone cottages and farmbuildings. The surrounding deep leafy lanes are bordered by traditionally laid hedges, carefully trimmed to favour hedgerow trees. Further west the Starkie estate, though shorn of its principle house, retains its extensive 19th century woodlands stretching down to Padiham where the modern bypass has severed the Gothic entrance arch from its park.

2.4.17 Abbeystead at Wyresdale on the west side of Bowland was established in the late 19th century as a major sporting estate on Bowland, and remains so to this day. The house was built in Elizabethan style by the Earls of Sefton from Liverpool. Their estate buildings, woodlands and gardens in the valley all compose a romantic whole below extensive, well managed grouse moors above. Since the middle of the 20th century, Abbeystead has been part of the Grosvenor Estate.

2.4.18 The differing land ownership of estates is reflected in the distinctive local vernacular colours of house and farm window frames and doors. Examples include; Downham Estate (green) Abbeystead Estate (grey) Huntroyd Estate (red), Bleasdale (green) and King Wilkinson Estate (white).

Farmsteads

View of Catlow Farm

2.4.19 Outlying farmsteads in the valleys and more often fringes of Bowland remain the most conspicuous buildings in the landscape. All the older buildings are stone walled with either stone slated roofs or later, the blue slate of 19th century rebuilding. Often in the smaller remote farms the house and main barn forms one building, a continuation of the longhouse tradition which predates stone building. In some parts of Bowland 19th century examples can be found. The earliest houses retain small stone mullioned windows and the headstone over doorways is often dated with the initials of the owner. The houses are thick walled and low lying, making best use of what shelter the landform of the farm can offer. Additional shelter from the dominant west wind is often provided by small farm woods or plantations. These are the farms of the higher remoter parts of Bowland. Good examples survive in the deep northern valleys; Littledale, Roeburndale and Lowgill. Several survive around Dale Head at the top of the Hodder Valley, although many were destroyed following the building of Stocks Reservoir in the 1920's when Forestry Commision plantations replaced open farmland. Stephen Park in Gisburn Forest is a good example showing its development through the 17th and 18th centuries. Many of the farmsteads within the Study Area were also built along springlines.

2.4.20 Many of the larger, more prosperous farms along the east and southern edges of the AONB were modernised and rebuilt during the 18th and early 19th centuries. The farmhouses are taller and larger, often of recognisable Georgian style with sash windows arranged in three bays on the principle south facing facade. At the rear are smaller north facing windows and a tall central staircase window, sometimes round headed. Examples can be seen in the wide

Ribble Valley towards Settle or above Clitheroe, as well as on the edges of the larger villages. Barns, too, are larger with lower pitched roofs.

2.4.21 More modern twentieth century additions to these larger farms include extensive pre-fabricated covered yards. Earlier examples built around the 1960's are roofed and walled in pale coloured corrugated cement asbestos similar in form to the black painted corrugated iron of earlier 20th century farm buildings. Later 20th century examples are often even larger. Steel frames support coated steel roofs and timber "Yorkshire boarded" side walls. The character of the larger modernised farmsteads retains, on a larger scale, the workman-like character of their smaller neater predecessors. Groups of simple buildings sit within the wider landscape of their surrounding farmland, which even with the clutter of silage clamps and machinery of modern agriculture does not really disturb. This established rural character is changed or even lost when old farmsteads and barns are sold off and converted as landholdings are amalgamated to meet the needs of modern farming.

Old and new farm buildings within the landscape

3.0 LANDSCAPE CLASSIFICATION HIERARCHY

3.1 Introduction

3.1.1 This section describes the context provided by the hierarchical classification of Landscape Character Units defined at the national and county levels. Within this context, the classification of Landscape Character Types and Landscape Character Areas defined for the Forest of Bowland is presented.

3.1.2 The descriptions of individual Landscape Character Types and Areas in Section 4.0 should be read in conjunction with this information to ensure that the contextual relationship with the wider landscape is understood.

3.2 National Landscape Context

3.2.1 The Character of England map[19] provides the national framework for more detailed assessments carried out at local level. The National Character Areas defined at 1:250,000 scale provide the context for defining boundaries of landscape character units within Lancashire and the Forest of Bowland.

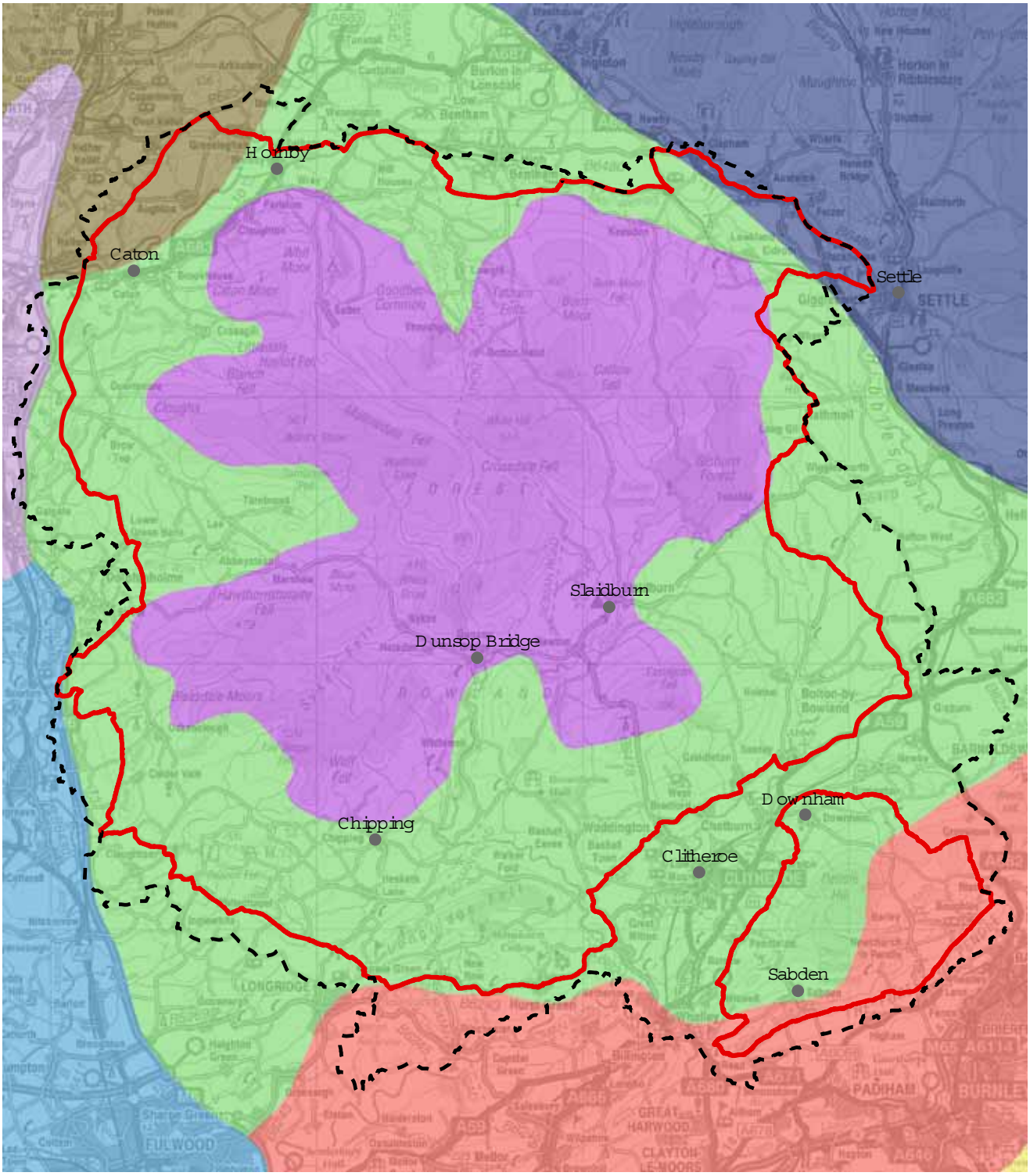
3.2.2 As illustrated on **Figure 3.1**, the Forest of Bowland is covered by the following National Character Areas:

- Morecambe Bay Limestones (20);
- Yorkshire Dales (21);
- Bowland Fringe and Pendle Hill (33);
- Bowland Fells (34);
- Lancashire Valleys (35).

3.3 Regional Landscape Context

3.3.1 As described within section 1.1.9, the North West Regional Landscape Partnership (with support from Natural England) is developing a Regional Landscape Character Framework for the North West (see **Figure 3.2**). This project identifies Landscape Character Types for the entire North West Region. Within the Study Area, emerging mapping (June 2009) has identified a range of Landscape Character Types, including Open Moorland Plateau, Upland Valleys, Upland Fringes and Ridges, Valley Meadowlands, Drumlin Farmlands and Industrial

[19] Character of England Map (Countryside Agency, English Nature, RDS, English Heritage, updated 2006)



KEY

- Bowland Fells (34)
- Bowland Fringe and Pendle Hill (33)
- Lancashire Valleys (35)
- Morecambe Bay Limestones (20)
- Morecambe Coast and Lune Estuary (31)
- Lancashire and Amounderness Plain (32)
- Yorkshire Dales (21)
- Study Area
- Forest of Bowland Area of Outstanding Natural Beauty

0 2 4 km

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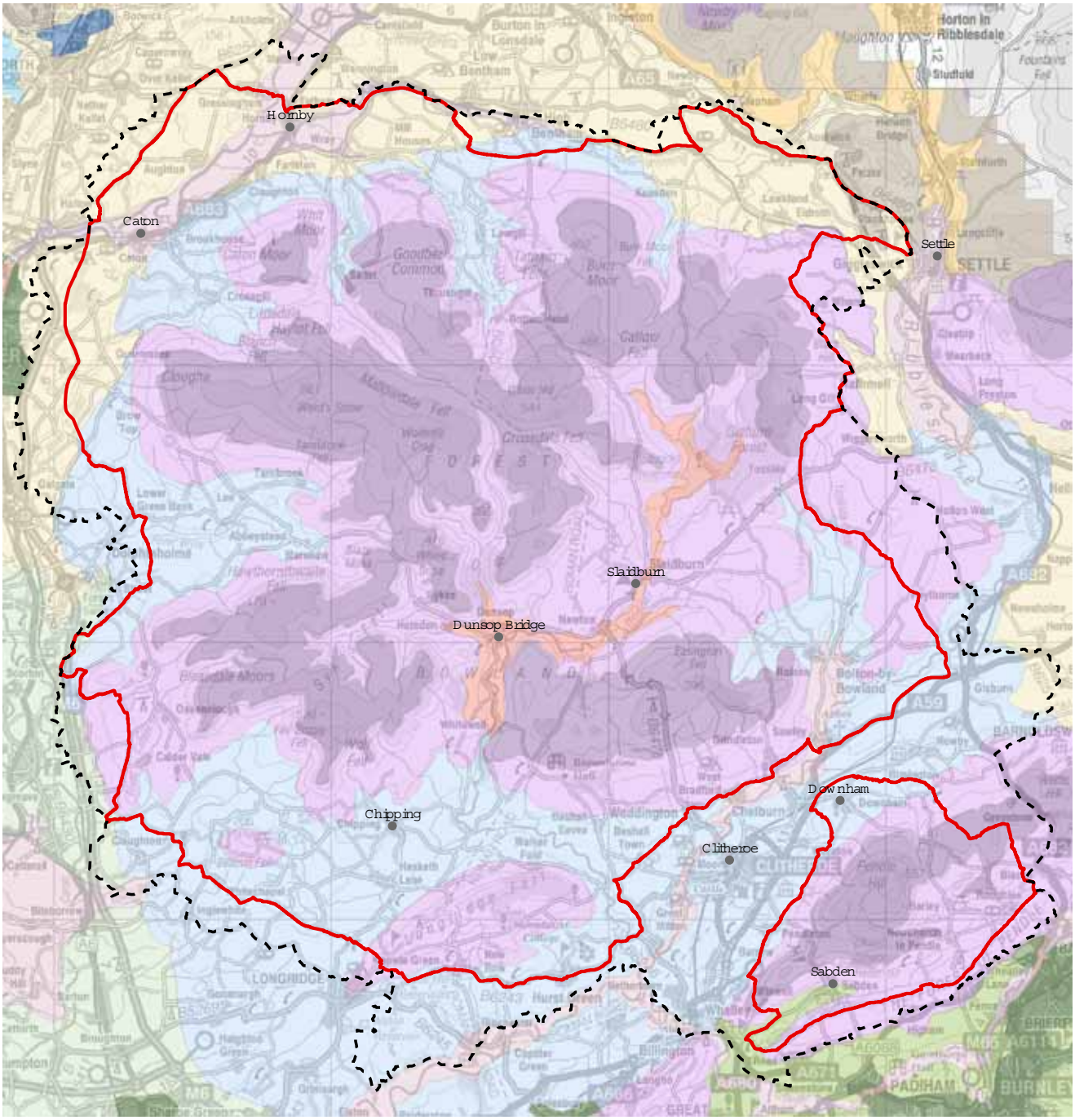
Figure 3.1
Character of England Map - National Character Areas



KEY

Regional Landscape Character Types

- Drumlin Farmlands
- Industrial Foothills and Fringes
- Limestone Dales
- Limestone Uplands
- Lowland Settled Plains
- Mosslands
- Open Moorland Plateau
- Saltmarshes
- Upland Fringes and Ridges
- Upland Valleys
- Urban
- Urban River Valleys
- Valley Farmlands
- Valley Meadowlands

- Study Area
- Forest of Bowland Area of Outstanding Natural Beauty

0 2 4 km

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Figure 3.2
North West Regional
Landscape Character Framework

Foothills and Fringes. Once finalised, these Regional Landscape Character Types will provide a framework for the definition of Landscape Character Types at the local level. As the Regional mapping was in preparation at the same time as the Forest of Bowland Landscape Character Assessment was being undertaken, consistency has been sought between both classifications.

3.4 County Landscape Context

3.4.1 Set within the framework provided by National Character Areas, the Lancashire Landscape Character Assessment[20] classifies the landscape within the Forest of Bowland AONB into 10 separate Landscape Character Types and 31 Landscape Character Areas (see **Figure 3.3**). The Lancashire Landscape Classification provides the framework for the definition of more detailed Landscape Character Types and Areas within the Forest of Bowland. It also provides information on landscape character for landscapes at the periphery of the AONB, outside the Study Area.

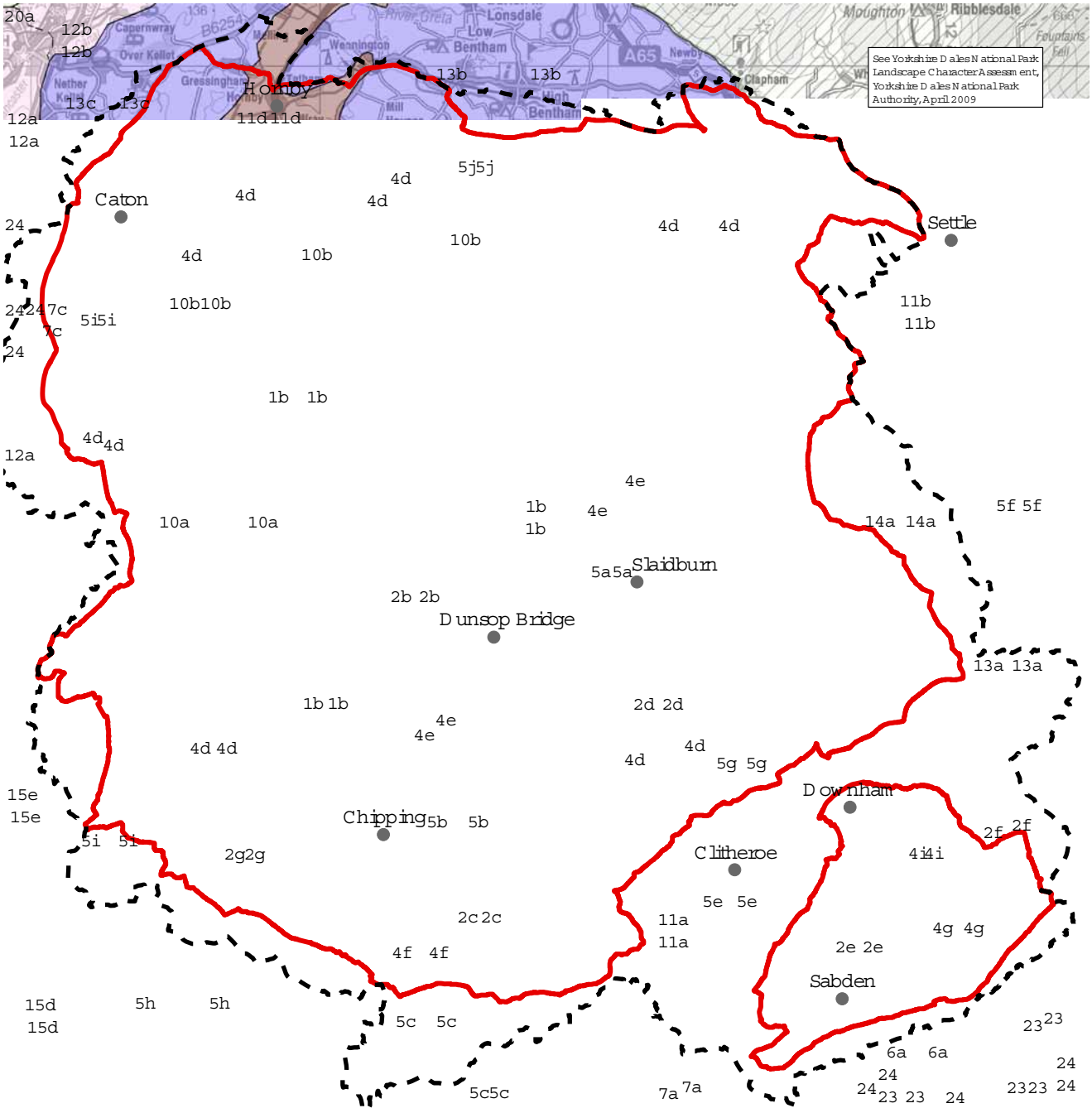
3.4.2 Descriptive information on the landscape character, physical influences and human influences of each of the 10 identified Lancashire Landscape Character Types is contained within the Lancashire Landscape Character Assessment Report.

3.5 The Forest of Bowland Landscape Classification

Defining a Landscape Character Typology for the Forest of Bowland

3.5.1 As required by the brief (see **Appendix A**), the Landscape Character Types identified within the Lancashire Landscape Character Assessment form the framework for those Local Landscape Character Types that have been identified within the Forest of Bowland, as a result of desk work analysis and verification in the field. This Study has identified 14 Landscape Character Types (at a scale of 1:25,000) which nest within the existing Lancashire County Landscape Character Types, as shown within the Table 1:

[20] A Landscape Strategy for Lancashire – Landscape Character Assessment, October 1999, Environmental Resources Management (ERM) for Lancashire County Council.



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LANDSCAPE CHARACTER ASSESSMENT

Figure 3.3
Lancashire Landscape Classification

Table 1: Correlation between Lancashire and Bowland Landscape Character Types

LANCASHIRE LANDSCAPE CHARACTER TYPES (1:50,000 Scale)	BOWLAND LANDSCAPE CHARACTER TYPES (1:25,000 Scale)
1: Moorland Plateaux	**A. Moorland Plateaux**
2: Moorland Hills	**B. Unenclosed Moorland Hills** **C. Enclosed Moorland Hills**
4: Moorland Fringe	**D. Moorland Fringe**
5: Undulating Lowland Farmland	**E. Undulating Lowland Farmland** **F. Undulating Lowland Farmland with Wooded Brooks** **G. Undulating Lowland Farmland with Parkland** **H. Undulating Lowland Farmland with Settlement and Industry**
6: Industrial Foothills and Valleys	(See 3.5.3)
7. Farmed Ridges	**N. Farmed Ridges**
10. Wooded Rural Valleys	**I. Wooded Rural Valleys**
11. Valley Floodplain	**J. Valley Floodplain**
13. Drumlin Field	**K. Drumlin Field**
14. Rolling Upland Farmland	**L. Rolling Upland Farmland** **M. Rolling Upland Farmland with Woodland and Reservoir**

3.5.2 For those Landscape Character Types defined with the Lancashire Landscape Character Assessment that have also been identified within the Forest of Bowland, consistency has been sought in terms of the description of the Landscape Character Description and Physical Character of the landscape.

3.5.3 As set out within Table 1 above, the 'Industrial Foothills and Valleys' Landscape Character Type (identified within the Lancashire Landscape Character Assessment along the south-eastern edge of the Pendle Hill outlying area of the AONB) was omitted from the Forest of Bowland Landscape Typology. After field survey verification, it was considered that the boundary of this Landscape Character Type (which predominantly occurs to the south of the AONB) does not extend into the Study Area. Views across the Industrial Foothills and Valleys Landscape Character Type are, however, a key characteristic of this area of landscape within the Study Area.

3.5.4 Where possible, Landscape Character Types within the AONB were given the same name as those Landscape Character Types defined within the Lancashire Landscape Character Assessment to ensure a consistent approach.

3.5.5 For those Landscape Character Types that continue outside the boundaries of the Study Area, reference is made to the corresponding relevant Landscape Character Type within the

Lancashire Landscape Strategy or within existing neighbouring Landscape Character Assessments[21].

3.5.6 The methodology used to define the landscape character typology for the Forest of Bowland is provided in **Appendix C**.

Landscape Character Types

3.5.7 **Figure 3.4** shows the distribution of Landscape Character Types defined within the Study Area. They have a distinct and relatively homogenous composition and pattern of physical and cultural attributes - including geology, landform, hydrology, land cover/ecological habitats and historical land use. Landscape Character Types are generic in form, and may occur in different areas of the AONB. Examples include:

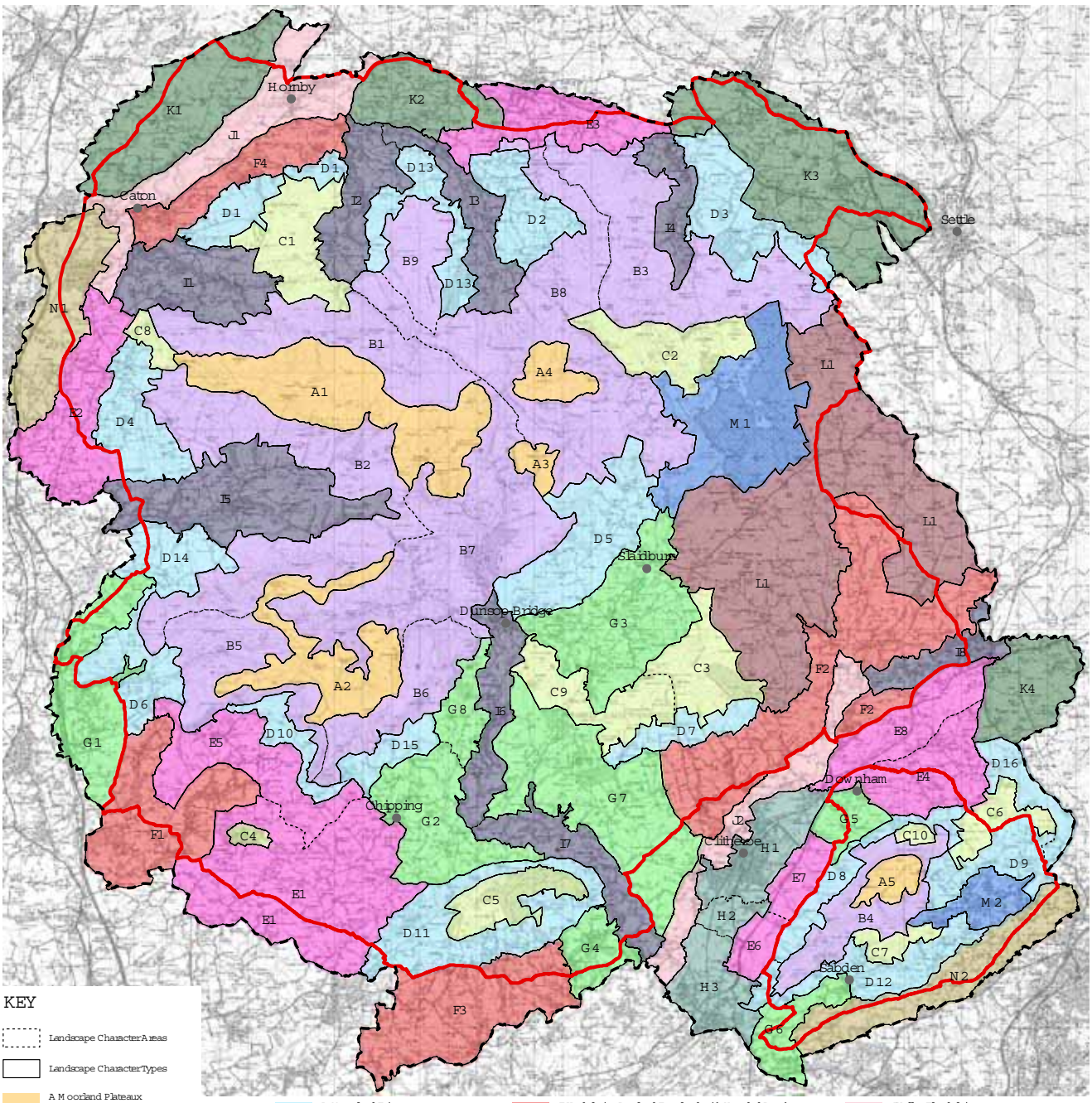
- Moorland Plateaux;
- Undulating Lowland Farmland with Parkland; and
- Drumlin Field.

3.5.8 The 14 Landscape Character Types that have been defined within the Forest of Bowland are set out within Table 2 below:

Table 2: Bowland Landscape Character Types

Bowland Landscape Character Types
A: Moorland Plateaux
B: Unenclosed Moorland Hills
C: Enclosed Moorland Hills
D: Moorland Fringe
E: Undulating Lowland Farmland
F: Undulating Lowland Farmland with Wooded Brooks
G: Undulating Lowland Farmland with Parkland
H: Undulating Lowland Farmland with Settlement and Industry
I: Wooded Rural Valleys
J: Valley Floodplain
K: Drumlin Field
L: Rolling Upland Farmland
M: Forestry and Reservoir
N: Farmed Ridges

[21] Craven District (Outside the Yorkshire Dales National Park and Forest of Bowland AONB) Landscape Appraisal, Final Draft, October 2002, Landscape Design Associates for Craven District Council;
Yorkshire Dales National Park Landscape Character Assessment, March 2001, Estell Warren Landscape Architects for the Yorkshire Dales National Park Authority.



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LANDSCAPE CHARACTER ASSESSMENT

Figure 3.4
The Forest of Bowland Landscape Classification

Landscape Character Areas

3.5.9 **Figure 3.4** also shows the distribution of the 82 Landscape Character Areas within the Forest of Bowland AONB. These nest within the Landscape Character Types identified above and have a distinct and recognisable pattern of elements and perceptual qualities such as scale, pattern, and cultural associations which are geographically unique.

3.5.10 The following Landscape Character Areas have been identified within the Forest of Bowland:

A: MOORLAND PLATEAUX
A1: Ward's Stone
A2: Brown Berry Plain and Holdron Moss
A3: Baxton Fell
A4: White Hill
A5: Pendle Hill

B: UNENCLOSED MOORLAND HILLS
B1: Mallowdale
B2: Abbeystead
B3: Burn Moor Fell
B4: Pendle Hill
B5: Bleasdale
B6: Wolf Fell to Mellor Knoll
B7: Langden
B8: Croasdale to Lythe
B9: Goodber Common

C: ENCLOSED MOORLAND HILLS
C1: Caton Moor
C2: Crutchenber
C3: Easington
C4: Beacon Fell
C5: Longridge Fell
C6: Twiston
C7: Lingbobs and Stainscombe
C8: Birk Bank
C9: Newton and Birkett
C10: Downham

D: MOORLAND FRINGE
D1: Caton Moor
D2: Tatham
D3: Kettlebeck
D4: Hare Appletree
D5: Beatrix to Collyholme
D6: Nicky Nook
D7: Moorcock
D8: Pendleton
D9: Wheathead
D10: Bleasdale
D11: Longridge
D12: Upper Sabden Valley
D13: Park House
D14: Abbeystead

D15: Wolf-Burnslack
D16: Middop

E: UNDULATING LOWLAND FARMLAND
E1: Whitechapel
E2: Quernmore
E3: Forest of Mewith
E4: Rimington
E5: Bleasdale
E6: Pendleton
E7: Worston
E8: Dudland and Gisburn

F: UNDULATING LOWLAND FARMLAND WITH WOODED BROOKS)
F1: Calder Vale and Brock Valley
F2: Bolton by Bowland to Waddington
F3: New Row
F4: Caton

G: UNDULATING LOWLAND FARMLAND WITH PARKLAND
G1: Wyresdale
G2: Little Bowland
G3: Upper Hodder
G4: Hurst Green
G5: Downham
G6: Sabden
G7: Browsholme
G8: Dinkling Green – New Laund

H: UNDULATING LOWLAND FARMLAND WITH SETTLEMENT AND INDUSTRY
H1: Clitheroe and Chatburn
H2: Higher and Lower Standen
H3: Barrow and Whalley

I: WOODED RURAL VALLEYS
I1: Littledale
I2: Roeburndale
I3: Hindburndale
I4: Keasden
I5: Over Wyresdale
I6: Upper Hodder
I7: Lower Hodder
I8: Ribble

J: VALLEY FLOODPLAIN
J1: Lune
J2: Ribble

K: DRUMLIN FIELD
K1: Gressingham
K2: Lower Tatham
K3: Lawkland
K4: Coronation

L: ROLLING UPLAND FARMLAND
L1: Harrop Fold

M: FORESTRY AND RESERVOIR
M1: Gisburn
M2: Barley

N: FARMED RIDGES
N1: Quernmore
N2: The Heights

3.5.11 As acknowledged by the latest guidance,[22] landscape is a continuum and character does not in general change abruptly on the ground. More commonly, the character of the landscape will change gradually rather than suddenly, and therefore the boundaries between landscape character units should be considered to reflect zones of transition in many cases. In addition, the boundaries have been defined and mapped at a scale of 1:25,000, and the assessment is therefore only suitable for use at this scale. This should be taken into consideration when the assessment is being used to inform decision-making in relation to development and land management proposals at the local level.

[22] Countryside Agency/Scottish Natural Heritage (2002) Landscape Character Assessment – Guidance for England and Scotland

4.0 LANDSCAPE CHARACTER DESCRIPTIONS

4.1 Introduction

4.1.1 This section sets out descriptions and guidelines for the Landscape Character Types identified within the Forest of Bowland.

Landscape Character Type Descriptions and Guidelines

4.1.2 For each defined Landscape Character Type, its boundaries are mapped (see **Figure 3.4**) and its character described (and illustrated where appropriate) under the following headings:

CHARACTER ASSESSMENT

Location:

4.1.3 A short paragraph detailing location of the Landscape Character Type in relation to the AONB and adjacent Landscape Character Types.

Landscape Character Description

4.1.4 A summary of the overall landscape character of the Landscape Character Type

Key Environmental Features

Physical

4.1.5 A summary description of geology/soils, landform, hydrology and land cover elements that contribute to character.

Ecological

4.1.6 A summary description of ecological habitats and their relative nature conservation importance that contribute to character, by reference to designated site citations and the distribution of designated sites.

Cultural and Historical

4.1.7 A summary description of the main cultural associations and historical features that contribute to character, by reference to historic landscape characterisation data and distribution of designated assets.

Development, Settlement and Buildings

4.1.8 A bullet point list of the main settlement forms/origins and patterns, building styles and vernacular materials that contribute to character, by reference to fieldwork, research and existing assessments.

Landscape Character Areas[23]:

4.1.9 A bullet point list of the key characteristics that contribute to the unique local sense of place and distinctiveness of the local Landscape Character Area.

LANDSCAPE CHANGES AND OPPORTUNITIES

Forces for Change:

Past Landscape Changes

A bullet point list of historic and more recent changes that affected this Landscape Character Type.

Current Landscape Condition

A concise description of how the intactness of the different components create a perception of the overall current condition of the landscape.

Future Landscape Changes and Opportunities

A bullet point list of the positive and negative future changes and opportunities that are considered likely to affect the condition of the landscape over the short term (5 years) and long term (20 years +) including:

- Agricultural Change and Land Management
- Climate Change
- Development

Sensitivities and Capacity for Change:

A short paragraph summarising the key positive attributes that are judged to be inherently sensitive and providing a judgement on the capacity of the overall Landscape Character Type to accommodate change.

[23] Bowland Landscape Character Areas reflect geographically specific areas of locally distinctive character that exhibit a unique sense of place within the overall Landscape Character Type.

GUIDELINES FOR MANAGING LANDSCAPE CHANGE

A concise statement setting out the overall management strategy for the Landscape Character Type, supported by a bullet point list of specific guidelines for managing landscape change for the overall Type, covering the following specific categories:

- Physical Character
- Ecological Character
- Cultural and Historic Character
- Aesthetic and Perceptual Character

4.2 The Forest of Bowland Landscape in Overview

4.2.1 The Forest of Bowland is still a well kept secret in the north west of England. Its natural beauty is recognised in its designation, and by its many residents and visitors who enjoy its peace and quiet and the wide variety of landscapes. The AONB forms part of the extensive Pennine chain, which extends eastwards into the Yorkshire Dales National Park and southwards across Lancashire. The area's history is entwined with the traditions of farming and sporting estates, and this has created the mosaic of landscapes we see today.

4.2.2 The Forest of Bowland has a unique and varied landscape, with the many diverse areas creating a strong sense of place. The upland areas are known for their grandeur and isolation, traversed by quiet lanes and shooting tracks. Open expanses of moorland create wide panoramic views within the area and out to all directions. These areas have a strong sense of tranquillity, wildness and remoteness.

4.2.3 The moorland hills are defined by their steep scarps and sharply incised cloughs and hidden wooded valleys, which contrast with the lower lying wide river floodplains and meadows. The largely intact network of drystone walls and enclosed pastures with scattered out-barns and small hamlets characterise the cultural landscape of upland farming. Lower down, the moorland fringe landscape often contains relics of its past in the form of vaccaries and deer parks; and patterns of enclosures. The scattered woodlands, hedgerows, meadows and parklands which make up the undulating lowland farmland define the more lush valleys of the many rivers which drain the fells before they join the Ribble and Lune. The contrasting gritstone and limestone geology is visible in the drystone walls and vernacular buildings, and the pattern of stone villages which nestle in the landscape. There is a striking contrast between the upland and lowland landscapes – adding to the natural beauty and sense of tradition of the landscape.

View of the Hodder Valley from Dunsop Fell

View of the Ribble Valley from the Nick of Pendle

View looking south-east across Great Ann Moss

LANDSCAPE CHARACTER TYPE A: MOORLAND PLATEAUX

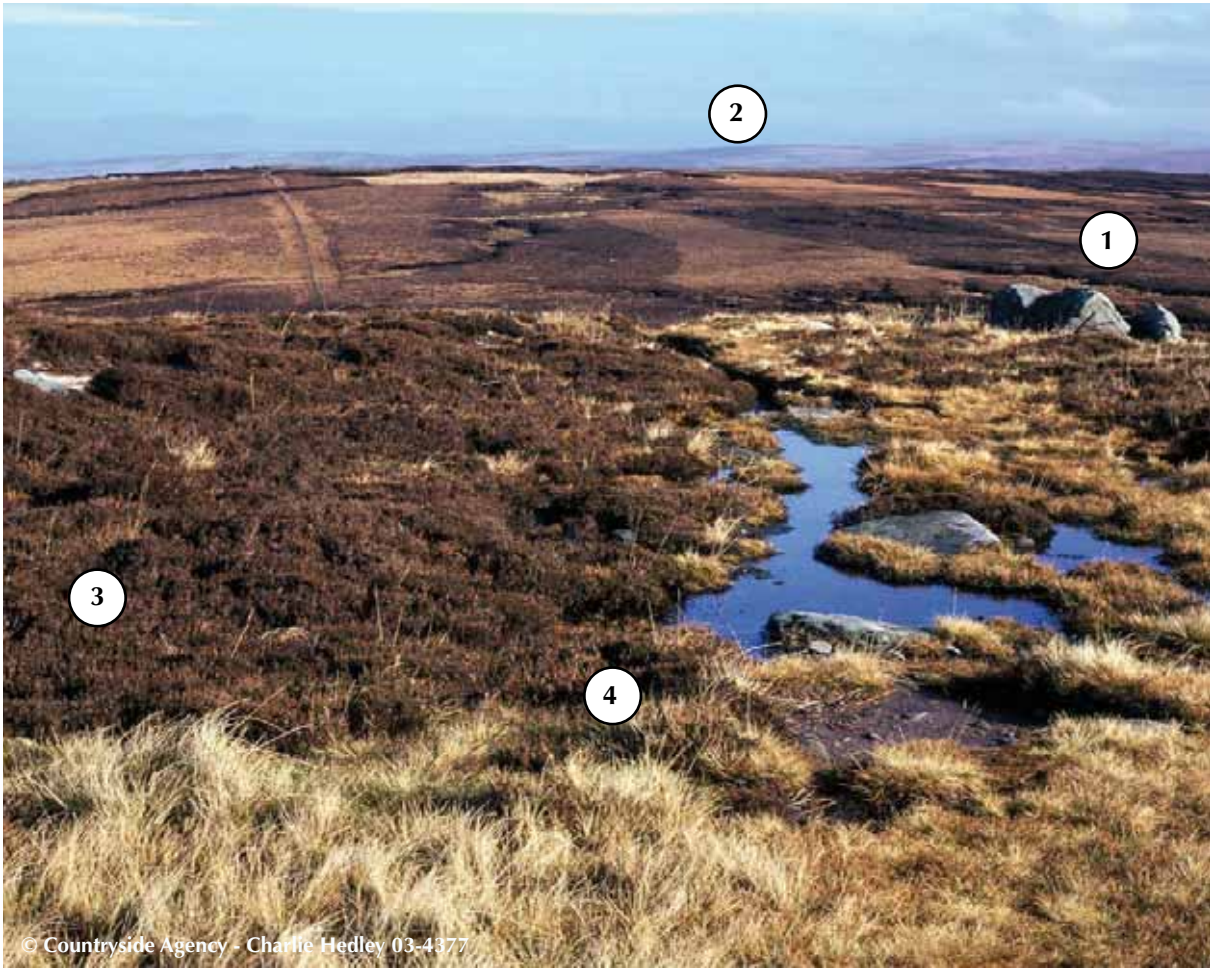
Key Characteristics

1. Some moorland summits are strewn with gritstone boulders.

2. Strong sense of elevation with vast, expansive skies and uninterrupted views.

3. Colours tend to be muted throughout the year.

4. Landcover is predominantly blanket bog or heather moorland and trees are generally absent.



A: MOORLAND PLATEAUX

CHARACTER ASSESSMENT

Location

4.2.4 There are five occurrences of the Moorland Plateaux Landscape Character Type (LCT) within the Study Area. Four of these are situated towards the centre of the area, forming part of the central upland core. Further to the south, this LCT also occurs on the Pendle Hill outlier, to the south of Downham. This LCT is generally surrounded on all sides by the Unenclosed Moorland Hills Landscape Character Type (B).

Landscape Character Description

4.2.5 The high Moorland Plateaux lie on the very tops of the Bowland Fells at elevations of 400-560m: a series of wide, flat topped or gently rolling ridges dominating the skyline and views from the rest of the AONB. Here, the sense of tranquillity and remoteness is strongest, with vast skies, extensive panoramic views and strong sense of wildness and isolation. There is little sign of human activity apart from the odd trig point or shooting butt and night skies are almost completely dark. This is a predominantly heather clad landscape, with areas of blanket bog and bare peat. The tussocky nature of blanket bog vegetation and the mats of dense heather contribute texture and pattern to the landscape. The only sounds to be heard are birdsong, including the mournful cries of golden plover, the bubbling calls of curlew, the 'go back' calls of red grouse and the bleating of sheep. The fleeting glimpse of a hen harrier quartering the ground above a heather clad moor; the circling of a peregrine high above the moors on flickering wings and the flashing glimpse of a merlin swooping low across the moor, close to the ground are all distinctive qualities of this landscape.

4.2.6 The Moorland Plateaux are underlain by gritstone, and the occasional boulder is visible where peat has been eroded away by the actions of sheep, wind and rain. This hard geology creates ridges and terraces, and these have been steeply incised by upland streams, creating cloughs: sharp, deep lines and folds in an otherwise smooth landscape. Colours tend to be muted throughout the year, although small patches of cotton grass are eyecatching in springtime, and in late summer the heather turns an intense purple hue for a brief few weeks.

Key Environmental Features

Physical

4.2.7 The underlying Gritstone geology has created terraces or plateaux and escarpments, which form the highest tracts of land within the Study Area and are dissected by a network of streams. Harder layers of gritstone outcrop form distinctive features of the rugged moorland scenery. Due to the high elevation of the Gritstone Moorland Plateaux, soils are thin and podsols and gleyed clays are common. Large areas of peat, which initially formed during prehistoric times; and blanket bog now dominate landcover of this Landscape Character Type. Peat would form in the present landscape given favourable management, however, repeated burning and grazing removes much of the organic matter capable of forming peat. Trees are generally absent. Gritstone crags are also a feature of the landscape; they outcrop along the hill sides where the softer shales have been eroded.

4.2.8 The high, Moorland Plateaux are the most remote and exposed Landscape Character Type within the AONB. They are generally characterised by a level or gently rolling landform although they may include steep high level escarpments, and are found at elevations between 400 and 720 metres. Rock outcrops occur in some areas and some moorland summits are strewn with gritstone boulders (which may be the result of erosion of peat). Soils are poor and a vegetation cover of acid grassland, dwarf-shrub heath, heather and bilberry (associated with the mineral soil) and sundew, purple moor grass and/or cottongrass (associated with bog or peat). In places, the patchwork mosaic of small heather burns or sinuous cuts of vegetation form firebreaks. Localised erosion of the soils has exposed the underlying rocks and gravels giving rise to crags and peat hags, particularly along the edges of the blanket bog.

4.2.9 Looking towards this Landscape Character Type from adjacent, lower landscapes, the Moorland Plateaux occur as a series of wide plateaux, flat-topped ridges, which are scattered with gritstone boulders and coincide with deposits of peat which support extensive areas of blanket bog managed as rough sheep pasture and Grouse Moor.

Ecological

4.2.10 Extensive areas of blanket bog and heath provide considerable ecological interest within this Landscape Character Type. Areas of acid grassland also occur on parts of Blindhurst Fell and Pendle Hill. Blanket bog is a UK Biodiversity Action Plan Habitat (recognised under the EC Habitats Directive). Where this LCT occurs within the central upland core (Bowland Fells), the blanket bog and heath provide important habitats for breeding bird populations (including hen harrier, merlin, peregrine, golden plover and red grouse). This is recognised by their designation as a Special Protection Area (SPA) and Site of Special Scientific Interest (SSSI). Other birds such as skylark, red grouse, gulls, curlew and the golden plover are also common.

The most extensive plant communities are dry, heather-dominated heathland, and heather and cottongrass dominated blanket bog, which covers the tops of ridges and shallow slopes. These species form a mosaic of upland habitats. Other plants of interest include bog rosemary and cloudberry.

Cultural and Historical

4.2.11 Evidence of settlement on the plateaux is rare[24], although mesolithic hunter-gatherers who migrated seasonally with the herds utilised the landscape. The discovery of flint and chert implements over most of these plateaux has been taken to indicate the presence of their summer hunting camps. Neolithic forest clearance and agricultural intensification in the Bronze Age on the fragile upland soils, coupled with climatic deterioration to cooler wetter conditions, is thought to have encouraged peat formation across much of these areas. There was abandonment of unproductive land and much has remained uninhabited. Extensive areas are dominated by rough grazing. The peat (which developed from 5,000 BC) is a valuable resource as it contains a wealth of environmental and archaeological data. Despite a general sense of the landscape being devoid of human impacts, there are occasional boundary fences. There is little evidence of recent settlement and economic activity, other than evidence of modern use of the landscape for shooting.

Development, Settlement and Buildings

- Distinctive lack of built structures in this elevated, exposed landscape;
- General absence of stone walls or boundary fences;
- Lines of grouse butts (stone butts with turf tops) are a feature in places;
- Cairns and other stone towers also provide recognisable landscape features;
- Shooting tracks, sheep tracks, footpaths and sheep folds are also landscape features.

Landscape Character Areas

4.2.12 Landscape Character Areas within this Landscape Character Type include:

[24] Source: A Landscape Strategy for Lancashire: Landscape Character Assessment, 2000, ERM for Lancashire County Council.

Landscape Character Area A1: Ward's Stone

- Strong sense of isolation and tranquillity within this predominantly open landscape;
- Dramatic, panoramic, long-distance open views northwards towards the purple-blue backdrop of fells within the Lake District and eastwards towards the three dramatic peaks of the Yorkshire Dales (Ingleborough, Pen Y Ghent and Whernside);
- The wind turbines on Caton Moor are a visible vertical landscape feature within middle distance views northwards;
- A generally smooth landscape, cloaked in heath and blanket bog, which is punctuated by frequent rocky outcrops of gritstone and gritstone boulders; and dotted with stone cairns;
- Several surfaced shooting tracks are also contribute to the texture of the landscape;
- 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 plateaux are snow covered;
- Strong sense of openness, with dramatic, dominant ever-changing skies and far reaching skylines and horizons;
- The Millennium gritstone sculptures, built amongst quarry spoil heaps are also landscape features which contribute to recognisable sense of place;
- Significant gritstone piles, associated shelters and tracks are landscape features;
- The landscape is strongly affected by changing light and weather patterns, which can instantly change the atmosphere from dark and dramatic when cloudy, to light and dynamic, when the sun casts shadows on the moorland;

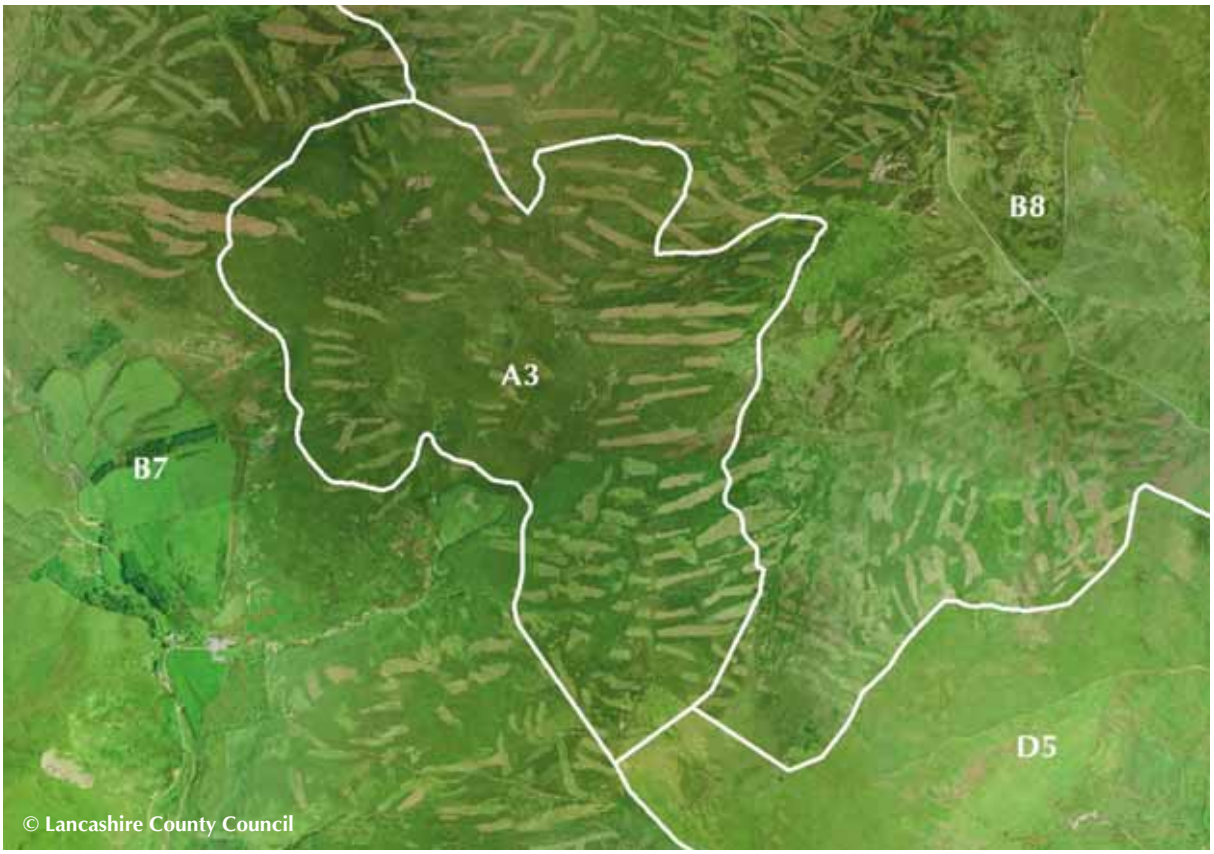
- Stone cairns on Clougha Pike are visible landmarks on the skyline;
- The 'go back' calls of red grouse all year round and/or the raucous calls of lesser black backed gull on some Fells (notably Tarnbrook Fell and White Moss) during the spring and summer months are a distinctive feature, as is the large gullery on Tarnbrook Fell;
- Mournful cries of golden plover and the bubbling calls of curlew on some fells are distinctive on some fells during the spring/summer months;
- The fleeting glimpse of a hen harrier quartering the ground above a heather clad moor; the circling of a peregrine high above the moor on flickering wings, followed by it stopping at break neck speed onto some unsuspecting prey; and the flashing glimpse of a merlin swooping low across the moor, close to the ground are all distinctive qualities of this landscape;
- This area Forms the backdrop to the view of the Forest of Bowland AONB from the M6 corridor to the west;
- Gritstone cliffs/crags of Thorn Crag, Clougha and Windy ridge are recognisable landscape features;
- Bare areas of peat and mineral soil on Tarnbrook Fell, Brennand Fell and the top of Ward's Stone and wind blasted, short vegetation (including lichen heath) on the very highest part of the Fell contribute to landscape pattern;
- Boundaries are marked in places by drystone walls and fence-lines.
- Traditional shooting butts are also landscape features.

Landscape Character Area A2: Brown Berry Plain and Holdron Moss

- Dramatic, long distance, open views across the adjacent Unenclosed Moorland Hills (B) and Moorland Fringe, Undulating Lowland Farmland with Wooded Brooks (F) and parkland (G) Landscape Character Types;
- A windswept, bleak landscape, which is strongly affected by changing weather and light patterns;
- Large areas of blanket bog and heath cloak the rounded fells and stretch far into the distance within views across the area;
- Large areas of extremely wet active Blanket bog are features of the landscape on top of Marhsaw Fell and Holden Moss, whilst bog pools on top of Holdron Moss, Brown Berry Plain and Holme House Fell contribute to landscape pattern;
- The large area of peat hagg/bare peat, lawn of acidic grassland and degraded heath on top of Hawthornthwaite Fell/Langden Head provide texture to the landscape;
- 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 plateaux are snow covered;
- The landscape is strongly affected by changing light and weather patterns, which can instantly change the character from dark and dramatic when cloudy to light and dynamic, when the sun casts shadows on the moorland;
- The 'go back' calls of red grouse all year round and the raucous calls of lesser black backed gull, especially on White Moss during the spring and summer months, contribute to recognisable sense of place; as do the mournful cries of golden plover on some fells and the bubbling calls of curlew;

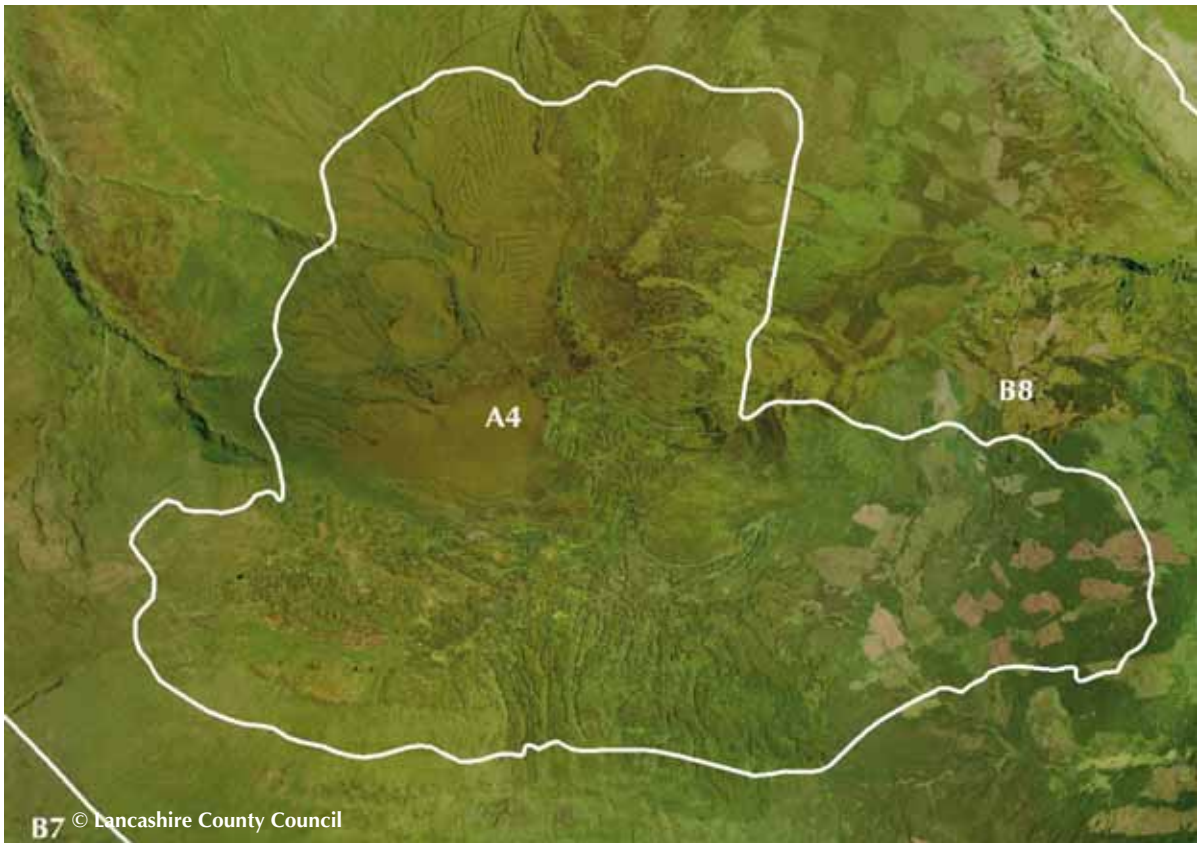
- The fleeting glimpse of a hen harrier quartering the ground above a heather clad moor; the circling of a peregrine high above the moor on flickering wings, followed by it stopping at break neck speed onto some unsuspecting prey; and the flashing glimpse of a merlin swooping low across the moor, close to the ground are all distinctive qualities of this landscape;
- The mosaic of grassland and heather contributes to a distinctive landscape pattern;
- The large gullery of lesser black backed gulls on White Moss is a feature of the area;
- Holdron Moss (a large area of Blanket Bog) is a key landscape feature, the colour of which varies seasonally with the bloom of white cotton grass in June;
- A large number of water courses originate in this area, contributing to the landscape pattern;
- A large area of eroded, exposed peat is visible within the landscape at Langden Head, Hawthornthwaite Fell.

Landscape Character Area A3: Baxton Fell



- Dramatic, panoramic open views across adjacent Croasdale and Lythe Fells, with Ward's Stone Gristone Moorland Plateaux Landscape Character Area (A1) forming the skyline within views westwards;
- 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 plateaux are snow covered;
- Patches of wet landcover in places and large sweeping areas of heather clad blanket bog on the rounded Fells contribute to landscape pattern;
- Bog pools on the top of Botton Head Fell (White Hill) are recognisable landscape features;
- Strong sense of remoteness, exposure and tranquillity;
- The 'go back' calls of red grouse all year round, the mournful cries of golden plover on some fells and the bubbling calls of curlew all contribute to recognisable sense of place;
- The fleeting glimpse of a hen harrier quartering the ground above a heather clad moor; the circling of a peregrine high above the moor on flickering wings, followed by its stooping at break neck speed onto some unsuspecting prey and the flashing glimpse of merlin swooping low across the moor, close to the ground are also distinctive features.

Landscape Character Area A4: White Hill



- Three stone towers on White Hill provide recognisable landmarks;
- Strong sense of isolation, tranquillity and wildness within this landscape;
- Gritstone boulders and rocky outcrops are landscape features;
- Dramatic views into the Croasdale and Whitendale river valleys within the adjacent Moorland Hills (B) Landscape Character Type;
- 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 plateaux are snow covered;
- The distinctive calls of birds including the Golden Plover, Gulls, Red Grouse and Curlew all contribute to recognisable sense of place.

Landscape Character Area A5: Pendle Hill

- Long distance panoramic, 360 degree views, including dramatic views southwards across Lancashire, north-eastwards across the Yorkshire Dales and eastwards to the Central and South Pennines;
- Dramatic views north-westwards across the Ribble Valley towards the Moorland Plateaux and Hills Landscape Character Types within the core of the Forest of Bowland, which form a dramatic skyline backdrop;
- This Landscape Character Area also forms a dramatic skyline backdrop to several views towards Pendle Hill from adjacent Landscape Character Types and Areas within the Forest of Bowland to the north and Lancashire to the south;
- 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 plateaux are snow covered;
- Strong sense of openness, remoteness and tranquillity;
- The sweeping, heather clad moorland and blanket bog is windswept and exposed;
- Scout Cairn and a landmark circular shelter of stones (commemorating a former Clitheroe Doctor and Scout District Commissioner) and contribute to recognisable sense of place and orientation;
- 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 contributes to recognisable landscape pattern;
- The deep valley of Ogden Clough is key landscape feature which incises the Moorland Plateau.

CURRENT AND FUTURE LANDSCAPE CHANGES AND OPPORTUNITIES

Forces for Change

Past Landscape Changes

4.2.13 Observable changes in the past include:

- Glacial activity and continual weathering, which has shaped geology and created a distinct upland landscape;
- Increase in acid grassland in some places due to high grazing pressures;
- Drainage of blanket bogs in some areas; and
- Blocking of Moorland Grips.

Current Landscape Condition

4.2.14 The overall condition of the Moorland Plateaux Landscape Character Type is considered to be moderate. In places, the condition of the blanket bog and heather moorland (dwarf shrub heath) is poor as a result of historic overgrazing, which has damaged the composition and structure of these habitats (causing a loss of heather to bilberry and cottongrass bog). Sphagnum moss is generally sparse due to a combination of the effects of past burning practices and the creation of drainage grips. This is, however, improving with lower stocking rates and grazing levels. The tick-bourne virus 'louping ill' has also resulted in economic losses to sheep (reduced grazing) and red grouse (leading to a reduction in the viability of grouse shooting in places). The condition of heath is, however, improving with lower stocking rates and grazing levels, as well as areas of blanket bog, especially where grip blocking has also taken place to re-wet the fells. In some areas of poor condition, improvements can be seen where the moorland is managed under Environmental Stewardship. There is also evidence of erosion of the blanket bog, resulting in the formation of peat hags at the edges of the Plateaux. Some of this is due to severe winter weather and subsequent wind erosion which further accelerates erosion once the surface habitat has been degraded.

Future Landscape Changes and Opportunities

4.2.15 In the short term (5 years) it is likely that there will be continued positive future changes in the form of improved stock management on the moorland, further blocking of grips and more sensitive heather burning management on moorlands (i.e. blanket bog and dwarf shrub heath), in some places, for grouse shooting. Further positive changes are likely to include agreed improved heather and grass burning practices.

4.2.16 Longer-term changes (20+ years) will be dependent on prevailing incentives and policies and it is therefore challenging to be prescriptive. The AONB Management Plan will provide a key tool for managing landscape change and ensuring a positive future for the area. Potential longer-term changes and key opportunities within the Moorland Plateaux are outlined below:

- *Agricultural Change and Land Management* – Following programmes of grip blocking, blanket bogs should be restored, whilst areas of heath should be restored following further stock reductions. The sustainable management of heath will help to contain excessive erosion and retain a key habitat. There may also be pressure for an increase in the number of shooting tracks and related structures, which could be visually intrusive if not designed sensitively. There is significant potential for positive management of this landscape through Environmental Stewardship Schemes (such as stock management, grip blocking and burning agreements). There is also pressure for the abandonment of hill farming due to changes in the structure of agriculture.

- *Climate Change* - Fluctuating temperatures, precipitation and general weather patterns will continue to affect this dynamic landscape, leading to potential increases in the incidences of moorland fire and excessive erosion, the possible spread of invasive species and changes in the species composition of habitats. It is also possible that climate change will lead to increased flash flooding and gully erosion in upland cloughs and sykes.

- *Development* - Large-scale renewable energy development would break up the uncluttered skylines and key views and erode the open and undeveloped character of the area. There is also increasing pressure from mountain bikes and motorbikes, which could lead to problems of erosion through overuse of certain routes, involving soil compaction, attrition and erosion of vegetation and the underlying fragile peat body and mineral soils. Increased pressure for vehicular access along the Salter Fell road and estate tracks might also arise, but existing policies, measures and law regarding off road use should prohibit this.

Sensitivities and Capacity for Change

4.2.17 The Moorland Plateaux Landscape Character Type is considered to have very high visual sensitivity as a result of the very open character, the simplicity of the uncluttered skylines and associated panoramic views. Areas that appear to be hidden within one viewpoint are likely to be highly visible and exposed from another. There is strong intervisibility with the Unenclosed Moorland Hills (B) and Enclosed Moorland Hills (C) Landscape Character Types and also with surrounding lower Landscape Character Types. This Landscape Character Type also forms a striking backdrop to views from adjacent landscapes. In addition, the Moorland Plateaux encompass an extensive mosaic of rare and fragile habitats, recognised by the fact that much of this landscape is designated as SAC or SSSI. There is also rich archaeological potential. Sense

of remoteness, tranquillity and wildness is generally very strong throughout this Landscape Character Type. Landscape Character Type is also considered to have high landscape character sensitivity. As a result, overall capacity to accommodate change, without compromising the key characteristics of this Landscape Character Type is considered to be very limited, apart from change which reinforces positive attributes, such as habitat enhancements.

GUIDELINES FOR MANAGING LANDSCAPE CHANGE

4.2.18 The overall strategy for this character type is to conserve and enrich the mosaic of habitats (including blanket bog, heath and acid grassland) which support rare birds and scarce plant species. The uncluttered skylines and general absence of tall built structures should be maintained; as should the feeling of remoteness and tranquillity. The impact of human activity should be minimised

4.2.19 Specific guidelines include:

Physical Character

- **Restore** areas of degraded blanket bog and peat;
- **Block** moorland drainage grips to reverse the impacts of past drainage and re-establish active blanket bogs;
- **Avoid** large-scale tree planting within this landscape where trees are generally absent;
- **Avoid** drainage of moorland blanket bog;
- **Encourage** avoidance of fencing in open, highly visible locations, except where its short-term benefits outweigh related landscape or wildlife loss;
- Where required, **encourage** good practice grass/heather burning agreements, based on the Heather and Grass Burning Code[25];
- **Remove** redundant fencelines where possible;
- **Maintain** and where appropriate **enhance** crags and gritstone rock outcrops as landscape features;
- **Promote** the use of gritstone and turf for surfacing, shelters and shooting butts in preference to other materials.

Ecological Character

- **Maintain** the mosaic of ecological habitats, including scrub;
- **Encourage** the re-wetting of blanket bog and the sustainable management of heath to restore and repair areas of erosion and retain key habitats;

[25] The Heather and Grass Burning Code, Natural England, 2007; http://www.moorlandassociation.org

- **Encourage** grazing management that promotes more favourable condition of upland semi-natural vegetation;
- **Encourage** habitat linkage to increase robustness to climate change;
- **Promote** the restoration of dwarf shrub communities and bog-mosses (*Sphagna)*;
- **Maintain** upland spring and flush habitats through appropriate management and **ensure** that they are not adversely affected by tree planting projects;
- **Conserve** remnant ancient semi-natural woodlands;
- **Maintain** a balance between bracken and acid grassland – avoid the excessive use of herbicides to control bracken where it leads to the degradation of vegetation;
- **Increase** upland oak woodland cloughs, where appropriate and seek opportunities for the creation of woodland connections with long distance ecological networks along cloughs to downstream river valleys[26].

Cultural and Historic Character

- **Ensure** that visitor facilities such as car parks, signs and interpretation boards are not located on the Moorland Plateaux and discourage vehicular access;
- **Conserve** the archaeological and historic environment in order to maintain a rich cultural landscape;
- **Ensure** effective planning for controlling moorland fires;
- **Avoid** the introduction of visitor facilities such as car parks, signs and interpretation boards;
- **Discourage** vehicular access;
- **Conserve** footpaths, bridleways or byways along with their associated features such as traditional stiles and gates, which represent historic routeways;
- **Promote** whole fell grazing management where possible, erecting new fences on open fell, only where alternatives are not practicable;
- **Conserve** distinctive historic landscape features and archaeological sites, including prehistoric cairns and earthwork sites, moorland trackways, industrial and quarry remains;
- Where required, **encourage** responsible burning of heather moorland[27] or management through cutting;
- **Manage** grazing levels to preserve the quality of existing woodland and allow small-scale natural regeneration in valley heads and Cloughs[28].

Aesthetic and Perceptual Character

- **Protect** skylines and key views to and from the area from tall, vertical and large-scale developments that may erode the open and undeveloped character of the area;
- **Maintain** the sense of openness;

[26] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission and TEP.
[27] The Heather and Grass burning Code, Natural England, 2007; http://www.moorlandassociation.org
[28] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission and TEP.

- **Maintain** the strong sense of tranquillity and remoteness through careful planning of visitor access.

LANDSCAPE CHARACTER TYPE B: UNENCLOSED MOORLAND HILLS

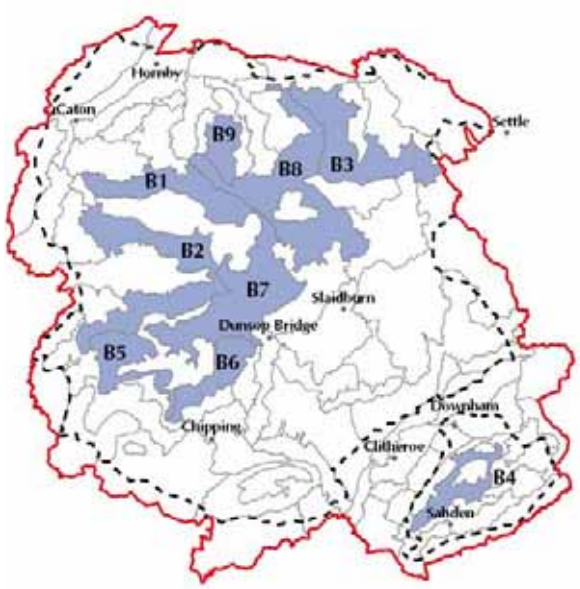
Key Characteristics

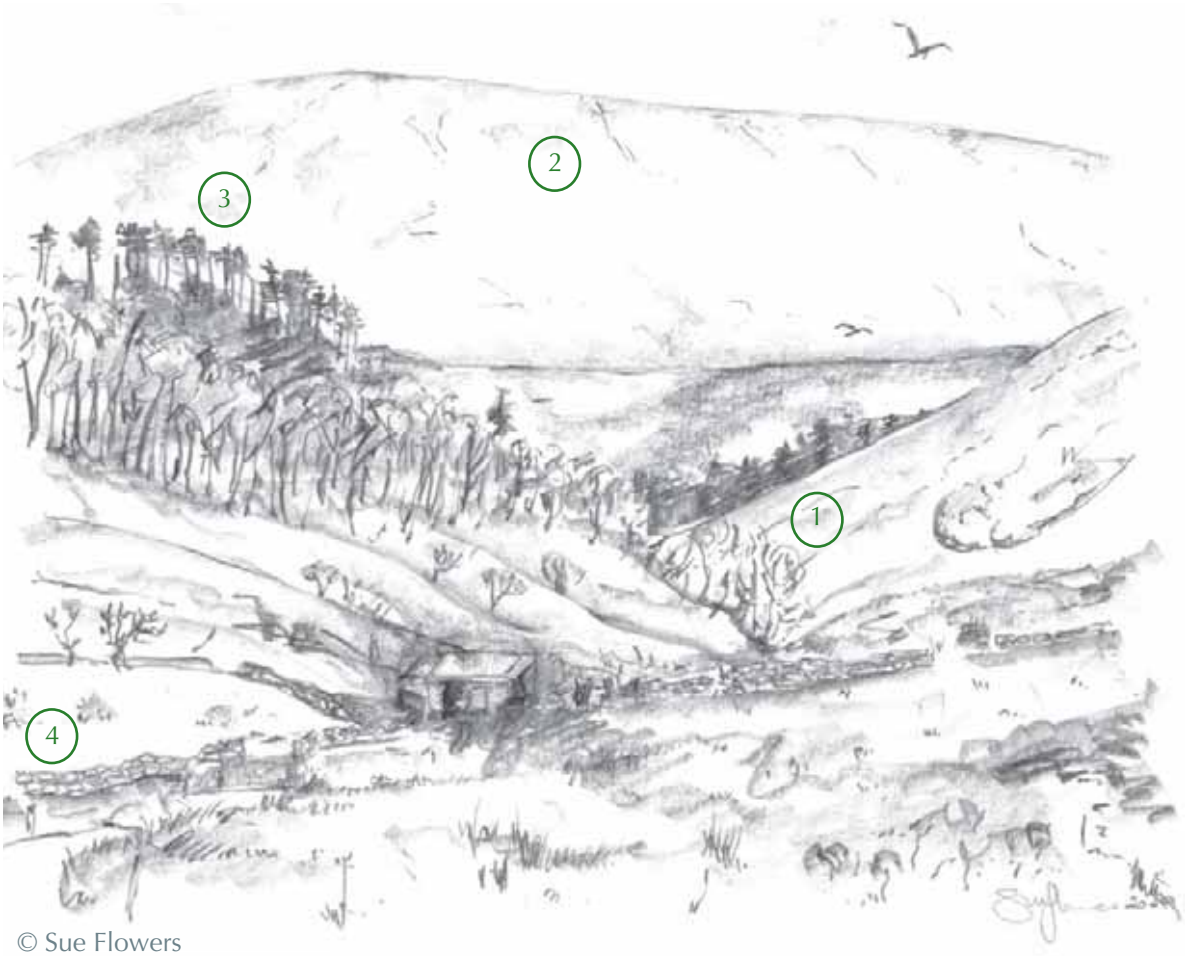
1. Dramatic cloughs or valleys are incised into the hillsides and often contain fast-flowing streams.

2. Open and exposed character, with a strong sense of remoteness and tranquillity.

3. Woodland on the clough/valley sides.

4. Stone walls and fences are occasional features, but do not dominate landscape pattern.





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4.3 B: UNENCLOSED MOORLAND HILLS

CHARACTER ASSESSMENT

Location

4.3.1 The Unenclosed Moorland Hills Landscape Character Type is predominantly situated within the north-west and north-east of the Study Area, adjacent to the higher Moorland Plateaux Landscape Character Type (A). This type also occurs on the Pendle Hill outlier to the south. The outer or lower edges of the Unenclosed Moorland Hills are generally adjacent to Moorland Fringe (D) or Wooded Rural Valleys (I) Landscape Character Types.

Landscape Character Description

4.3.2 The rolling Moorland Hills cloak the edges of the Moorland Plateaux, and generally occur at lower elevations. The hills have distinctive rounded profiles, and they are characterised by a lack of dry stone walls – giving them a sense of remoteness and tranquillity, with little evidence of human activity. The songs of meadow pipits, skylarks and red grouse are common within these landscapes.

4.3.3 The hills are of gritstone origin, the layers of this harder stone being interspersed with softer shales, which in places has led to the formation of terraces and crags. The steep slopes are often incised by fast flowing streams which create cloughs, which are sometimes wooded if they are protected from grazing sheep. Blocks of conifer woodlands also dot the hillsides in some areas – providing stark clues as to the management of the land for forestry and latterly for shooting game. Otherwise the hills are cloaked with acid grassland, with a patchwork of heather, bilberry, blanket bog and bracken.

4.3.4 The Unenclosed Moorland Hills retain a strong sense of openness, with dark night skies and the calls of curlew and skylark can often be heard in the daytime. There are long open views down into the lowlands and valleys, with a few shooting huts, tracks, towers and gritstone outcrops providing the only landmarks in an otherwise smooth and uninterrupted landscape.

Key Environmental Features

Physical

4.3.5 The rolling Unenclosed Moorland Hills are generally at lower elevations than the higher Moorland Plateaux. Although grit crags and glacial erratics provide some texture to the smooth profiles, the steep escarpments create distinctive and dramatic landforms which are steeply incised and drained by fast flowing streams. The Moorland Hills are formed by the Millstone

Grit series. These rocks were laid down in alternating thick bands of coarse, cemented sand and gritstone separated by weaker shales. The gritstones form the fell tops, while the softer rocks form lower areas. The slopes are of even gradient and are covered by shallow podzolised soils. Peat generally covers higher summits (above 400m). The area tends to have a soft rounded topography, the slopes having been smoothed by ice and further softened by the boulder clay mantle of glacial deposition. The erosive action of water flowing off the main hill summits has cut deeply incised valleys, ravines or cloughs. These form a radial pattern of drainage from the higher ground.

4.3.6 Little Mearley Clough, on the steeply sloping western side of Pendle Hill (which falls partly within this Landscape Character Type) is designated as a SSSI for its considerable geological interest. It provides excellent exposure of rock layers originally laid down during the Namurian period of geological history about 320 million years ago. It has been proposed as the standard for this interval of geological time and is thus a site of National importance.

Ecological

4.3.7 The mosaics of upland habitats are of significant nature conservation value within the Unenclosed Moorland Hills Landscape Character Type. These form a rich mosaic of heather moorland, 'grass moor', wet flushes and springs, blanket bogs and semi-natural woodlands which support a wide range of characteristic plants and animals. Where this LCT occurs within the central upland core (Bowland Fells) extensive areas of the heather dominated blanket bog, have been sustained by management of grouse, which has created ideal conditions for upland wildlife such as merlin, hen harrier, curlew, peregrine and golden plover. This has been recognised by their designation as a SPA and SSSI. The largest breeding colony of lesser black backed gulls in Europe has become established on Mallowdale and Tarnbrook fells. The deep cloughs and high level oak woods of the moorland slopes provide additional wildlife interest, as do Millstone Grit crags where they are protected from burning and grazing.

Cultural and Historical

4.3.8 Mesolithic hunting camps probably existed here, although the ephemeral nature of the remains means that visible evidence is rare. Forest clearance by Neolithic and Bronze Age farmers contributed to the spread of heathland and probably mosses and blanket bog. This led to the decline in the natural woodlands which have not recovered since. Evidence of the Bronze Age is well distributed across the area. Despite early clearance it is possible that large tracts of the Moorland Hills remained under forest cover until it was felled during the Anglo-Saxon and Norse periods. Place name evidence suggests that Norse people settled in the spaces available in these areas; especially north of the Ribble names such as gill, fell, moss, thwaite and beck all indicating a strong Viking influence. Parts of the Moorland Hills were included within the Royal Hunting Forests of Bowland and Pendle in medieval times and were subject to Forest

Law. In places, vaccaries (large, open areas which were used to graze livestock and were created by feudal landowners to make economic returns on their 'waste's' beyond the boundaries of the Deer Parks) are also features of the Moorland Hills. The tenancies of the vaccaries were often held by the same families for many years and were later broken up into smaller holdings for rent. Vaccaries were primarily used in the 13th to 15th centuries. Wolves survived until the 17th century within the Forest of Bowland and this is reflected in place names such as Wolf Fell. There is also evidence of griststone quarrying activities at Clougha, Wolf Fell and Saddle Fell; and peat cutting on Parlick Fell, Wolf Fell, Pendle Hill and Goodber Common. Remains of 19th century millstone production near Quernmore can still be seen on the flanks of Clougha Pike. Whilst there has been little new development in the last 150 years, changes have occurred as a result of abandonment of farmsteads, desertion of the more marginal lands, reversion to rushy pasture and other changes in vegetation management. The suitability of the fells and popularity throughout the modern period of grouse shooting has ensured the continued management of heather moorland.

Development, Settlement and Buildings

- Small, isolated gritstone buildings (previously used for stock shelter), although rare, are focal points in the landscape and fields in their vicinity are enclosed by an associated enclosure of stone walls, however most of this landscape lies above the upper limit of enclosure;
- A few minor public roads cross the Unenclosed Moorland Hills, however these are generally unfenced;
- Access tracks for shooting and shooting huts and butts are common built features;
- Occasional shooting cabins (usually of gritstone construction) are also present.

Landscape Character Areas

4.3.9 Landscape Character Areas within this Landscape Character Type include:

Landscape Character Area B1: Mallowdale

- Panoramic, open views westwards to the Furness Peninsula beyond Morecambe Bay;
- The eastern half of the area includes distinctive hill profiles (such as Haylot and Mallowdale), which contrasts with large expanse of open ground in the western half of the area, which slopes downwards to the north;
- Large areas of rocky outcrops are recognisable landscape features;
- Ward's Stone (within the Moorland Plateaux Landscape Character Type) forms the backdrop within views southwards;
- The open landscape creates a sense of wildness, remoteness and space, which is further strengthened by the enormity and dominance of sky in these large scale landscapes;
- Scotch Guide cairn and several other tall, man-made stone cairns provide recognisable landscape features. For example, the cairns on the western end at Clougha, are associated with large areas of stone piles which are left over from the stone quarrying/processing for quernstones; and those at the eastern end of Mallowdale Fell may have been created to help guide shepherd's home across a rocky, dangerous area;
- The distinctive calls of Golden Plover contribute to recognisable sense of place;
- Traditionally built shooting butts and a shooting cabin are also landscape features which provide visual interest and texture to this area;
- The high boundary wall along Haylot/High Stephen's Head is a recognisable feature within the landscape and may have been an important ownership boundary in the past;
- Several surfaced shooting tracks are visible linear features within the landscape;
- Strong sense of remoteness and tranquillity throughout the area.

Landscape Character Area B2: Abbeystead

- Open views across Over Wyresdale and the M6 corridor towards Lancaster from the western edge of this area (Harrisend Fell);
- An absence of farmsteads or hamlets, however, traditionally built shooting butts are a visible built element;
- Ashton Memorial (within Lancaster) is also a key landmark within panoramic, open views westwards from Hare Appletree Fell, which encompass Undulating Lowland Farmland within the foreground, set against a backdrop of Morecambe Bay and Black Combe (within the Lake District National Park);
- Landmark Jubilee Tower (which is built from stone and square in shape) provides a viewing platform for panoramic views westwards towards Morecambe Bay and eastwards towards the Bowland Fells;
- A network of sykes and streams provide visual interest;
- Small patches of plantation woodland on Tarnbrook Fell and Lee Fell provide visual interest;
- Within the Tarnbrook area, enclosed land is visible on the fell side, with associated field barns, which are a landmark feature within views across the landscape;
- An extensive network of surfaced shooting tracks is visible across the whole area, in particular between Catshaw Fell and Blaze Moss.

Landscape Character Area B3: Burn Moor Fell

- Bowland Knotts, a series of jagged, gritstone outcrops provide instantly recognisable landscape features and contribute to local sense of place;
- Very strong sense of remoteness and tranquillity, with bird calls or the sound of the wind providing the only audible noises;
- Panoramic, open views from Bowland Knotts towards an amphitheatre of fells to the south;
- A rugged patchwork of cairns and jagged gritstone outcrops provide texture to the landscape on Austwick Common;
- Dramatic, open views northwards and eastwards towards the Yorkshire Dales from several locations within this area.
- 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 Moorland Hills are snow covered;
- The distinctive calls of birds including the Golden Plover, Gulls, Grouse and Curlew all contribute to recognisable sense of place;
- Sled tracks (related to past quarrying and peat cutting) are visible within the landscape.

Landscape Character Area B4: Pendle Hill

- The distinctive steep northern scarp and flat plateau top determine that this area is an instantly recognisable landmark within views from much of the surrounding landscape, contributing to local sense of place and providing orientation;
- Dramatic, panoramic, open views northwards across the Ribble Valley (and Clitheroe) towards the Yorkshire Dales and the central Bowland Hills (Moorland Plateaux and Unenclosed Moorland Hills Landscape Character Types);
- 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;
- The scars of Ashendean and Mearley Cloughs are also key landscape features within views towards this area.

Landscape Character Area B5: Bleasdale

- Fast-flowing water over boulders and rocks within the higher reaches of the Calder Valley introduces sound and movement to this landscape which has an otherwise strong sense of remoteness and tranquillity;
- There is a general absence of farmsteads or hamlets, however traditional shooting butts are visible built features;
- Open views northwards to the imposing form of Clougha Pike on the horizon, from Stake House Fell;
- Panoramic, open views westwards across Grizedale Lea reservoir (in the middleground) across the Fylde Plain towards Morecambe Bay;
- Calder arbour, with a building surrounded by Scots Pine and dense Rhodedendron is a landscape feature which contrasts with the muted colour and generally smooth texture of the surrounding moorland fells;
- Several small cloughs, incised into the moorland also contribute to the pattern of this landscape;
- Strong sense of openness, with dramatic, dominant ever-changing skies and far reaching skylines and horizons.

Landscape Character Area B6: Wolf Fell to Mellor Knoll

- Patches of coniferous woodland on Fair Oak Fell, ponds along Greenclough and peat haggs at Totridge contribute to recognisable sense of place;
- This area includes non hill land and several farmsteads and small hamlets;
- 'Sled' tracks on Parlick, Wolf, Saddle and Burnslack Fells, which were linked to past quarrying and peat cutting activities are visible features within the landscape;
- The War Department (WD) boundary stones of Wolf Fell are a landmark feature, which contributes to recognisable sense of place;
- Blocks of mixed woodland in the Mellor Knoll/Harden area contribute texture to the landscape;
- Mellor Knoll, a distinctive hill at the eastern edge of this area, facilitates dramatic open views into the Hodder Valley and also provides a backdrop to views from within the valley;
- Strong sense of remoteness and tranquillity throughout most of the area;
- Strong sense of openness, with dramatic, dominant ever-changing skies and far reaching skylines and horizons;
- Visible sled tracks on Wolf Fell, which were associated with former peat cutting and quarrying are landscape features.

Landscape Character Area B7: Langdon

- To the north of Bleasdale, the ruins of Langden Castle (a gritstone building with a tin roof and ornate gothic windows) provides a landmark within views across the area;
- Langden Brook, which contains a patchwork of pebbles along its bed and meanders gently through the adjacent moorland hills (which are incised with small streams and cloughs) is also a recognisable landscape feature;
- This area includes several farmsteads and small hamlets;
- The Trough of Bowland, a pass connecting the valleys of the Marshaw Wyre and the Langden Brook, crosses this landscape character area, providing a dramatic route which facilitates open views across the surrounding Unenclosed Moorland Hills;
- The grey stone along the Trough Road is a recognisable landscape feature which demarcates the old boundary between Lancashire and Yorkshire;
- Buildings include the remains of Trough House, an abandoned stone farmstead and Whitendale Farm which is nestled at the bottom of the fells;
- Totridge provides a dramatic skyline backdrop within views southwards;
- The Whitendale and Brennand river valleys cut through this area of Moorland Hills. Lush, green pastures associated with the fast-flowing river corridors contrast with the more muted colours of the surrounding Brennand and Whitendale Fells; both valleys contain isolated traditional working farmsteads;
- Where the course of the Brennand and Whitendale rivers converge to form the upper reaches of the River Dunsop, engineered, water industry infrastructure such as water pumping stations, pipelines and associated buildings are visible human influence along the river corridor;
- Boundaries are generally demarcated by gritstone walls, with a change to occasional limestone walls to the north of Sykes Farm.

Landscape Character Area B8: Crossdale to Lythe

- Panoramic, open views northwards towards the dramatic skyline profile of the Yorkshire Dales from Whitray Fell contributes to recognisable sense of place;
- The northern half of this area is underlain by gritstone, whilst the southern half is predominantly underlain by sandstone;
- Occasional farmsteads are a feature, located at the bottom of the hills and the edge of the area;
- The route of the old Roman Road is also a key landscape feature, which provides visual contrast with the surrounding smooth, heather moorland;
- The drystone walls within the Lamb Hill/Croasdale areas consist of narrow limestone stones, which erode easily;
- Very strong sense of remoteness and tranquillity throughout most of this area;
- The Great Stone of Fourstones, a large glacial erratic, has steps along its side and provides dramatic, panoramic open views towards the Lakeland Fells to the northwest, across the Fylde Plain and Morecambe Bay to the west and the Bowland Fells to the east;
- Ingleborough and Pen Y Ghent (within the Yorkshire Dales) provide the backdrop to panoramic, open views north and eastwards from Tatham Fells;
- Strong sense of openness, with dramatic, dominant ever-changing skies and far reaching skylines and horizons;
- The colour of the landscape changes with the seasons, from muted browns and greens in Autumn, to vivid purple when the heather flowers in late Spring and white in June with the flowering of cotton grass. The landscape is often white again in the Winter months when the Moorland Hills are snow covered;
- The distinctive calls of birds including the Golden Plover, Peregrine, Hen Harrier, Meadow Pipit, Wheatear, Skylarks, Gulls, Grouse and Curlew all contribute to recognisable sense of place.

Landscape Character Area B9: Goodber Common

- Strong sense of openness throughout this area;
- This area encompasses a relatively large expanse of level ground;
- The dominant habitat is wet acid grassland, including some areas of (seasonally) very wet ground;
- Small pools, supporting acid flora, damselflies, dragonflies and large heath butterfly (one of only two sites in Lancashire) are recognisable landscape features;
- The distinctive stone sheepfold on Goodber Common, Thornton Castle cairn and Higher Thrushgill conifer plantation provide texture within an otherwise smooth landscape;
- Dramatic, panoramic views northwards towards the distinctive profile of Ingleborough (within the Yorkshire Dales) from Summergill and Goodber Fells;
- Strong sense of openness, with dramatic, dominant ever-changing skies and far reaching skylines and horizons;
- Distinctive pattern of traditional sheep farming on Goodber Common, which is linked directly to Roeburndale and Hindburndale.

CURRENT AND FUTURE LANDSCAPE CHANGES AND OPPORTUNITIES

Forces for Change

Past Landscape Changes

4.3.10 Observable changes in the past include:

- Erosion of the underlying geology by streams and brooks to create the distinctive deeply incised, narrow gullies on the smooth fells sides;
- Planting of coniferous woodland, which has introduced a sense of regularity within parts of this otherwise predominantly natural landscape;
- Subsequent clear-felling and replacement of conifers with broadleaf species (often as part of the Unitied Utilities Sustainable Catchment Management Project (SCAMP);
- Footpath erosion as a result of recreational pressures on key routes;
- Introduction of built elements (shooting butts, cabins and tracks) which has changed the landscape pattern;
- Significant archaeological record, demonstrating several thousand years of use, which has influenced the landscape through mining, road building and other cultural and religious activities;
- Drainage of blanket bogs in some areas; and
- Increase in the number of roe deer, which causes a potential threat to woodland development.

Current Landscape Condition

4.3.11 The overall condition of the Unenclosed Moorland Hills Landscape Character Type is considered to be moderate. The condition of heath varies with land ownership. In some areas of poor condition, improvements can be seen where the moorland is managed under Environmental Stewardship. In places, stone grouse butts, cairns and stone buildings are in disrepair. The condition of the blanket bog is generally poor as a result of historic overgrazing and drainage, which has damaged the composition and structure of these habitats (causing a loss of heather to bilberry and cottongrass bog). Sphagnum moss is generally sparse due to the effects of past burning practices. This is, however, improving with lower stocking rates and grazing levels and re-wetting. There is evidence of some clear felling of coniferous woodland on the eastern bank of the River Dunsop (part of the SCAMP project). There is also evidence of fencing in the Langden and Brennand valleys.

Future Landscape Changes and Opportunities

4.3.12 In the short term (5 years) it is likely that there will be continued positive future changes in the form of improved stock management on the moorland and sensitive management of the heath

for grouse shooting. There is potential to expand levels and coverage of grip blocking through Environmental Stewardship. Negative changes are likely to include an increase in the spread of invasive species such as bracken and gorse.

4.3.13 Longer-term changes (20+ years) will be dependent on prevailing incentives and policies and it is therefore challenging to be prescriptive. The AONB Management Plan will provide a key tool for managing landscape change and ensuring a positive future for the area. Potential longer-term changes and key opportunities within the Unenclosed Moorland Hills are outlined below:

- *Agricultural Change and Land Management* - The increase in the spread of invasive species such as bracken and gorse in areas where stocking numbers are reduced may lead to reduced biodiversity and changed key characteristics. The sustainable management of heath will help to contain excessive erosion and retain a key habitat. There may also be pressure for an increase in the number of shooting tracks and related structures, which could be visually intrusive if not designed sensitively. With a potential decline in upland hill farming, there is potential that existing stone structures such as sheepfolds and occasional walls will fall into disrepair. There is also potential for increased frequency of grip blocking through Environmental Stewardship schemes.

- *Climate Change* - Fluctuating temperatures, precipitation and general weather patterns will continue to affect this dynamic landscape, leading to potential increases in the incidences of moorland fire and excessive erosion, the possible spread of invasive species and changes in the species composition of habitats. It is also possible that climate change will lead to increased flash flooding and gully erosion in upland cloughs and sykes.

- *Development* - Large-scale renewable energy development would break up the uncluttered skylines and key views and erode the open and undeveloped character of the area. There is potential pressure from tourist-related development which may result in a related increase in traffic on narrow roads and tracks. Pressure for the expansion of settlements and the conversion of existing vernacular dwellings and farm buildings is also a potential future pressure on this landscape. Such development is often associated with ornamental trees and shrubs which have a suburbanising influence over this predominantly rural landscape.

Sensitivities and Capacity for Change

4.3.14 The Unenclosed Moorland Hills Landscape Character Type is considered to have very high visual sensitivity overall, as a result of the strong sense of openness and generally uninterrupted skylines, coupled with strong intervisibility with adjacent Landscape Character Types. Areas that appear to be hidden within one viewpoint are likely to be highly visible and exposed from

another. This Landscape Character Type also forms a striking backdrop to views from adjacent landscapes. This Type also has high ecological sensitivity and supports a diverse range of rare habitats and species (recognised by designation of much of the area as SAC and SSSI) and an intact and recognisable landscape pattern. In addition, there is a strong sense of remoteness and tranquillity throughout (only partially disturbed at times of shooting). Landscape Character Sensitivity is considered to be high. As a result, overall capacity to accommodate change, without compromising the key characteristics of this Landscape Character Type is considered to be very limited, apart from change which reinforces positive attributes, such as habitat enhancements.

GUIDELINES FOR MANAGING LANDSCAPE CHANGE

4.3.15 The overall strategy for this Landscape Character Type is to conserve and enhance the mosaic of upland habitats including heath and blanket bog, acid grassland, clough woodland, wet flushes and steep incised cloughs – all of which support a range of rare species. The exposed and undeveloped skylines should be conserved and the strong overall sense of remoteness and tranquillity should be maintained. Existing built structures (sheep folds, walls and barns) should be managed, but the general absence of built structures should be maintained.

4.3.16 Specific guidelines include:

Physical Character

- **Restore** areas of degraded blanket bog and peat erosion;
- **Fill in** moorland drainage grips to reverse the impacts of past drainage and re-establish active blanket bogs;
- **Restore** characteristic clough woodlands;
- **Avoid** large-scale tree planting within this landscape where trees are generally absent and there is a strong sense of openness;
- **Avoid** drainage of moorland blanket bog;
- **Encourage** avoidance of fencing in open, highly visible locations, except where its short-term benefits outweigh related landscape or wildlife loss;
- **Encourage** removal of redundant fencelines;
- **Maintain** and where appropriate **enhance** crags and gritstone rock outcrops as landscape features;
- **Promote** the use of gritstone and turf for surfacing, shelters and shooting butts in preference to other materials;

- Where required, **encourage** responsible burning of heather moorland[29] or management through cutting;

Ecological Character

- **Manage** the spread of invasive species;
- **Encourage** re-wetting of blanket bog and the sustainable management of heath to restore and repair areas of erosion and retain key habitats;
- **Encourage** grazing management that promotes more favourable condition of upland semi-natural vegetation;
- **Encourage** habitat linkage to increase robustness to climate change;
- **Promote** the restoration of dwarf shrub communities and bog-mosses (*Sphagna)*;
- **Increase** the biodiversity of existing woodlands through the creation of rides and glades and through the retention of dead wood;
- **Restructure** conifer plantations to create softer outlines and a higher broadleaved content;
- **Encourage** natural regeneration and linkage of existing woodland sites;
- **Introduce** new native woodland broadleaf screen planting around commercial forests to soften their visual impact[30];
- **Restore** clough woodlands, in locations where flushes are not present;
- **Increase** the biodiversity of existing woodlands by the removal of non-native species to Bowland, stockproofing and measures to enhance natural regeneration of trees and woodland species;
- **Maintain** upland spring and flush habitats through appropriate management and **ensure** that they are not affected by tree planting projects;
- **Restore** habitat linkage by de-fragmentation measures and the enhancement of wildlife permeability.

Cultural and Historic Character

- **Conserve** the archaeological and historic environment in order to maintain a rich cultural landscape;
- **Consider** the wider setting of historic or archaeological sites in all land management and site development schemes;
- **Ensure** effective planning for controlling moorland fires;
- **Conserve** footpaths, bridleways or byways along with their associated features such as traditional stiles and gates, which represent historic routeways;
- **Promote** whole fell grazing management where possible, erecting new fences on open fell, only where alternatives are not practicable;

[29] The Heather and Grass burning Code, Natural England, 2007
[30] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission and TEP.
[32] The Heather and Grass burning Code, Natural England, 2007

- **Conserve** distinctive historic landscape features and archaeological sites, including prehistoric cairns and earthwork sites, moorland trackways, industrial and quarry remains;
- Where required, **encourage** responsible burning of heather moorland[32] or management through cutting;
- **Avoid** further construction of dwellings away from existing clusters of buildings, forming an isolated settlement pattern;
- **Repair** derelict stone buildings, using local vernacular materials (gritstone and limestone);
- **Ensure** that highway improvement schemes respect and reflect local character and **encourage** the use of traditional signage where signage is necessary;
- **Repair** sheepfolds and drystone walls;
- **Restrict** the approval of communication masts;
- **Ensure** careful siting and design of visitor facilities, using local materials;

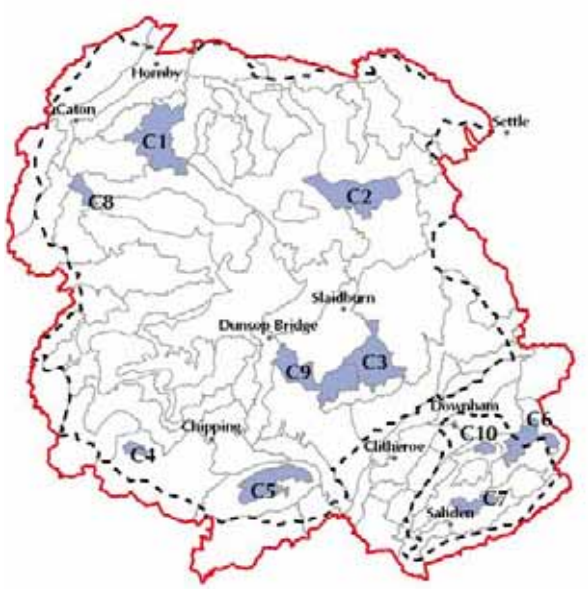
Aesthetic and Perceptual Character

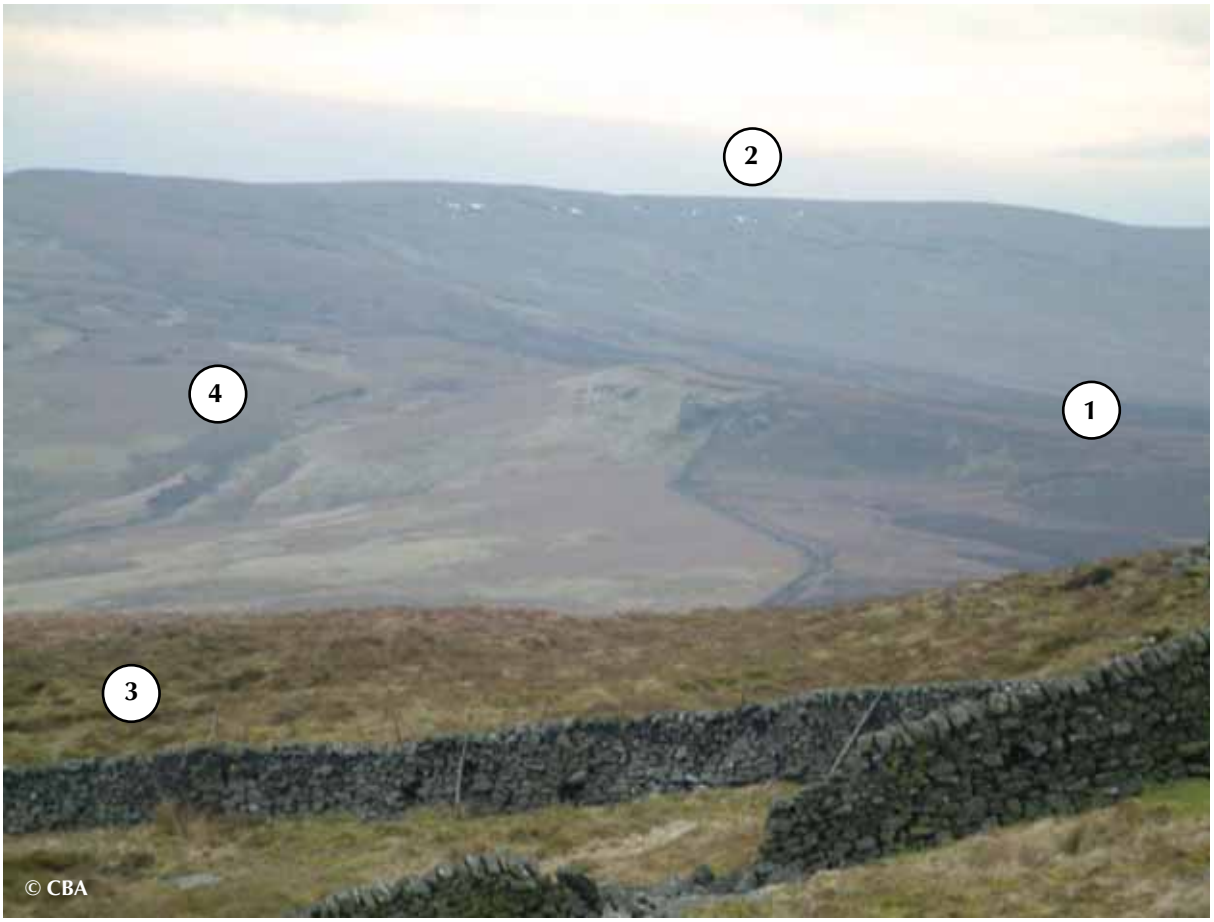
- **Protect** skylines and key views to and from the area from tall, vertical and large-scale developments that may erode the open and undeveloped character of the area;
- **Maintain** the sense of openness;
- **Maintain** the strong sense of tranquillity and remoteness through careful planning of visitor access.

LANDSCAPE CHARACTER TYPE C: ENCLOSED MOORLAND HILLS

Key Characteristics

1. Open and exposed character.
2. Strong sense of elevation with vast, expansive skies and uninterrupted views.
3. Dry stone walls of roughly hewn blocks.
4. Tree cover is generally limited to remnant clough woodland.





4.4 C: ENCLOSED MOORLAND HILLS

CHARACTER ASSESSMENT

Location

4.4.1 The Enclosed Moorland Hills Landscape Character Type occurs within the north and south of the Study Area and also on the Pendle Hill outlier. To south and east of Caton and also north of Slaidburn, this Landscape Character Type forms part of the central core of Moorland Hills at the centre of the AONB. Further to the south, the Enclosed Moorland Hills form outliers at Easington, Newton, Longridge and Beacon Fells. At the north-eastern edge of Pendle Hill, this LCT extends outside the AONB boundary to encompass the eastern edge of Twiston Fells and Rimington Moor.

Landscape Character Description

4.4.2 The Enclosed Moorland Hills encircle the Moorland Plateaux at lower elevations and, like the Unenclosed Moorland Hills, they are characterised by distinct hill profiles. Unlike the Unenclosed Moorland Hills there is more evidence here of human activity in the form of large enclosures – mostly delineated by gritstone walls, made of roughly cut blocks, with distinctive throughstones – and small, isolated stone hamlets and farmsteads. The enclosed fields are mostly large, so there is still a feeling of openness and remoteness and the dramatic, long distance views across wide valleys and surrounding lowlands are unimpeded.

4.4.3 The hills are incised by steep narrow cloughs created by fast flowing streams draining the fells and plateaux above. Heather and bilberry with acid grassland (white moors) scattered woodland, bracken and blanket bog create a mosaic of habitats rich in insect and bird life. Quarries, conifer blocks (some quite extensive as on Longridge and Beacon Fell), sheepfolds, shooting tracks and butts provide evidence of human activity in an otherwise wild and untouched landscape.

4.4.4 The light and weather patterns provide an ever changing backdrop and atmosphere for this landscape character type.

Key Environmental Features

Physical

4.4.5 The rolling Unenclosed Moorland Hills are generally at lower elevations than the higher Moorland Plateaux. Although grit crags and glacial erratics provide some texture to the smooth profiles, the steep escarpments create distinctive and dramatic landforms which are steeply

incised and drained by fast flowing streams. The Moorland Hills are formed by the Millstone Grit series. These rocks were laid down in alternating thick bands of coarse, cemented sand and gritstone separated by weaker shales. The gritstones form the fell tops, while the softer rocks form lower areas. The slopes are of even gradient and are covered by shallow podzolised soils. Peat generally covers higher summits (above 400m). The area tends to have a soft rounded topography, the slopes having been smoothed by ice and further softened by the boulder clay mantle of glacial deposition. The erosive action of water flowing off the main hill summits has cut deeply incised valleys, ravines or cloughs. These form a radial pattern of drainage from the higher ground. The underlying geology is visible within the stone walls that divide parts of this landscape. Quarrying is a feature of parts of this Landscape Character Type, as a result of its rich geological resources of millstone grit.

Ecological

4.4.6 The mosaics of upland habitats are of significant nature conservation value within the Unenclosed Moorland Hills Landscape Character Type. These form a rich mosaic of heather moorland, 'grass moor', wet flushes and springs, blanket bogs and semi-natural woodlands which support a wide range of characteristic plants and animals. Where this LCT occurs within the central upland core (Bowland Fells) extensive areas of the heather dominated blanket bog, have been sustained by management of grouse, which has created ideal conditions for upland wildlife such as merlin, hen harrier, curlew, peregrine and golden plover. This has been recognised by their designation as a SPA and SSSI. The deep cloughs and high level oak woods of the moorland slopes provide additional wildlife interest, as do Millstone Grit crags where they are protected from burning and grazing.

Cultural and Historical

4.4.7 Mesolithic hunting camps probably existed here, although the ephemeral nature of the remains means that visible evidence is rare. Forest clearance by Neolithic and Bronze Age farmers contributed to the spread of heathland and probably mosses and blanket bog. This led to the decline in the natural woodlands which have never since recovered. Evidence of the Bronze Age is well distributed across the area. Despite early clearance it is possible that large tracts of the Moorland Hills remained under forest cover until it was felled during the Anglo-Saxon and Norse periods. Place name evidence suggests that Norse people settled in the spaces available in these areas; especially north of the Ribble names such as gill, fell, moss, thwaite and beck all indicating a strong Viking influence. Parts of the Moorland Hills were included within the Royal Hunting Forests of Bowland and Pendle in medieval times and were subject to Forest Law. Wolves survived until the 17th century within the Forest of Bowland and this is reflected in place names such as Wolf Fell. Later, landscape change occurred as a result of the enclosure and improvement of moorland and woodland wastes to meadows and pasture from the middle of the 16th century; this pressure on land was created by population and economic

growth. The shapes of the fields indicate the type of enclosure; geometric patterns indicate systematic division or enclosure of the commons, usually of the 18th and 19th century. This process created a non nucleated settlement pattern of individual farmsteads which now forms the predominant farming unit on the Moorland Hills. Farm buildings, outbarns, sheep folds and boundary walls are constructed of stone and form most of the oldest buildings of the area. Whilst there has been little new development in the last 150 years, changes have occurred as a result of abandonment of farmsteads, desertion of the more marginal lands, reversion to rushy pasture and other changes in vegetation management. The suitability of the fells and popularity throughout the modern period of grouse shooting has ensured the continued management of heather moorland.

Development, Settlement and Buildings

- Small, isolated gritstone buildings (previously used for stock shelter), although rare are focal points in the landscape and fields in their vicinity are enclosed by an associated enclosure of stone walls; however most of this landscape lies above the upper limit of enclosure;
- A few minor public roads cross the Unenclosed Moorland Hills, however these are generally unfenced;
- Access tracks for shooting and shooting huts and butts are common built features;
- Occasional shooting cabins (usually of gritstone construction) are also present.

Landscape Character Areas

4.4.8 Landscape Character Areas within this Landscape Character Type include:

Landscape Character Area C1: Caton Moor

- Panoramic, open views northwards across the broad floodplain of the Lune Valley contribute to recognisable sense of place;
- Caton Moor windfarm is a dominant landscape feature which introduces a source of noise and movement to the landscape and is a visible landmark within views to the area from several surrounding Landscape Character Types and areas;
- Intricate pattern of stone walls cross the moorland;
- This area includes a large area of common (Whit Moor) which is grass moorland;
- Habitats include heather and grass moorland (on Caton and Claughton Moors);
- Dramatic, panoramic, open views north and westwards across the Fylde Plain and Morecambe Bay;
- The distinctive calls of curlew, lapwing, short-eared owls and peregrines contribute to recognisable sense of place;
- Sense of remoteness, despite the presence of the windfarm;
- Quarrying is a visible landscape feature within this area.

Landscape Character Area C2: Crutchenber

- The dramatic profile of Bowland Knotts provides a skyline backdrop to views northwards;
- Dramatic, open views southwards across the vast expanse of water within Stock's reservoir and the strong vertical form of Gisburn Forest;
- Panoramic, open views northwards towards the three peaks of the Yorkshire Dales;
- An intricate network of low stone walls which cross the fells and contribute to recognisable landscape pattern;
- The underlying limestone is evident as shake holes at Higher and Lower Clough.

Landscape Character Area C3: Easington

- Open views northwards from Easington Fell, towards the village of Newton, which is nestled against a backdrop of Burn Fell, Dunsop Fell and Beatrix Fell, with their smooth texture and rounded profiles;
- Examples of boundary and woodland creation and restoration are evident within parts of this landscape;
- An extensive network of unsurfaced tracks cross this landscape (some of which have been surfaced over the past ten years on Meanley Estate);
- Series of small stone cairns (including Old Ned and the Wife) are visible landscape features which introduce texture to the landscape;
- Wide, open views southwards across the low-lying valley of the River Ribble towards Pendle Hill, provide instantly recognisable sense of place;
- Patches of woodland (including Grindleton Fell plantation) contribute to a sense of enclosure within this otherwise open landscape.

Landscape Character Area C4: Beacon Fell

- Large areas of conifer plantations are landscape features (several of which have been gradually converted to mixed woodland and heath moorland);
- Small, distinctive gritstone outcrop which is dominated by the geometric vertical form of coniferous forestry, providing a landmark within views from surrounding Landscape Character Types and Areas;
- Dramatic, open views northwards towards Fell Foot and Parlick;
- Panoramic open views from the summit (at 266m AOD) on a clear day towards Morecambe Bay (Blackpool Tower), the Lake District and the Isle of Man to the west and across to Clitheroe, Pendle Hill and Preston to the south and east, providing a strongly recognisable sense of place;
- The outer edges of the fell comprise farmed pastures;
- The wooded fell provides a dramatic skyline backdrop within many views towards the area;
- The area encompasses a network of surfaced paths and tracks, which are associated with the visitor facilities.

Landscape Character Area C5: Longridge Fell

- Isolated, long, prominent ridge of hard millstone grit which separates the valleys of the Ribble, to the south, from the Hodder to the north;
- Provides a distinctive skyline backdrop within views from surrounding areas of Undulating Lowland Farmland;
- Bog cotton and grass provide a distinctive white colour in Summer;
- Dense, coniferous plantation woodland cloaks the fell (which has been gradually converted into mixed woodland in places), contributes to its generally green colour, contrasting with the colours of the surrounding lowlands and more muted browns and greys of the central Bowland Fells;
- In places, the woodland is interspersed with patches of heath and grass moorland;
- Open views northwards across the Vale of Chipping towards a backdrop of Unenclosed Moorland Hills and Plateaux, including Wolf Fell, Mellor Knoll and Brown Berry Plain;
- Open views southwards across the wide floodplain of the River Ribble and south-westwards across Liverpool Bay towards Snowdon mountains;
- A low-key network of recreational footpaths and tracks cross this landscape, associated with occasional visitor facilities;
- The white trig point on Longridge Fell summit is a landscape feature which contributes to recognisable sense of place and orientation.

Landscape Character Area C6: Twiston

- Distinctive network of stone walls, which contribute to landscape pattern and divide areas of rough grazing into 'copy's';
- Isolated stone buildings and features punctuate the underlying 'white' moor;
- Strong sense of remoteness and tranquillity throughout;
- Dramatic, panoramic, open views northwards towards the peaks of Ingleborough and Pen Y Ghent within the Yorkshire Dales provide recognisable sense of place;
- Glimpse views to expanses of water within reservoirs close to Barley.

Landscape Character Area C7: Lingbobs and Stainscombe

- Open views towards the expanses of water within Churn Clough reservoir, which provides an instantly recognisable landscape feature;
- Fast flowing water within Ogden Clough introduces a source of noise and movement within this landscape, which has a strong sense of remoteness and tranquillity.

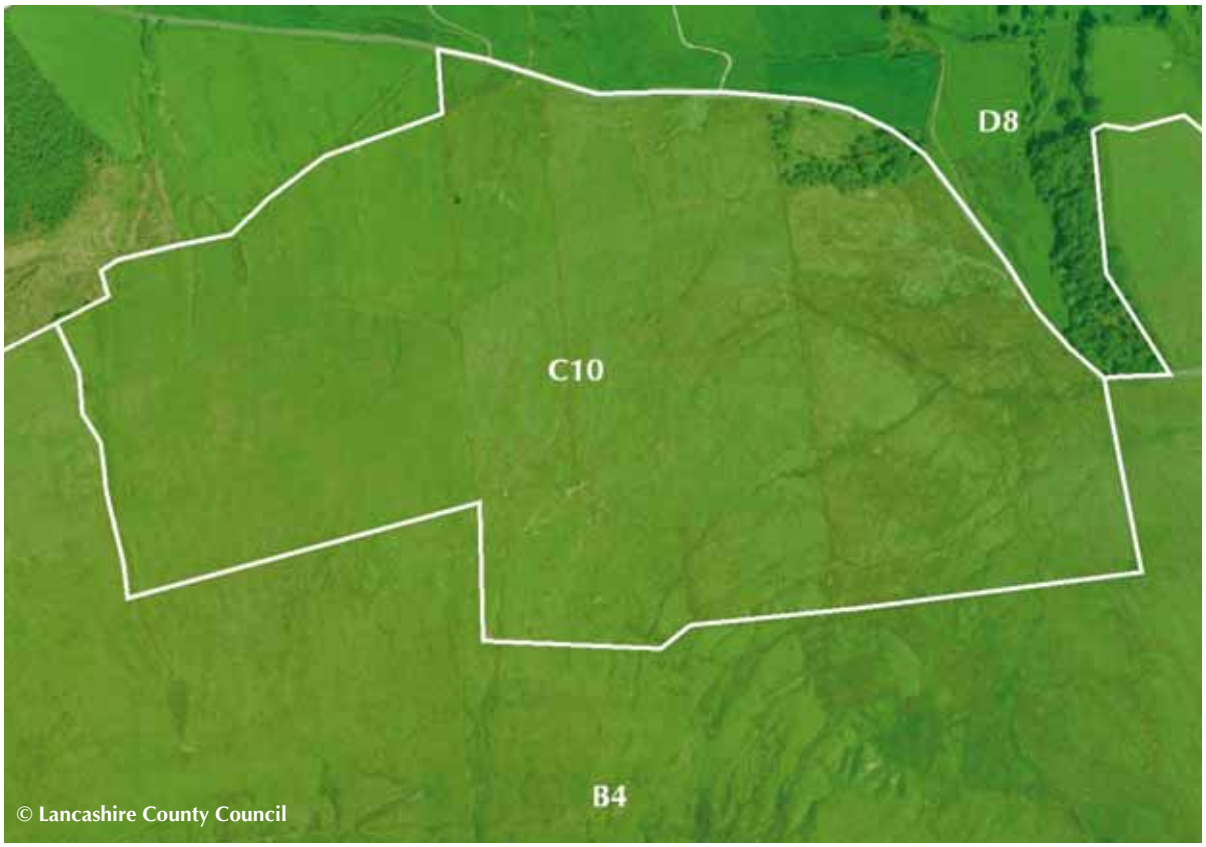
Landscape Character Area C8: Birk Bank

- A textured landscape, resulting from the gritstone outcrops and rocks which punctuate the smooth heather moorland;
- Birk Bank disused quarries are striking landscape features;
- The rugged profile of rocky outcrops on Clougha Pike provide a skyline backdrop to views from the area;
- Low, deciduous trees along Little Windy Clough are also recognisable landscape features;
- Quernmore church, which is nestled against a backdrop of pastoral fields, delineated by stone walls (within the adjacent Undulating Lowland Farmland Landscape Character Type) is a visible landmark within views westwards.

Landscape Character Area C9: Newton and Birkett

- The radio mast on Waddington Fell is a landmark within views to the area from adjacent Landscape Character Areas;
- Waddington Fell sandstone quarry is also a recognisable landscape feature;
- Dramatic, open views to the distinctive profile of Pendle Hill to the south provide recognisable sense of place;
- The stone shooting cabin on Browsholme Moor, with its corrugated iron roof, and Browsholme Tarn are features within views across this landscape;
- Relatively strong sense of remoteness and tranquillity throughout the area;
- Strong sense of openness, with long panoramas, coupled with wide horizons and skies;
- Open views southwards across the distinctive pattern of adjacent Undulating Lowland Farmland with Parkland and Wooded brooks towards the recognisable skyline backdrop of Pendle Hill;
- Patches of sandstone quarrying are also a feature of this area;
- There is evidence of mining in the Newton Fells area;
- There is also a long history of estate owned and managed land within this area, displaying a patchwork of moorland and woodland blocks (for example at Hodder Bank and on Birket and Newton Fells).

Landscape Character Area C10: Downham



- Panoramic open views northwards towards the Yorkshire Dales and also north-westwards towards the central Bowland Fells provide recognisable sense of place and orientation;
- Dramatic views across the patchwork of pasture fields surrounding the estate village of Downham to the north.

CURRENT AND FUTURE LANDSCAPE CHANGES AND OPPORTUNITIES

Forces for Change

Past Landscape Changes

4.4.9 Observable changes in the past include:

- A dynamic landscape constantly changing with evidence of past glacial activity and still being shaped by weathering;
- Lack of stone wall management and introduction of fencing in some areas, which may have lead to a change in landscape pattern and visual clutter;
- Evidence of use of this landscape for mining;
- Footpath erosion as a result of recreational pressures on key routes;
- Introduction of built elements (shooting butts, cabins and tracks) which has changed the landscape pattern;
- Drainage of blanket bogs in some areas;
- Increase in the number of Roe Deer, which causes a potential threat to woodland development.

Current Landscape Condition

4.4.10 The overall condition of the Enclosed Moorland Hills Landscape Character Type is considered to be moderate to good. The condition of heath varies with land ownership. In some areas of poor condition, improvements can be seen where the moorland is managed under Environmental Stewardship. In places, stone grouse butts, cairns and stone buildings are in disrepair. Stone walls are generally in good condition throughout most of the Landscape Character Type. The condition of the blanket bog, where present, is generally poor as a result of historic overgrazing, which has damaged the composition and structure of these habitats (causing a loss of heather to bilberry and cottongrass bog). Sphagnum moss is generally sparse due to the effects of past burning practices. This is, however, improving with lower stocking rates and grazing levels. An active quarry and communications mast are visual detractors.

Future Landscape Changes and Opportunities

4.4.11 In the short term (5 years) it is likely that there will be continued positive future changes in the form of improved stock management on the moorland and sensitive management of the heath for grouse shooting. Negative changes are likely to include an increase in the spread of invasive species such as bracken and gorse.

4.4.12 Longer-term changes (20+ years) will be dependent on prevailing incentives and policies and it is therefore challenging to be prescriptive. The AONB Management Plan will provide a key tool for managing landscape change and ensuring a positive future for the area. Potential

longer-term changes and key opportunities within the Enclosed Moorland Hills are outlined below:

- *Agricultural Change and Land Management* - The increase in the spread of invasive species such as bracken and gorse in areas where stocking numbers are reduced may lead to reduced biodiversity and changed key characteristics. The sustainable management of heath will help to contain excessive erosion and retain a key habitat. There may also be pressure for an increase in the number of shooting tracks and related structures, which could be visually intrusive if not designed sensitively. With a potential decline in upland hill farming, there is potential that existing stone structures such as sheepfolds and walls will fall into disrepair. There is also potential for increased frequency of grip blocking through Environmental Stewardship schemes.

- *Climate Change* - Fluctuating temperatures, precipitation and general weather patterns will continue to affect this dynamic landscape, leading to potential increases in the incidences of moorland fire and excessive erosion, the possible spread of invasive species and changes in the species composition of habitats. It is also possible that climate change will lead to increased flash flooding and gully erosion in upland cloughs and sykes.

- *Development* - Large-scale renewable energy development would break up the uncluttered skylines and key views and erode the open and undeveloped character of the area. There is potential pressure from tourist-related development which may result in a related increase in traffic on narrow roads and tracks and potential fencing of open roads and lanes. Pressure for the expansion of settlements and the conversion of existing vernacular dwellings and farm buildings is also a potential future pressure on this landscape. Such development is often associated with ornamental trees and shrubs which have a suburbanising influence over this predominantly rural landscape.

Sensitivities and Capacity for Change

4.4.13 The Unenclosed Moorland Hills Landscape Character Type is considered to have very high visual sensitivity overall, as a result of the strong sense of openness and generally uninterrupted skylines, coupled with strong intervisibility with adjacent Landscape Character Types. Areas that appear to be hidden within one viewpoint are likely to be highly visible and exposed from another. This Landscape Character Type also forms a striking backdrop to views from adjacent landscapes. There is high ecological sensitivity overall, resulting from the patchwork of habitats which often support rare species (recognised by designation of much of the area as a SAC and SSSI). This type is considered to have a recognisable and intact landscape In addition, there is a strong sense of remoteness and tranquillity throughout (only partially disturbed at

times of shooting), resulting in high landscape character sensitivity overall. As a result, overall capacity to accommodate change, without compromising the key characteristics of this Landscape Character Type is considered to be very limited, apart from change which reinforces positive attributes, such as habitat enhancements.

GUIDELINES FOR MANAGING LANDSCAPE CHANGE

4.4.14 The overall strategy for this Landscape Character Type is to conserve and enhance the mosaic of upland habitats including heath, acid grassland, clough woodlands and grassland habitats which support a range of rare species. Conserve the exposed and undeveloped character of skylines and the overall strong sense of remoteness and tranquillity. The general absence of tall built structures should also be conserved, whilst locally distinctive features (as described in the Landscape Character Area descriptions) should be conserved and enhanced where possible.

4.4.15 Specific guidelines include:

Physical Character

- **Restore** areas of degraded blanket bog and peat erosion;
- **Fill in** moorland drainage grips to reverse the impacts of past drainage and re-establish active blanket bogs;
- **Avoid** large-scale tree planting within this landscape where trees are generally absent and there is a strong sense of openness;
- **Avoid** drainage of moorland blanket bog;
- **Encourage** avoidance of fencing in open, highly visible locations, except where its short-term benefits outweigh related landscape or wildlife loss;
- **Maintain** and where appropriate **enhance** crags and gritstone rock outcrops as landscape features;
- **Promote** the use of gritstone and turf for surfacing, shelters and shooting butts in preference to other materials;
- **Restore** characteristic clough woodlands.

Ecological Character

- **Manage** the spread of invasive species;
- **Enhance** the existing valuable mosaic of moorland habitats;
- **Encourage** the sustainable management of heath and blanket bog to contain excessive erosion and retain key habitats;
- **Encourage** grazing management that promotes more favourable condition of upland semi-natural vegetation;
- **Encourage** habitat linkage to increase robustness to climate change;

- **Promote** restoration and regeneration of heather and bilberry;
- **Seek** opportunities to restructure conifer plantations to create softer outlines and a higher broadleaved content;
- **Encourage** natural regeneration and linkage of existing woodland sites;
- **Introduce** new native woodland broadleaf woodland screen planting around commercial forests to soften their visual impact[33];
- **Increase** the biodiversity of existing woodlands through the creation of rides and glades and through the retention of dead wood[34].

Cultural and Historic Character

- **Conserve** the archaeological and historic environment in order to maintain a rich cultural landscape;
- **Consider** the wider setting of historic of archaeological sites in all land management and site development schemes;
- **Encourage** the sympathetic renovation of derelict moorland farm buildings, giving particular emphasis to the potential impacts of new tracks and services;
- **Ensure** effective planning for controlling moorland fires;
- **Conserve** footpaths, bridleways or byways along with their associated features such as traditional stiles and gates, which represent historic routeways;
- **Promote** whole fell grazing management where possible, erecting new fences on open fells only where alternatives are not practicable;
- **Conserve** distinctive historic landscape features and archaeological sites, including prehistoric cairns and earthwork sites, moorland trackways, industrial and quarry remains;
- Where required, **encourage** responsible burning of heather moorland[35] or management through cutting.
- **Repair** derelict stone buildings, using local vernacular materials (gritstone and limestone);
- **Conserve** and **repair** the network of drystone walls using local gritstone or limestone;
- **Encourage** the sympathetic renovation of derelict moorland farm buildings;
- **Ensure** careful design and siting of visitor facilities and access routes, using local materials;
- **Ensure** that highway improvement schemes respect and reflect local character and **encourage** the use of traditional signage where signage is necessary.

Aesthetic and Perceptual Character

- **Protect** skylines and key views to and from the area from tall, vertical and large-scale developments that may erode the open and undeveloped character of the area;
- **Maintain** the sense of openness;

[33] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission and TEP.
[34] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission and TEP
[35] The Heather and Grass burning Code, Natural England, 2007

- **Maintain** the strong sense of tranquillity and remoteness through careful planning of visitor access.

LANDSCAPE CHARACTER TYPE D: MOORLAND FRINGE

Key Characteristics

1. Traditional stone field barns are a recognisable landscape feature.

2. Dry stone walls of rough hewn blocks create strong patterns within the landscape and reflect the underlying geology.

3. Sheep grazing is the predominant land use, interspersed in places with a patchwork of traditionally managed meadows, wet rushy pasture, in-byes and acid grassland.

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4.5 D: MOORLAND FRINGE

CHARACTER ASSESSMENT

Location

4.5.1 The Moorland Fringe Landscape Character Type occurs in several locations throughout the Study Area and on the Pendle Hill outlier. This Landscape Character Type usually forms the setting for either the Unenclosed Moorland Hills (B) or Enclosed Moorland Hills (C) Landscape Character Types.

Landscape Character Description

4.5.2 The transitional rolling enclosed landscape of the Moorland Fringe skirts the edges of the Moorland Hills, usually at an elevation of more than 200m, and links the upland to the lowland landscape. There is an increasing impact of human activity here, with more dry stone walls, improved pastures, scattered farmsteads and stone out-barns.

4.5.3 The Moorland Fringe is still largely gritstone, although there are small but significant areas of limestone in the Hodder Valley. The rolling landscape provides 'in-bye' pasture for sheep and some cattle, and their movements mark the seasons of the year. Traditional meadows provide rich habitats, and the patches of heather moorland, occasional windswept trees and small woodlands offer variety in the texture of these lower hills. Damp pastures are colonised by wading birds in the spring and early summer, when the calls and sights of curlew and lapwing dominate the scene. Hares are also relatively common in these areas.

4.5.4 Small landscape features such as sheepfolds, tramways and tracks, quarries, mines, field barns and stiles provide local distinctiveness and signs of a more industrial past within a still expansive and atmospheric landscape. Farmsteads are isolated, often strung along a track following a contour of the hill, and drystone walls still form the majority of field boundaries, with distinctive through and coping stones creating strong patterns in the landscape, and reflecting the underlying geology. The distinctive calls of wading birds including lapwing, curlew, snipe and redshank contribute to recognisable sense of place. There are still dramatic open views afforded from these flanks of the fells – towards the villages and valleys of the lowlands, and often featuring reservoirs and parkland in the foreground.

Key Environmental Features

Physical

4.5.5 The fringes of moorland areas are transitional enclosed landscapes between the inhospitable moorland fells and the more intensively farmed land of the lowlands. The Moorland Fringes are underlain by a combination of rocks of the Millstone Grit Series and limestone. The solid geology is overlain by soils whose thickness varies according to elevation and topography; the gentler, more sheltered slopes and broad terraces above the valleys have a thicker covering of soils than the moorland summits. This Landscape Character Type occupies the high ground fringing the main moorland blocks, typically at an altitude of between 215 and 250 m above sea level, sometimes extending to 300m or above. Little Mearley Clough, on the steeply sloping western side of Pendle Hill (which falls partly within this Landscape Character Type) is designated as a SSSI for its considerable geological interest. It provides excellent exposure of rock layers originally laid down during the Namurian period of geological history about 320 million years ago. It has been proposed as the standard for this interval of geological time and is thus a site of National importance.

Ecological

4.5.6 The land within this Landscape Character Type which remains as unimproved agricultural grassland is extremely valuable for nature conservation and, with the moorlands, forms an intimate part of the rich mosaic of upland habitats within the AONB. Manchester Treble-bar, and a rare spider, Clubiona norvegica, have both been recorded on Caton Moor. Of the drier calcareous meadows, the few which are traditionally managed to produce a summer hay crop, support a range of characteristic plants including lady's mantle, sneezewort and adder's tongue. Myttons Meadows (approximately 1km to the north-west of Slaidburn) are designated as a SSSI because they represent an example of traditionally managed, species-rich meadow in Lancashire. Where parts of the in-bye land are still undrained, moisture loving plants such as marsh marigold, yellow iris, ragged robin and marsh thistle thrive. Traditionally managed meadows also provide feeding grounds valuable for twite, while the wet rushy pastures support nationally important populations of birds such as curlew, redshank, lapwing and snipe. Upland rushy pastures were formerly hay meadows which provided a valuable habitat for breeding waders. Acidic grasslands are also important for the survival of several upland bird species. The lower slopes of the moorland fringes show a gradual transition to the verdant grasslands of the Undulating Lowland Farmlands. Bright green 'improved' pasture fields are a feature of the landscape. Within this landscape, flushes, fens, streams and roadside verges also provide key ecological habitats.

Cultural and Historical

4.5.7 The hillside areas, which are set above the densely wooded valleys and below the exposed summits of the open moors, have a long history of land use and settlement. The comparatively small size of some land holdings results from the system of land inheritance whereby land was divided equally between sons. On good farmland this has created a landscape of scattered farmhouses in relatively close proximity. A large number of farmhouses are distinctive 'laithe houses' which were part house, part stall/hay loft. In places, vaccaries (large, open areas which were used to graze livestock and were created by feudal landowners to make economic returns on their 'waste's' beyond the boundaries of the Deer Parks) are also features of the Moorland Hills. The tenancies of the vaccaries were often held by the same families for many years and were later broken up into smaller holdings for rent. Vaccaries were primarily used in the 13th to 15th centuries The pace of enclosure grew during the 16th and 17th centuries and continued as a result of the Parliamentary Enclosure Acts of the 18th and 19th centuries. Whilst some may have an ancient origin, possibly dating back to the prehistoric period, the network grew from industrial pressures and the need to transport finished goods and raw materials between urban centres. The packhorse ways associated with the transport of salt, lime and wool, form particularly distinctive features of the landscape. Recent land use has focused upon sheep grazing; most farms have rights for summer grazing on the open moorland which forms an integral part of the hill farming system. The land has traditionally been used as in-bye land for winter grazing and to make hay in the summer to feed livestock through the winter months.

4.5.8 The lower gentler slopes comprise older enclosures distinguished by their small size and irregular shape. On the higher slopes and steeper areas the later Parliamentary Enclosures are represented by large regular rectangular fields enclosed by robust walls. In the late 20th century, big bale silage replaced hay making and many of the upland fields were improved by drainage and reseeding to enhance productivity. Changes in farming practices ensure that damp pastures and hay meadows are now rare. With the decline in upland farming, more marginal farms have been abandoned and the fields taken over by rushes. Increasingly, farmers are seeking to diversify to supplement falling incomes. Diversification (in the 18th and 19th centuries) is evident in occasional weavers' cottages which incorporated a weaving workshop. There is good preservation of archaeological sites in these marginal locations as a result of the non intensive agricultural practices adopted.

Development, Settlement and Buildings

- Isolated stone farmsteads which are usually constructed from gritstone (the local vernacular material);
- A network of narrow, winding roads, often at the foot of slopes;
- General absence of hamlets or villages;
- Other built elements within this landscape include stone field barns and walls.

Landscape Character Areas

4.5.9 Landscape Character Areas within this Landscape Character Type include:

Landscape Character Area D1: Caton Moor

- Open views southwards towards the wind farm on Caton Moor Enclosed Moorland Hills, which is a landmark;
- Extensive, open, panoramic views northwards across the wide floodplain of the River Lune. Views are, however, interrupted in places by patches of woodland within adjacent areas of Undulating Lowland Farmland;
- The distinctive aerial ropeway and associated metal pole structures is a distinctive feature within this area, which contributes to an instantly recognisable sense of place. The ropeway is still used to transport shale to Claughton brickworks associated with the nearby Claughton Moor quarries;
- Visible steps in the landscape where moorland has been quarried for clay to make bricks (at Claughton Moor quarries).

Landscape Character Area D2: Tatham

- Open views eastwards towards the Great Stone of Fourstone within Croasdale to Lythe Landscape Character Area;
- Traditional stone field barns are landmark features within views across this area;
- A network of minor roads cross the area, running in an east-west direction, providing access to this area and introducing a source of noise and movement;
- Plantation woodland near Bank End brings regularity to the landscape and introduces a recognisable landscape feature within views;
- A network of gritstone walls contributes to recognisable landscape pattern;
- The sheep folds (neat circular stone wall enclosures) at the edge of Lythe Fell, by Green Syke contribute to distinctive landscape pattern;
- Visual contrast within views between the pattern and sense of enclosure of the Moorland Fringe and more open landscapes of the adjacent Unenclosed Moorland Hills.

Landscape Character Area D3: Kettlebeck

- Open views north-eastwards towards the distinctive rolling topography of the adjacent drumlin landscapes;
- Open views northwards towards Ingleborough and other peaks within the Craven Dales;
- Relatively strong sense of openness;
- Windswept trees are a key feature of certain locations within this area;
- Keasden and Clapham commons are key landscape features, with their associated sense of openness, unfenced roads and distinctive pattern of farmsteads.

Landscape Character Area D4: Hare Appletree

- Small belts of linear woodland contribute to an intermittent sense of enclosure, however there is also a relatively strong sense of openness within much of the landscape;
- Jubilee Tower is landmark feature on the horizon within views eastwards;
- From higher points within this area, such as Quernmore Brow, panoramic, open views westwards across lower undulating farmland towards Morecambe Bay and Black Combe (within the Lake District) can be gained;
- Low stone walls, hedgerows and single deciduous trees contribute to landscape pattern;
- The traditional field barn on Quernmore Brow is also a key landscape feature;
- Large skies and wide panoramas are typical of this area;
- Evidence of traditional vaccaries.

Landscape Character Area D5: Beatrix to Collyholme

- The rocky outcrop of Knot or Sugar Loaf disused quarry is a distinctive landscape feature within this character area;
- Belts and patches of deciduous and coniferous woodland provide an intermittent sense of enclosure within this area;
- Dramatic open views into the Lower Hodder Valley from the western edges of the area contribute to recognisable sense of place;
- Pockets of mature single deciduous trees, such as those close to Beatrix Farm, contribute to landscape pattern;
- The dilapidated field barn at Back of Hill is also a landscape feature;
- The landscape is incised by a network of cloughs and sykes which add variety and texture to the landscape;
- Sled tracks (relating to past quarrying and peat cutting activities) are a key historic landscape feature on Dunsop and Burn Fells, which are still visible today, set against the smooth moorland backdrop;
- Beatrix hamlet (an ancient settlement, which is older than Dunsop Bridge), is a feature of the lower end of the valley;
- Hedgerows are a feature of the landscape in places (for example at Burn House).

Landscape Character Area D6: Nicky Nook

- Panoramic open views westwards across the Fylde Plain towards Morecambe Bay and eastwards towards the dramatic rising backdrop of Bowland Fells (Harrisend Fell) to the east;
- Jubilee Cairn (a circular stone tower built to commemorate Queen Victoria's Golden Jubilee) and the tarn on Nicky Nook are landmarks within views across the area, which contribute to recognisable sense of place and orientation;
- The expanses of water within Grizedale Lea and Barnacre reservoirs, which have an engineered character, provide visual contrast to the surrounding patchwork of roughly grazed fields;
- This area has a long history of estate management, which is reflected in the colour of landscape features, such as gates, and other land management techniques;
- Pheasant shooting also has a significant influence on the management of the area;
- The landscape is delineated by a network of hedgerows and drystone walls;
- The distinctive calls of snipe, curlew, oystercatcher, lapwing, redshank and the movement of flocks of starlings contribute to recognisable sense of place.

Landscape Character Area D7: Moorcock

- Relatively strong sense of enclosure provided by patches of woodland;
- Open views northwards to Waddington Fell and southwards towards Pendle Hill (across Clitheroe urban area), with Pendle Hill as a backdrop.

Landscape Character Area D8: Pendleton

- Open views northwards across the Ribble Valley, with its patchwork of deciduous trees and hedgerows;
- This area provides the setting to Pendle Hill (Unenclosed and Enclosed Moorland Hills) and is the foreground landscape seen within many views to the area from surrounding landscapes to the north;
- Minor road corridors tend to be lined with stone walls and hedgerows;
- Spring line' farmsteads are also a key feature of this area.

Landscape Character Area D9: Wheathead

- Patchwork of pastoral fields delineated with stone walls;
- Traffic on Black Moss Road and Wheathead Lane introduce a source of noise and movement, however the overall sense of tranquillity and remoteness is strong;
- Dramatic views southwards towards the expanses of water within Lower Ogden and Lower Black Moss reservoirs, against a backdrop of patches of coniferous woodland.

Landscape Character Area D10: Bleasdale

- This area has a long history of estate management (encompassing the Bleasdale and Claughton estates), which is visible within several landscape features, for example, the colour of gates and signs;
- Distant sense of enclosure within this landscape, which is provided by the backdrop of surrounding Moorland Hills to the north;
- Patches of mixed and coniferous woodland provide an intermittent sense of enclosure;
- Single deciduous trees and a network of stone walls and hedgerows at field boundaries contribute to recognisable landscape pattern;
- A network of surfaced and unsurfaced tracks cross the Bleasdale Estate;
- On the Bleasdale Estate, beech hedgerows along roadsides and surface tracks are recognisable landscape features;
- The drystone walls within this area comprise rough blocks of varying shapes and sizes, which usually have two or three courses of through stones, and are generally higher than within other Landscape Character Areas;
- Isolated traditional stone farmsteads are dotted throughout the landscape and are often associated with mature deciduous trees;
- A series of stream corridors and stone bridges, such as the Packhorse bridge crossing the River Brock, are key landscape features;
- Activity associated with pheasant, partridge and duck shoots has an influence on this landscape;

- Bleasdale circle, surrounded by mature trees, is also a landmark feature within views across the landscape;
- The Bleasdale 'bowl, formed by the hills around the headwater of the River Brock, Fairsnape, Oakenclough Fell and Beacon Fell, and centred on the village of Bleasdale, with its traditional stone church is a key landscape feature within this area;
- The rising mass of Beacon Fell dominates the horizon in views southwards across the area;
- Road corridors are generally lined with walls and/or hedgerows.

Landscape Character Area D11: Longridge

- This area provides the northern setting for Longridge Fell and is therefore the foreground within many views southwards from character areas to the north;
- The small, linear hamlet of Walker Fold at the southern boundary of this area encompasses a row of gritstone cottages, several of which have grey-painted window and door frames;
- Views northwards to Longridge Fell are dominated by the dense cover of coniferous woodland.

Landscape Character Area D12: Upper Sabden Valley

- The village of Newchurch in Pendle, with its rows of white cottages is a feature within views across this area; as is the small settlement of Spen Brook with its mill tower, nested against the rising moorland hill backdrop with patches of coniferous woodland;
- The traditional field barn at Sabden Fold is a key landscape feature;
- The landscape is delineated by a network of drystone walls and electricity poles are also a feature in places;
- Views southwards and eastwards across the lush, improved pastures of the Calder Valley, with a network of hedgerows and post and wire fences on the lower slopes towards urban areas of Barrowford and Colne to the southeast are characteristic of this area;
- A highly textural landscape; gorse, rushes, wind blown trees and upland stone walls all contribute to the character of this area;
- Ancient farmsteads (for example, the remains of the vaccary at Sabden Fold) and old houses are a feature of this area;
- The wide floodplain of Sabden Brook contains distinctive patchwork of pasture meadows.

Landscape Character Area D13: Park House

- Patchwork of grazed fields which are delineated by drystone walls, hedgerows and occasional post and wire fences;
- Mature deciduous trees line Park House Lane road corridor;
- Framed views into Roeburndale Valley to the west and Hindburndale Valley to the north;
- A distinctive pattern of farms within the area, which generally start at the river bottoms of the Roeburndale (Landscape Character Area I2) or Hindburndale (Landscape Character Area I3) Wooded Rural Valleys and finish with the common rights on Goodber Common (Landscape Character Area B9);
- There is evidence of bell pit mining within the landscape;
- Most of the land within this area is difficult to farm, resulting in a patchwork of semi-improved pastures, meadows and rushy pastures;
- The rising mass of Goodber Common provides a dramatic, smooth backdrop to views southwards and contributes to recognisable sense of place.

Landscape Character Area D14: Abbeystead

- From the northern half of the area, open views into the intimate valley corridor of the Marshaw Wyre contribute to recognisable sense of place within this Landscape Character Area;
- To the south, a strong sense of enclosure is provided by dramatic rising masses of Catshaw and Hawthornthwaite Fells;
- There is a relatively strong sense of remoteness and tranquillity within this landscape;
- Landscape pattern comprises a patchwork of large-scale, regular pastoral fields which are delineated with a combination of hedgerows and drystone walls.

Landscape Character Area D15: Wolf - Burnslack

- From the south of this area, open views across Leagram Hall, with its associated parkland landscape contributes to recognisable sense of place;
- The landscape is crossed by several north-south running brook (or stream) corridors, which run from the higher Moorland Hills to the north into the lower Undulating Farmland to the south;
- In the western half of the area, plantations associated with Wolfen Hall provide a sense of enclosure;
- There is a relatively strong sense of tranquillity throughout this landscape, within which, road corridors are generally absent;
- Wolf, Saddle and Burnslack Fells provide a strong sense of enclosure to the north, and provide a dramatic moorland backdrop to views northwards.

Landscape Character Area D16: Middop

- Within views westwards from this area, the rising mass of Pendle Hill is a dominant landscape feature, which provides instantly recognisable sense of place and orientation;
- Looking eastwards, there is a relatively strong sense of enclosure as a result of the White Moor hills, which outside the eastern boundary of the Study Area;
- The landscape is predominantly cloaked by a patchwork of marginal pasture fields. In the north of the area, these fields provide the transition between the higher Moorland Hills to the south and the more open, lower drumlin fields to the north;
- In the north of the area, from Middop Hill, open views across lower undulating farmland and drumlin landscapes to the north contribute to recognisable sense of place;
- Occasional isolated farmsteads are dotted within this landscape, which is otherwise devoid of settlements.

CURRENT AND FUTURE LANDSCAPE CHANGES AND OPPORTUNITIES

Forces for Change

Past Landscape Changes

4.5.10 Observable changes in the past include:

- Improved pasture surrounded by stone walls where intensive farming has spread onto higher ground;
- Outside of protected nature conservation areas ecological interest has been depleted through agricultural improvements;
- Evidence of historic settlement in the form of stone terraced cottages and laithe houses;
- Increase in traffic levels, particularly the number of delivery wagons and buses.

Current Landscape Condition

4.5.11 The overall condition of the Moorland Fringe Landscape Character Type is considered to be moderate. Stone walls are generally well maintained, although there is evidence of lack of management in places, which has led to the introduction of barbed wire fences to act as stock proofing where walls have deteriorated. There is also evidence of erosion of roadside verges along the minor road corridors and suburbanisation of traditional farmsteads. Although much of the land within the Moorland Fringe is agriculturally improved, patches of rare ecological habitat remain (for example, species-rich meadows and patches of acid grassland).

Future Landscape Changes and Opportunities

4.5.12 In the short-term it is likely that there will be continued positive changes in the form of on-going management of SSSI's. Negative changes may include reduced budgets of national agencies and organisations to actively conserve protected areas and continued decline of valuable habitats and features within the wider landscape. There is also pressure for the conversion of distinctive vernacular buildings to residential use and a loss of the small scale field pattern of scrub and pasture due to farm abandonment or amalgamation of farm units.

4.5.13 Longer-term changes (20+ years) will be dependent on prevailing incentives and policies and it is therefore challenging to be prescriptive. The AONB Management Plan will provide a key tool in managing change and ensuring a positive future for the area. Potential longer-term changes and key guidelines within this Landscape Character Type are outlined below:

- *Agricultural Change and Land Management* - Stream corridors are vulnerable to pollution and run-off associated with the adjacent predominantly pastoral fields. Stone walls on higher ground are vulnerable to any moves to more extensive farming of livestock. These key landscape features could be lost through neglect or removed to enable the

amalgamation of adjacent fields. Increased financial pressures and reduced availability of higher level agri-environment payments leading to field boundaries, sheepfolds, limekilns, walls and hedges and traditional farm buildings suffering from lack of management.

- *Climate Change* - In this area, climate changes are likely to be less marked and provide for a more gradual change in for example, species composition or habitat characteristics.

- *Development*- Increasing traffic associated with tourism and recreation could put pressure on the road system. This could lead to inappropriate highway improvements and signage, or large scale schemes that permanently alter the character of the landscape. Large –scale renewable energy developments on the skyline and in key views could erode the open and generally undeveloped character of this Landscape Character Type. Loss of vernacular building styles and use of inappropriate building materials may also result in a loss of local landscape characteristics.

Sensitivities and Capacity for Change

4.5.14 Overall, this Landscape Character Type is considered to have moderate ecological sensitivity. Although ecological habitats have been depleted in places by agricultural improvement, valuable ecological habitats include traditionally managed meadows and acid grassland which support a diverse range of bird species. Cultural and historic sensitivity is high as a result of the numerous scattered, isolated, traditional historic farmsteads, the presence of packhorse ways and parish boundary markers, which are still visible within the present landscape. As a result, landscape character sensitivity is considered to be high. There is strong intervisibility with adjacent Landscape Character Types, giving high visual sensitivity. Other sensitivities within the landscape include the distinctive pattern of stone walls which exhibit traditional construction styles and wall copings, stunted hawthorns and small, semi-natural clough woodlands, which are landscape features. As a result, this Type is considered to have high landscape character sensitivity. Overall, the Moorland Fringe Landscape Character Type has limited to moderate capacity to accommodate change without compromising key characteristics.

GUIDELINES FOR MANAGING LANDSCAPE CHANGE

4.5.15 The overall strategy for the Moorland Fringe Landscape Character Type is to conserve the remote, multi textured character of upland habitats including acid grassland, herb rich meadows and rush dominated pasture; and the existing recognisable pattern of drystone walls, hedgerows and settlements, and to enhance these features where they are depleted. There is also a need to conserve open views across adjacent Landscape Character Types.

4.5.16 Specific guidelines include:

Physical Character

- **Actively manage** the changing landscape in order to ensure that key landscape features and attributes are not lost through climate change or other significant agents of landscape change;
- **Seek** sustainable management options for areas of abandoned farmland to ensure that neglect does not lead to adverse change in landscape or ecological terms.

Ecological Character

- **Improve** the structure and condition of existing woodland resource through active management[36];
- **Ensure** that new woodland planting is delivering Biodiversity Action Plan objectives and is sympathetic to local topography[37];
- **Manage** grazing to facilitate natural regeneration of woodland[38];
- **Improve** water quality within the surrounding upland catchments to protect and conserve aquatic habitats;
- **Conserve** existing species-rich meadows, acid grassland and damp pastures for wading birds;
- **Encourage** the management of permanent pasture to maximise its ecological value by avoidance of ploughing, re-seeding, artificial fertiliser, drainage and other potentially damaging farm operations as well as encouraging appropriate stocking levels and land use cycle;
- **Encourage** the reversion of improved grassland within the higher enclosure to an acid grassland/heathland cover, with the long term aim of extending the moorland landscape downslope;
- **Where** possible, remove invasive, non-native species;
- **Conserve** the pattern of sparse tree cover, stunted hawthorns and trees associated with farmsteads;
- **Restore** and **re-create** herb-rich grassland.

Cultural and Historic Character

- **Conserve** and **enhance** existing buildings and farmsteads by repair and maintenance using local gritstone and limestone as appropriate, as well as removal of rubbish and derelict machinery;
- **Conserve** the pattern of drystone walls and distinctive construction styles;

[36]Lancashire Woodland Vision, Lancashire County Council, Forestry Commission and TEP.
[37]Lancashire Woodland Vision, Lancashire County Council, Forestry Commission and TEP.
[38] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission and TEP.

- **Encourage** maintenance of gritstone or limestone walls and associated banks and ditches with gritstone or limestone in areas where it is the predominant underlying rock type;
- **Conserve** distinctive historic features such as parish boundary feature, earthworks, packhorse tracks and sheepfolds to maintain a rich cultural landscape;
- **Protect** traditional farm buildings, limekilns, sheepfolds and archaeological features which are key features of the landscape;
- **Encourage** a built form which respects the simple architecture of farmsteads and cottages and reflects the characteristic settlement pattern of small, isolated clusters of dwellings and individual farmsteads;
- **Target** agri-environment schemes to conserve and enhance valuable landscape features, including traditional farm buildings, limekilns, sheepfolds, clough woodlands and field boundaries, including hedgerows;
- **Maintain** the strong landscape pattern through active management and enhancement of stone walls, hedgerows and other boundary features;
- **Ensure** that highway improvement schemes respect and reflect local character and **encourage** the use of traditional signage where possible;
- **Conserve** traditional roadside features, including boundary markers (stone/metal) and signposts;
- **Seek** design solutions to road safety issues which retain the character of the enclosed narrow lanes, walls and verges;
- **Conserve** and maintain the historic network of footpaths and packhorse trails;
- **Promote** informal recreation through appropriate signage and management.

Aesthetic and Perceptual Character

- **Encourage** the implementation of traditional signposts and resist excessive signage and lighting along road corridors where safe to do so;
- **Protect** uncluttered skylines and key views to and from the area from tall, vertical and large-scale developments that may erode the character of the area.

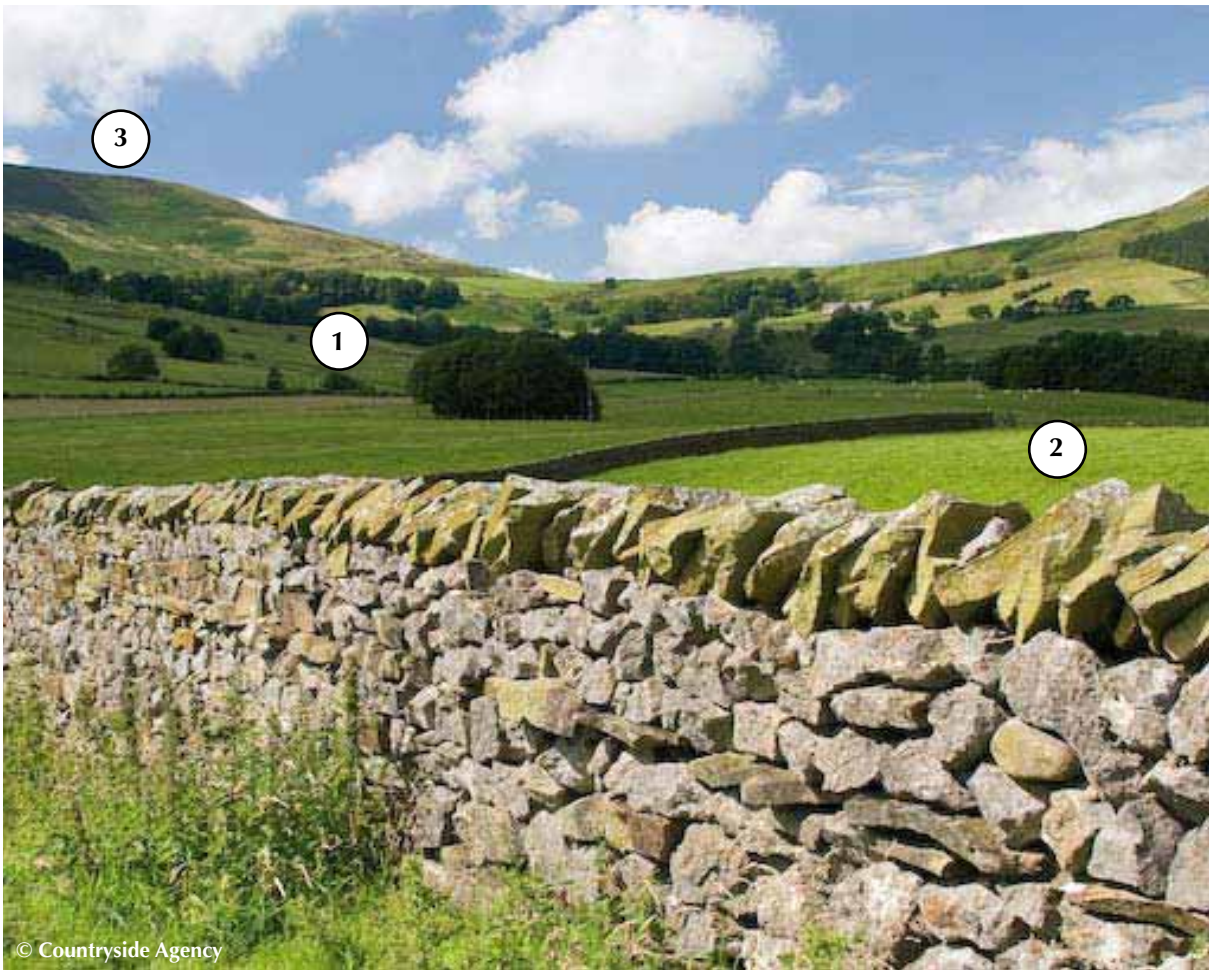
LANDSCAPE CHARACTER TYPE E: UNDULATING LOWLAND FARMLAND

Key Characteristics

1. Many mixed farm woodlands, copses and hedgerow trees.

2. Intricate tapestry of grazed fields.

3. A patchwork of wood and pasture when viewed from the fells.



4.6 E: UNDULATING LOWLAND FARMLAND

CHARACTER ASSESSMENT

Location

4.6.1 There are eight occurrences of the Undulating Lowland Farmland within the Study Area. Landscape Character Areas within this Type occur at the northern, western, southwestern and eastern edges of the Study Area; and in all cases, this Landscape Character Type extends outside the boundary of the AONB. To the south of Quernmore, this LCT is adjacent to the Farmed Ridges (N), Moorland Fringe (D) and Wooded Rural Valleys (I) Landscape Character Types, whilst to the southwest of Chipping, the type borders the western edge of a swathe of Undulating Farmland with Parkland (Landscape Character Type G). To the south of High Bentham, this Type abuts the northern edges of Moorland Fringe (D), Unenclosed Moorland Hills (B) and Wooded Rural Valleys (I) Landscape Character Types, whilst to the east and west, the landscape is enclosed by the Drumlin Field (K) Landscape Character Type. In the southeast of the Study Area, this Landscape Character Type borders the Undulating Lowland Farmland with Settlement and Industry (H), Undulating Lowland Farmland with Wooded Brooks (F), Moorland Fringe (D) and Drumlin Field (K) Landscape Character Types.

Landscape Character Description

4.6.2 Undulating Lowland Farmland covers much of the lower parts of the Study Area. It is also the underlying layer to 3 other linked Landscape Character Types – Undulating Lowland Farmland with wooded brooks, Undulating Lowland Farmland with parkland and Undulating Lowland Farmland with Settlement and Industry. In this case (E) the Landscape Character Type is predominantly farmland.

4.6.3 This lowland landscape, largely under 150m, has its underlying geology masked by heavy boulder clays deposited by glacial activity. Viewed from the fells this enclosed landscape comprises a rich patchwork of pastures, mixed farm woodlands, copses, hedgerows and scattered picturesque stone villages. Wading birds, hares and roe deer can all be seen here. The small villages consist of stone houses and cottages and the churches provide landmarks in the landscape. Isolated farmsteads are often marked with single mature trees. Quarries and mines can also be found. Winding lanes are lined with hedgerows and herb rich verges, and hedges with mature trees clearly delineate the pastures and meadows in summer and autumn time. Dry stone walls are only seen as boundaries in the areas where boulder clay is absent. This is an intimate and scenic landscape, where there is a relatively strong sense of tranquillity in many places.

Key Environmental Features

Physical

4.6.4 Generally below 150m, the Undulating Lowland Farmland forms a transitional zone between the low lying plains of soft glacial deposits and the high fells of Bowland, formed from Millstone Grit. This Landscape Character Type, whether composed of limestone, grit, shale or sandstone, is of gentle topography when compared to the fells and hills. Glacial action has accentuated the differences by further tempering the relief of the low-lying areas by the deposition of glacial drift. Deep drift is conspicuous where hedges predominate over stone walls, as quarrying is only possible where the drift is sufficiently thin. Many of the woodlands which survive on the steep slopes of the deep cloughs and valley sides are of ancient origin and represent a rich natural resource. They include alder and ash woods on the base-rich soils of the valley floors grading through to lowland oakwoods and upland oak woods on the upper valley sides.

Ecological

4.6.5 Within the Lowland Farmland Landscape Character Type, hedges, hedgerow trees, roadside verges and small stream corridors provide important ecological habitats within an otherwise intensively farmed landscape. Pockets of habitat within this Landscape Character Type are designated as local wildlife sites for their ecological interest.

Cultural and Historical

4.6.6 The landscape proved more favourable to early settlers than the nearby uplands. By the Roman period it is probable that much of this Landscape Character Type was already settled fairly densely and the fort established at Ribchester (outside the southern boundary of the AONB) is known to have had some civilian government functions. Whilst Roman remains (besides roads) outside the immediate area of the forts are poorly represented in the record, the presence of Roman Kilns at Quernmore show that they exploited the natural resources of the area. Medieval population pressures, which saw the utilisation of small areas of the mosslands elsewhere in Lancashire also led to the continuation of small woodland clearances along the Ribble and the Lune. This created a small scale intimate landscape of scattered farms linked by winding roads with irregular fields and patches of surviving woodland on stream and field edges, a landscape which has remained intact to this day. The majority of enclosure dates from the medieval period and has created a landscape of small fields which are mostly hedged although stone walls are evident where geology lies close to the surface. A field pattern of ridge and furrow is still visible in several places.

4.6.7 During the 17th century lime was used for land improvement in these lowland fringe areas and many small farm kilns remain in the landscape, along with the larger industrial kilns and

quarries of the 19th and 20th century. The quarrying of Millstone Grit also proved to be important in this Landscape Character Type. Where suitable stone was available, querns and millstones could be quarried and manufactured to meet the needs of the population. Lead and Silver were extracted in Rimington from the 17th century and mined and manufactured in places such as at Quernmore to meet the demands of the rapidly industrialising county.

Development, Settlement and Buildings

- Pattern of small, nucleated hamlets and villages, including Whitechapel and Quernmore, which contain an assortment of traditional gritstone vernacular houses and cottages.
- The churches in both villages provide landmarks within views from surrounding Undulating Lowland Farmland landscapes.

Landscape Character Areas

4.6.8 Landscape Character Areas within this Landscape Character Type include:

Landscape Character Area E1: Whitechapel

- A patchwork of gently undulating pastoral fields which are delineated with a network of stone walls and hedgerows;
- Traditional gritstone buildings within the small hamlet of Whitechapel;
- Cheese press stone is feature of the landscape at Whitechapel, which contributes to recognisable sense of place;
- Network of hedgerows and stone walls provide a sense of intermittent enclosure along the extensive network of narrow lanes;
- Single deciduous trees are landscape features, often associated with isolated farmsteads;
- Barns Fold reservoir is a key landscape feature with several views across the area;
- Dramatic, open views northwards towards the central Bowland Fells, which form the skyline backdrop;
- The rising mass of Beacon Fell, with its dense coverage of coniferous woodland provides the immediate backdrop within several views northwards.

Landscape Character Area E2: Quernmore

- Dramatic, open views to Clougha Pike and Birk Bank Quarries which form the skyline horizon within views eastwards;
- Caton Moor windfarm is a striking landscape feature on the horizon of views to the east;
- Distinctive pattern of low drystone walls (several of which contain smooth boulders) cross the patchwork of pastoral fields;
- Quernmore church tower is a landmark within views across this landscape;
- A patchwork of pastoral fields, interspersed with patches of coniferous and mixed woodland and occasional single deciduous field trees;
- Landscape is crossed by a network of minor roads which are often lined with stone walls, and occasional hedgerows (which include a mix of beech, hawthorn and holly);
- Beech hedgerows are also a striking feature in places;
- Telecommunications masts and pylons are visible features on the ridge at the western edge of the AONB, to the west of Quernmore
- Views westwards along the corridor of the M6, which introduces a source of noise and movement;
- The buildings of Lancaster University are also visible within views westwards from this landscape.

Landscape Character Area E3: Forest of Mewith

- Framed views westwards into the Hindburndale Valley;
- Dramatic, open views southwards towards the rising mass of Moorland Hills at the centre of the Forest of Bowland;
- Patchwork of rolling pastoral fields, delineated by a network of stone walls;
- Settlement pattern of scattered, relatively isolated farmsteads (several of which have been redeveloped as residences);
- The landscape is dissected by a series of stream (beck) corridors and is crossed by a network of narrow rural roads;
- Single, mature deciduous trees are a feature of the landscape, often associated with farmsteads;
- Panoramic, open views northwards towards the peaks of the Yorkshire Dales.

Landscape Character Area E4: Rimington

- The rising mass of Pendle Hill provides a strong sense of enclosure and recognisable sense of place within views southwards from this area of undulating, predominantly pastoral farmland;
- Looking northwards across the area there is a greater sense of openness, resulting from views into the gently meandering corridor of the River Ribble to the north;
- Landscape pattern comprises a patchwork of relatively small, regular and irregular fields, which are divided by a network of hedgerows and drystone walls;
- Mature deciduous trees, both within fields and hedgerow boundaries create texture within the landscape and are striking landscape features;
- The landscape is crossed by a network of narrow rural lanes, which provide access to the small, traditional linear hamlets of Rimington and Newby, in addition to occasional scattered farmsteads.

Landscape Character Area E5: Bleasdale

- Linear belts of mixed woodland provide a varied sense of enclosure and contribute texture to this patchwork of gently undulating pastoral fields;
- A series of brook (or stream) corridors also cross the landscape and field boundaries comprise a combination of hedgerows, fences and occasional stone walls;
- Within views northwards, Bleasdale Moors provide a dramatic backdrop, of which, the relatively smooth profile contrasts with the more textured landscape of rolling farmland within this area;
- To the south, there is a stronger sense of openness with views into the northern end of the Brock Valley and towards Beacon Fell Country Park providing recognisable sense of place;
- Settlement pattern encompasses isolated, scattered farmsteads and other landmark buildings such as Bleasdale church and tower;
- There is a relatively strong sense of tranquillity throughout much of this area due to the general absence of road corridors crossing the landscape.

Landscape Character Area E6: Pendleton

- This Landscape Character Area is situated outside the boundary of the AONB;
- This area encompasses a distinctive pattern of narrow, linear pastoral fields, the pattern of which extends from the adjacent moorland fringe at the eastern edge of Pendle Hill;
- These fields are lined with a network of hedgerows which often contain hedgerow trees. These corridors of vegetation create texture and visual interest within the landscape;
- To the east, the instantly recognisable profile of Pendle Hill contributes to recognisable sense of place;
- The small, linear village of Pendleton, with its rows of traditional stone-built terraces provides the main settlement within this landscape;
- Several minor rural roads run east-west across the landscape, connecting Pendle Hill and other settlements to the south and east, with the town of Clitheroe to the northwest;
- Sense of tranquillity within this area is greatly disturbed by its proximity to the A59 main road corridor to the northwest and Pendleton Road to the southeast;
- Views of the urban edge of Clitheroe are also characteristic of views northwards across this landscape.

Landscape Character Area E7: Worston

- In views north-westwards from this area, the urban edge of Clitheroe is a recognisable feature, set against the rising backdrop of Moorland Hills towards the centre of the AONB;
- Sense of tranquillity within this area is greatly disturbed by its proximity to the A59 main road corridor to the northwest and Pendleton Road to the southeast;
- The patchwork of regularly shaped pastoral fields are lined with a network of hedgerows, which often contain hedgerow trees;
- Within views south-eastwards from the area, the dramatic profile of Pendle Hill contributes to recognisable sense of place and orientation;
- The small, traditional linear village of Worston, in addition to one isolated farmstead, is the only settlement within the area.

Landscape Character Area E8: Dudland and Gisburn

- Situated immediately to the south of the Ribble Valley corridor, this area contains a series of meandering narrow stream corridors (becks and sykes), which feed the main river;
- In places these are lined with belts of mature deciduous woodland, which highlight the corridors as features within the surrounding patchwork of pastoral fields;
- Views into and across the Ribble Valley from the northern part of this area contribute to recognisable sense of place, whilst Pendle Hill, to the south, provides a distant sense of enclosure;
- Field boundaries are predominantly lined with hedgerows, which often contain hedgerow trees and provide an intermittent sense of enclosure;
- At the eastern end of the area, the medium-sized linear village of Gisburn, situated at the junction of the A682, A62 and A59 main road corridors, contains an assortment of traditional stone and white-painted buildings;
- Within the remainder of this area, settlement pattern is dispersed;
- Sense of tranquillity is greatly disturbed within this area due to the presence of the main A59 road corridor which crosses the landscape;
- Buildings (i.e. Castle cement works and chimney) associated with the industrial quarries between Chatburn and Clitheroe are dominant within views westwards from the western edge of the area.

CURRENT AND FUTURE LANDSCAPE CHANGES AND OPPORTUNITIES

Forces for Change

Past Landscape Changes

4.6.9 Observable changes in the past include:

- A decline in mature hedgerow trees as a result of age or loss due to agricultural intensification;
- Expansion of villages or modernisation of farmsteads utilising non-local building materials (e.g. red brick) which are intrusive to local vernacular character;
- Amalgamation and diversification of dairy farms;
- Intensification of agricultural management, involving chemical fertiliser and herbicide applications, which has affected herb-rich meadows.

Current Landscape Condition

4.6.10 The overall condition of the Undulating Lowland Farmland Landscape Character Type is considered to be good. Most landscape features are generally well managed. Patches of unmanaged woodland are, however, visible and there is also evidence of neglected stone walls and loss of hedgerows which have been replaced by fences.

Future Landscape Changes and Opportunities

4.6.11 An overall consistency in the use of vernacular building materials indicates a local desire to retain the traditional character of the area.

4.6.12 Negative changes may include the amalgamation of farms, leading to a change in the character of the landscape, with new access tracks and the creation of larger fields leading to a loss of traditional stone wall and hedgerow field boundaries. Amalgamation of farms may also result in farmhouses and associated buildings being converted to new uses and key landscape features being lost through neglect or removal to enable the amalgamation of adjacent fields. The increased farm size may lead to the demand for new agricultural buildings, affecting character and views. Increased financial pressures and reduced availability of higher level agri-environment payments, may lead to field boundaries, walls and hedges suffering from a lack of management.

4.6.13 Longer-term changes (20+ years) will be dependent on prevailing incentives and policies and it is therefore challenging to be prescriptive. The AONB Management Plan will provide a key tool in managing change and ensuring a positive future for the area. Potential longer-term changes and key guidelines within this Landscape Character Type are outlined below:

- *Agricultural Change and Land Management* – The amalgamation of farms and increased drive for efficient farm businesses or farms being sold as farmers and their families leave the industry; all have a direct impact on how the land is managed. As the key characteristics of the area are significantly influenced by agricultural practices, change in the industry could lead to an erosion of landscape quality.

- *Climate Change* – The likely effects of climate change on this landscape are not easily identifiable with current information, however, agricultural practices could be affected, with a move to plough up pasture and plant new crops.

- *Development* – Diversification of farm businesses leading to introduction of new buildings and the conversion of farm buildings fro residential and other uses could gradually change the nature of the working landscape and its associated attributes. The erosion and loss of vernacular building styles through introduction of cheaper alternatives will reduce the distinctive characteristics of this area. Encroachment of large scale development such as wind farms, masts and pylons into the area would also have a significant effect on landscape character. It is likely that there will also be increased pressure from residential and tourist related developments, affecting the character and quality of the landscape.

Sensitivities and Capacity for Change

4.6.14 The ecological sensitivity of this Landscape Character Type is represented by a combination of hedges, hedgerow trees and small stream corridors. Sensitive cultural and historic features include the intact network of stone walls, stone bridges and historic villages. In addition, the landscape displays a mature structure of hedgerows and hedgerow trees, culminating in moderate landscape character sensitivity. Overall, visual sensitivity is considered to be moderate. In places, woodland and hedgerows limit views, whilst there is strong intervisibility with the Unenclosed and Enclosed Moorland Hills and Moorland Plateaux Landscape Character Types.

GUIDELINES FOR MANAGING LANDSCAPE CHANGE

4.6.15 The overall strategy for the Undulating Lowland Farmland Landscape Character Type is to manage the impact of changes in land and building use, conserve or restore neglected landscape features and encourage the retention and restoration of historic and vernacular building materials and details and the careful design of new buildings. There is also a need to conserve the network of dry stone walls, hedgerows and hedgerow trees which contribute to a diverse landscape pattern. The network of lanes, together with the rich roadside verges should

be maintained and enhanced. Open views towards the Unenclosed and Enclosed Moorland Hills, and the Moorland Plateaux Landscape Character Types should be conserved.

4.6.16 Specific guidelines include:

Physical Character

- **Conserve** and **enhance** woodland, hedges and stone walls.

Ecological Character

- **Link** existing woodlands and hedgerows to create a continuous woodland network to reverse habitat fragmentation[39];
- **Create** new hedgerows and regenerate existing hedges to maintain and enhance key landscape linkages[40];
- **Encourage** farmers to adopt less intensive farming practices so that the vitality of existing woodlands is not compromised and to facilitate natural regeneration in and around woodland habitats[41];
- **Conserve** ancient semi-natural woodlands;
- **Conserve** the lowland herb-rich haymeadows and unimproved neutral grasslands;
- **Conserve** species-rich grass verges and increase species diversity by management where appropriate;
- **Ensure** the long-term viability of parkland trees and landscapes by restructuring, using species of local provenance wherever possible[42];
- **Encourage** conservation of existing key landscape features and habitats;
- **Encourage** habitat linkage to increase robustness to climate change;
- **Ensure** that verges are managed to maximise floristic biodiversity value.

Cultural and Historic Character

- **Encourage** conservation of significant historic features and buildings;
- **Avoid** road widening, improvement works, cable and pipeline laying which would affect species-rich grass verges;
- **Avoid** road improvements that would affect the setting or structure of stone bridges or walls;
- **Encourage** sympathetic new uses for disused farm buildings to ensure that they remain a viable and contributory feature within this landscape; and;
- **Encourage** the use of local building materials, in particular gritstone and limestone;
- **Ensure** that highway improvement schemes respect and reflect local character and **encourage** the use of traditional signage where possible;

[39] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission and TEP.
[40] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission and TEP.
[41] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission and TEP
[42] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission and TEP

- **Conserve** traditional boundary features, such as stone/metal boundary markers, signage and wells;
- **Maintain** stone walls, which are often located on the outskirts of villages, respecting local differences in style and construction;
- **Conserve** local features such as small farm lime kilns which signify the past use of limestone as a soil conditioner;
- **Restore** white railings, walls and hedgerows.

Aesthetic and Perceptual Character

- **Conserve** open views towards the surrounding higher Moorland Plateaux and Unenclosed and Enclosed Moorland Hills Landscape Character Types;
- **Conserve** the distinctive settings to rural settlements;
- **Ensure** that any potential new development on the edges of villages reflects the characteristic clustered form; development should be sited to retain views to landscape features and landmarks, such as church towers on the approaches to villages.

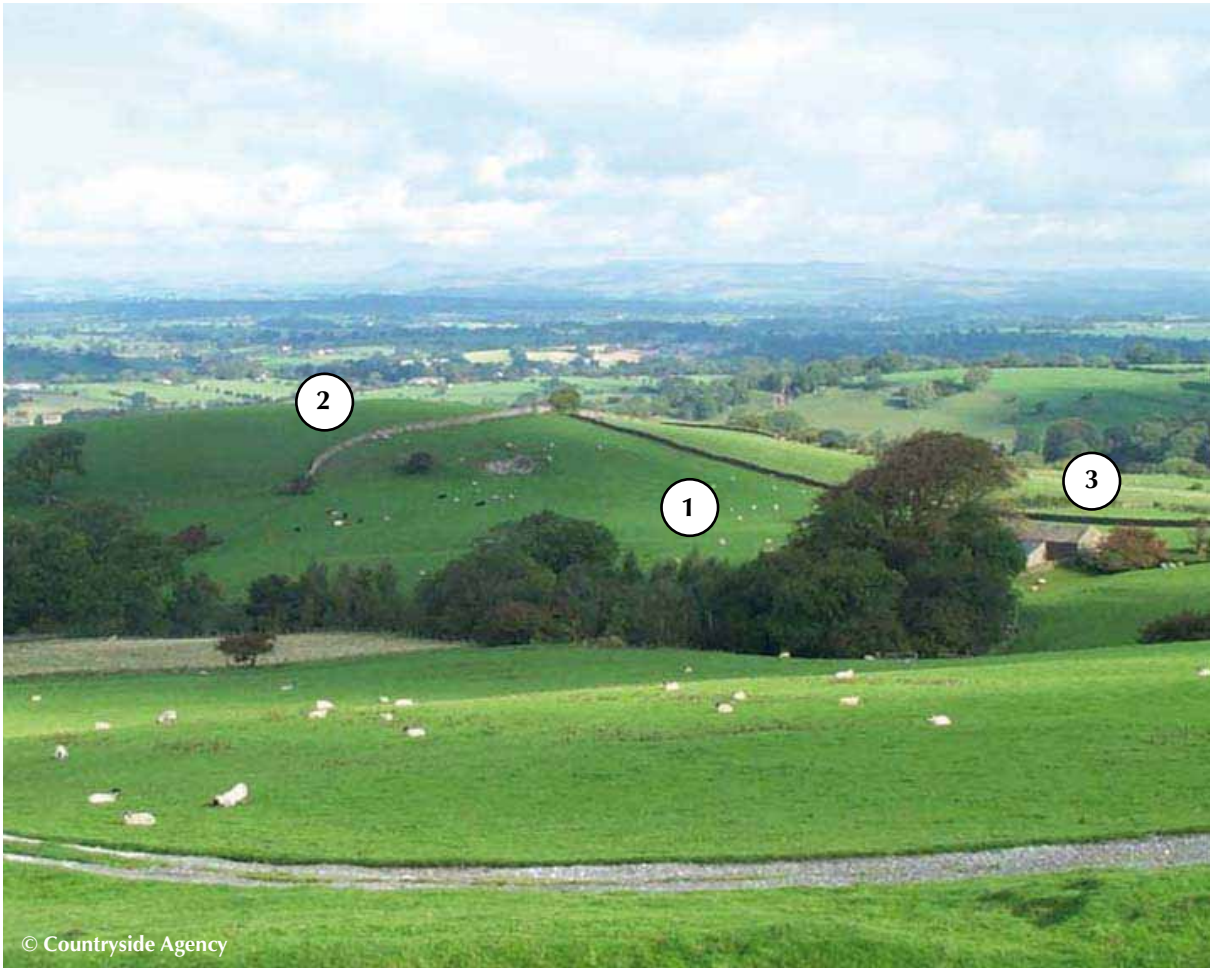
LANDSCAPE CHARACTER TYPE F: UNDULATING LOWLAND FARMLAND WITH WOODED BROOKS

Key Characteristics

1. A patchwork of pasture fields which are deeply incised by wooded troughs and gorges.

2. A network of hedgerows and stone walls delineate field boundaries.

3. Several scattered cottages and clustered villages.



4.7 F: UNDULATING LOWLAND FARMLAND WITH WOODED BROOKS

CHARACTER ASSESSMENT

Location

4.7.1 The Undulating Lowland Farmland with Wooded Brooks Landscape Character Type occurs in four different locations at the periphery of the Study Area. There is also one occurrence on the Pendle Hill outlier. This Landscape Character Type is generally located adjacent to other lowland LCT's, rather than the higher Moorland Plateaux, Unenclosed and Enclosed Moorland Hills.

Landscape Character Description

4.7.2 Undulating Lowland Farmland with Wooded Brooks is a lowland landscape generally below 150m, encompassing a patchwork of pastoral fields incised by wooded brooks and river gorges, which provide a sense of enclosure, sheltered habitats and distinctive landscape patterns.

4.7.3 Sinuous broadleaved woods, following the courses of hidden brooks, are often filled with wild garlic and bluebells in the springtime: the colour, texture and smells of which create a strong sense of place. A network of minor lanes criss-cross the landscape, with stone hump backed bridges a key feature within the wooded valleys where the roads cross the brooks. The small fields are enclosed by hedges and trees, and herb rich verges line many of the lanes in this area. The valleys provide a strong contrast with the small enclosed fields, and they often house historic industrial sites which were located in order to harness water power generated by the swift flowing brooks.

4.7.4 The clough woodlands are often of ancient origin, they have survived due to their steepness and inaccessibility and are often important wildlife habitats, housing roe deer and badgers. The birdsong and tranquillity of these woods are distinctive features.

Key Environmental Features

Physical

4.7.5 Similarly to the Undulating Lowland Farmland Landscape Character Type (E), this LCT generally occurs below 150m and forms a transitional zone between the low lying plains of soft glacial deposits and the high fells of Bowland, formed from Millstone Grit. This Landscape Character Type, whether composed of limestone, grit, shale or sandstone, is of gentle topography when compared to the fells and hills. Glacial action has accentuated the differences by further tempering the relief of the low-lying areas by the deposition of glacial

drift. Deep drift is conspicuous where hedges predominate over stone walls, as quarrying is only possible where the drift is sufficiently thin.

Ecological

4.7.6 Many of the woodlands which survive on the steep slopes of the deep cloughs and valley sides are of ancient origin and represent a rich ecological resource. They include alder and ash woods on the base-rich soils of the valley floors grading through to lowland oakwoods and upland oak woods on the upper valley sides. In addition, remnant species-rich grassland is often also a feature of the steep slopes. Flushes, fens and marshy grassland are also present within this landscape. To the north of Bolton-by-Bowland, New Ing Meadow has been designated as a SSSI. It forms one of the few remaining herb-rich hay meadows which were once typical of this part of Lancashire (and have been almost completely destroyed as a result of agricultural intensification).

Cultural and Historical

4.7.7 The landscape proved more favourable to early settlers than the nearby uplands. By the Roman period it is probable that much of this Landscape Character Type was already settled fairly densely and the fort established at Ribchester (outside the southern boundary of the AONB) is known to have had some civilian government functions. Medieval population pressures, which saw the utilisation of small areas of the mosslands elsewhere in Lancashire also led to the continuation of small woodland clearances along the Ribble and the Lune. This created a small scale intimate landscape of scattered farms linked by winding roads with irregular fields and patches of surviving woodland on stream and field edges, a landscape which has remained intact to this day. The majority of enclosure dates from the medieval period and has created a landscape of small fields which are mostly hedged although stone walls are evident where geology lies close to the surface. In the middle of the 18th century, rapid changes in the large-scale application of technology resulted in a move towards an industrialised society. This was represented within the landscape by the development of cotton weaving mills at Calder Vale, Caton and Sabden. Lappet Mill at Calder Vale was built in 1835 and is powered by the River Calder.

Development, Settlement and Buildings

- Pattern of small, linear villages such as Calder Vale and larger, nucleated villages, such as Caton;
- Calder Vale is a model industrial village that was created by the Jackson family to improve the industrial potential of nearby Oakenclough. They built two cotton mills and terraced housing for the workers. One of these, Lappet Mill, built in 1835, is still a working cotton mill;

- Calder Vale predominantly consists of gritstone terraced cottages (displaying a combination of white, brown and green painted window and door frames) which overlook the river corridor, with Lappet Mill on the opposite riverbank.
- Caton contains a mixture of traditional, predominantly gritstone cottages, which are centred around the church and Black Bull pub; and more modern houses;
- Scattered, isolated farmsteads, which display typical gritstone vernacular building materials and styles are also a feature of this Landscape Character Type.

Landscape Character Areas

4.7.8 Landscape Character Areas within this Landscape Character Type include:

Landscape Character Area F1: Calder Vale and Brock Valley

- Two distinctive wooded river corridors, following the courses of the Rivers Calder and Brock, which are lined with mature, mixed, deciduous woodland (parts of which are ancient, semi-natural);
- This woodland has a striking pattern when viewed from the surrounding pastoral farmland – highlighting the linearity of the brook corridors;
- In Spring, carpets of bluebells within the various woodlands (including Calder Vale woods) provide a carpet of blue striking colour;
- Coppiced woodland and strips or blocks of damp birch woodland are also a feature in places;
- In-field trees, including oak, alder and occasional ash, provide recognisable landscape features;
- Coniferous woodland on the rising mass of Beacon Fell dominates the skyline of views eastwards;
- Sound of fast-flowing water within the River Calder, which is lined with mature deciduous woodland;
- A series of narrow lanes (such as Snape Rake Lane) often pass through the woodland and are often lined with short, trimmed hedgerows or wide verges with trees, such as alder and birch, in addition to varied flora;
- These lanes have a strongly rural character, with few road markings and little signage, other than named lanes;
- Hedgerows generally contain a mixture of oak, alder and hawthorn.

Landscape Character Area F2: Bolton by Bowland to Waddington

- Gently sloping limestone topography is incised with a pattern of wooded cloughs which descend the slopes and flow into the valley of the River Ribble to the south;
- The villages of Waddington, Grindleton, Holdon and Bolton –by- Bowland are situated at the foot of the wooded cloughs or brooks;
- The brook corridors (including Drakenhouse Brook, West Lough Brook, Skirden Brook and Holden Brook) are lined with mature deciduous trees and woodland which provides a sense of enclosure and breaks up the surrounding predominantly pastoral farmland;
- Between Waddington and Grindleton, the wooded brooks flow from northwest to southeast;
- This woodland is key feature within views across the area;
- Framed views southwards across the broad valley of the River Ribble;
- The Copy Nook hotel (distinctive vernacular building) at the junction of two minor roads which converge at Holden is a recognisable landscape feature which contributes to sense of place and orientation;
- Waddington and Grindleton are two relatively large, linear villages, which display terraces of traditional stone buildings lining the road corridors;
- Stone bridges which cross the River Ribble are landscape features;
- At Grindleton, bluebells introduce strong colour when in season;
- A network of narrow lanes cross the landscape, often lined with hedgerows, stone walls and white railings;

- The Sawley and Gisburn B roads run east-west across this area, connecting the villages and introducing a source of noise and movement into the landscape;
- Lanes in the Forest Becks and Bolton-by-Bowland area are often lined on one or both sides with trees, shrubs, varied flora and mixed hedgerows with hedgerow trees;
- Lanes in the Holden and Copy Nook area are often lined with drystone walls (which contain rounded, smooth boulders) and white railings;
- Patches of woodland provide a sense of enclosure and single deciduous trees at the edges of the road corridors and within fields are also a feature;
- The smell of wild garlic within the numerous woodlands is recognisable in the Spring.

Landscape Character Area F3: New Row

- This small area extends outside the southern edge of the AONB and encompasses several patches of mature mixed woodland, which contribute to an intermittent sense of enclosure within views across the landscape;
- Matured deciduous woodland lining the corridor of Duddel Brook is also a feature of this landscape, which contributes to recognisable sense of place within views;
- The sound of fast-flowing water within the brooks contributes to recognisable sense of place.

Landscape Character Area F4: Caton

- The large, nucleated village of Caton exhibits a combination of traditional stone buildings and more modern materials;
- Linear belts of deciduous woodland punctuate this landscape and contribute to an intermittent sense of enclosure within views;
- The aerial ropeways associated with Claughton Moor quarries are a key recognisable feature within the landscape, which contribute to recognisable local sense of place;
- Panoramic, open and framed views northwards across the wide floodplain of the River Lune;
- To the south, the dramatic rising profile of the central Unclosed and Enclosed Moorland Hills and Moorland Plateaux Landscape Character Types form the skyline backdrop to views;
- Field boundaries are delineated by a combination of stone walls and hedgerows, which provides a relatively stark contrast with the adjacent Moorland Fringe and Moorland Hills;
- Minor road corridors are often lined with mature hedgerows which limit open views across the landscape.

CURRENT AND FUTURE LANDSCAPE CHANGES AND OPPORTUNITIES

Forces for Change

Past Landscape Changes

4.7.9 Observable changes in the past include:

- A decline in mature hedgerow trees as a result of age or loss due to agricultural intensification;
- Expansion of villages or modernisation of farmsteads utilising non-local building materials (e.g. red brick) which are intrusive to local vernacular character;
- Amalgamation and diversification of dairy farms;
- Intensification of agricultural management, involving chemical fertiliser and herbicide applications, which has affected herb-rich meadows;
- Loss of, and decline in field boundaries, through agricultural intensification and lack of management, resulting in replacement with stock fencing, and boundary removal to create larger fields;
- A loss of grassland, which has since been reversed.

Current Landscape Condition

4.7.10 The overall condition of the Undulating Lowland Farmland with Wooded Brooks Landscape Character Type is considered to be moderate to good. Most landscape features are generally well managed. Patches of unmanaged woodland are, however, visible and there is also evidence of neglected stone walls (for example at Sabden Fold) and loss of hedgerows which have been replaced by fences.

Future Landscape Changes and Opportunities

4.7.11 An overall consistency in the use of vernacular building materials indicates a local desire to retain the traditional character of the area; however, there has recently been a trend towards the addition of conspicuous modern farm buildings, slurry tanks and silage bays.

4.7.12 Negative changes may include the amalgamation of farms, leading to a change in the character of the landscape, with new access tracks and the creation of larger fields leading to a loss of traditional stone wall and hedgerow field boundaries. Amalgamation of farms may also result in farmhouses and associated buildings being converted to new uses and key landscape features being lost through neglect or removal to enable the amalgamation of adjacent fields. Conversion of historic buildings may also be an issue. The increased farm size may lead to the demand for new agricultural buildings, affecting character and views. Increased financial pressures and reduced availability of higher level agri-environment payments, may lead to field boundaries, walls and hedges suffering from a lack of management.

4.7.13 Longer-term changes (20+ years) will be dependent on prevailing incentives and policies and it is therefore challenging to be prescriptive. The AONB Management Plan will provide a key tool in managing change and ensuring a positive future for the area. Potential longer-term changes and key guidelines within this Landscape Character Type are outlined below:

- *Agricultural Change and Land Management* – The amalgamation of farms and increased drive for efficient farm businesses or farms being sold as farmers and their families leave the industry; all have a direct impact on how the land is managed. As the key characteristics of the area are significantly influenced by agricultural practices, change in the industry could lead to an erosion of landscape quality. Changes in land ownership or agricultural management may also lead to a decline in the management of brook side woodlands, which are a key feature of the landscape pattern of this Type.

- *Climate Change* – The likely effects of climate change on this landscape are not easily identifiable with current information, however, agricultural practices could be affected, with a move to plough up pasture and plant new crops. Woodland could also be lost with a change in temperatures and average rainfall levels.

- *Development* – Diversification of farm businesses leading to introduction of new buildings and the conversion of farm buildings for residential and other uses could gradually change the nature of the working landscape and its associated attributes. The erosion and loss of vernacular building styles through introduction of cheaper alternatives will reduce the distinctive characteristics of this area. Encroachment of large scale development such as wind farms, masts and pylons into the area would also have a significant effect on landscape character. It is likely that there will also be increased pressure from residential and tourist related developments, affecting the character and quality of the landscape.

Sensitivities and Capacity for Change

4.7.14 The ecological sensitivity of this Landscape Character Type is represented by the combination of hedges, hedgerow trees, diverse brook corridors and the mature woodland which lines these water courses. There is also a rich industrial archaeological record associated with millstone production and an intact network of stone walls, stone bridges and historic villages. In addition, the landscape displays a mature structure of hedgerows and hedgerow trees. This Type is considered to have moderate landscape character sensitivity. Overall, visual sensitivity is considered to be moderate. In places, woodland and hedgerows limit views, whilst there is strong intervisibility with the Unenclosed and Enclosed Moorland Hills and Moorland Plateaux Landscape Character Types.

GUIDELINES FOR MANAGING LANDSCAPE CHANGE

4.7.15 The overall strategy for the Undulating Lowland Farmland with Wooded Brooks Landscape Character Type is to conserve and enhance the mature deciduous woodland and single trees that line brook corridors and contribute to the distinctive landscape pattern. Herb rich river and brook banks and scattered herb rich meadows and pastures should also be conserved and enhanced. The retention and restoration of historic and vernacular building materials and details, and the careful design of new buildings should also be encouraged. Where landscape features have been neglected, opportunities should be sought for restoration. There is also a need for conservation of the network of stone walls, roadside verges, hedgerows and hedgerow trees. Open views towards the unenclosed and enclosed moorland hills and moorland plateaux Landscape Character Types, and views framed across the Lune and Ribble, should also be conserved.

4.7.16 Specific guidelines include:

Physical Character

- **Conserve** and **enhance** woodland, hedges and stone walls.

Ecological Character

- **Link** existing woodlands and hedgerows to create a continuous woodland network to reverse habitat fragmentation[43];
- **Conserve** and **enhance** herb-rich river banks;
- **Create** new hedgerows and regenerate existing hedges to maintain and enhance key landscape linkages[44];
- **Encourage** farmers to adopt less intensive farming practices so that the vitality of existing woodlands is not compromised and to facilitate natural regeneration in and around woodland habitats[45];
- **Encourage** conservation of existing key landscape features and habitats;
- **Encourage** habitat linkage to increase robustness to climate change.
- **Increase** the proportion of river corridor woodland through natural regeneration and new woodland planting[46];
- **Increase** the percentage of lowland oak and mixed woodlands;
- **Conserve** the water quality of streams and becks and **limit** run off or pollution from adjacent pastoral farmland;
- **Conserve** ancient semi-natural woodlands;

[43] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission and TEP.
[44] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission and TEP.
[45] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission and TEP
[46] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission and TEP.

- **Conserve** species-rich grass verges and increase species diversity by management where appropriate;
- **Ensure** that UK BAP habitats are appropriately managed.

Cultural and Historic Character

- **Encourage** conservation of significant historic features and buildings;
- **Encourage** sympathetic new uses for disused farm buildings to ensure that they remain a viable and contributory feature within this landscape; and;
- **Encourage** the use of local building materials, in particular gritstone and limestone;
- **Ensure** that highway improvement schemes respect and reflect local character and **encourage** the use of traditional signage where possible;
- **Maintain** stone walls, which are often located on the outskirts of villages, respecting local differences in style and construction;
- **Conserve** local features such as small farm lime kilns which signify the past use of limestone as a soil conditioner;
- **Conserve** the distinctive settings to rural settlements;
- **Ensure** that any potential new development on the edges of villages reflects the characteristic clustered form; development should be sited to retain views to landscape features and landmarks, such as church towers on the approaches to villages.
- **Conserve** traditional boundary features such stone/metal boundary markers and wells.

Aesthetic and Perceptual Character

- **Conserve** open views towards the surrounding higher Moorland Plateaux and Unenclosed and Enclosed Moorland Hills Landscape Character Types;
- **Conserve** open and framed views across and into the corridors of the River Ribble and Lune;
- **Maintain** the distinctive pattern of hedgerows and stone walls at field boundaries;
- **Restore** white railings.

LANDSCAPE CHARACTER TYPE G: UNDULATING LOWLAND FARMLAND WITH PARKLAND

Key Characteristics

1. Mature parkland trees and other ornamental designed landscape features contribute to the 'designed' estate character.
2. Gently undulating topography.
3. Remnant boundaries of former parkland are also visible features.

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4.8 G: UNDULATING LOWLAND FARMLAND WITH PARKLAND

CHARACTER ASSESSMENT

Location

4.8.1 The Undulating Lowland Farmland with Parkland Landscape Character Type is predominantly situated within the southern half of the Study Area, to the south of Dunsop Bridge and Slaidburn and east of Chipping. This Landscape Character Type also occurs at the western edge of the Study Area (to the north of Scorton) and also on the Pendle Hill outlier, at Downham and Sabden. This LCT borders a range of adjacent LCT, including Undulating Lowland Farmland with Wooded Brooks (F), Wooded Rural Valleys (I) and Moorland Fringe (D).

Landscape Character Description

4.8.2 Undulating Lowland Farmland with Parkland generally occurs below 150m and comprises pasture, which is interspersed with country houses and associated designed landscapes, particularly parkland. These parkland areas tend to consist of avenues of trees, specimen trees, veteran trees, clumps of woodland, beech hedgerows, formal ornamental planting and some hard landscape features such as pathways and drives, bridges, white metal railings, follies and ha has. There isn't always a house linked to the parkland, however there may be ancillary buildings such as kennels, cottages, barns and reservoirs. These are largely 18th and 19th century designed landscapes, built for estate owners to enjoy when visiting the area for game hunting and shooting. Evidence suggests that much of the parkland probably originated from earlier managed landscapes such as deer parks, and former settlements.

4.8.3 Undulating Lowland Farmland with Parkland also contains scattered isolated farmsteads and small historic villages, some of which are linked to the estate or park, and hence have buildings of similar age and design. The lowland farmland is enclosed with a mixture of stone walls (reflecting local geology) and hedgerows; clumps of woodland and single mature trees also dot this pastoral and picturesque landscape.

Key Environmental Features

Physical

4.8.4 Similarly to the Undulating Lowland Farmland Landscape Character Type (E), this LCT generally occurs below 150m and forms a transitional zone between the low lying plains of soft glacial deposits and the high fells of Bowland, formed from Millstone Grit. This Landscape Character Type, whether composed of limestone, grit, shale or sandstone, is of gentle

topography when compared to the fells and hills. Glacial action has accentuated the differences by further tempering the relief of the low-lying areas by the deposition of glacial drift. Deep drift is conspicuous where hedges predominate over stone walls, as quarrying is only possible where the drift is sufficiently thin. Clitheroe Reef Knolls, which are partly situated within this Landscape Character Type, have been designated as a SSSI because they represent the classic site for the study of knoll-reefs in the Asbian Carboniferous Limestone of England.

Ecological

4.8.5 Within the Lowland Farmland with Parkland Landscape Character Type, hedges, hedgerow trees, flushes, fens, marshy grassland and small stream corridors provide important ecological habitats. In addition, Bell Sykes Meadow, to the north-east of Slaidburn is designated as a SSSI for its unimproved, enclosed, herb-rich grassland (which has been largely destroyed within Lancashire due to agricultural intensification).

Cultural and Historical

4.8.6 The landscape proved more favourable to early settlers than the nearby uplands. By the Roman period it is probable that much of this Landscape Character Type was already settled fairly densely and the fort established at Ribchester (outside the southern boundary of the AONB) is known to have had some civilian government functions. Whilst Roman remains (besides roads) outside the immediate area of the forts are poorly represented in the record, there is limited archaeological evidence of exploitation of the natural resources of the area. The majority of enclosure dates from the medieval period and has created a landscape of small fields which are mostly hedged although stone walls are evident where geology lies close to the surface.

4.8.7 Country houses are a feature of the area and are often surrounded by parklands and well managed estates. They are evidence of the developing industrial enterprise and increasing wealth between the 16th and 19th centuries. Architecturally distinctive yeoman and gentry houses are also characteristic of this type and date from the 17th century onwards. The country houses are often attractive buildings of historic interest, surrounded by formal parkland and well-managed estate land, which often has a high proportion of woodland, well-managed hedgerows and boundary walls or fences. Associated parkland often has with well-spaced open-grown trees of oak, sycamore, ash and lime. Not all parks and estates, however, contain large country houses.

Development, Settlement and Buildings

- This Landscape Character Type contains a mixture of scattered, isolated farmsteads, which display typical gritstone vernacular building materials and styles; and estate villages (such as Downham and Slaidburn) which contain buildings of a similar ages and design;
- Several large, ornate Country Houses are located within this Landscape Character Type, often associated with designed parkland landscapes, including, Cow Ark, Browsholme Hall, Stonyhurst College and Winckley Hall;
- Stonyhurst College is a dramatic and imposing landmark building (built in the Jesuit-style) and has a long driveway lined by avenues of trees with associated long formal ponds. The Stonyhurst estate is bounded by the River Hodder, the village of Hurst Green and Longridge Estate;
- Slaidburn is also an historic village and has buildings which date back to the 13th century;
- Within Downham, stone built cottages nestle around the church and are associated with mature deciduous vegetation;
- The small village of Hurst Green displays a combination of traditional gritstone and white painted terraced houses.

Landscape Character Areas

4.8.8 Landscape Character Areas within this Landscape Character Type include:

Landscape Character Area G1: Wyresdale

- Much of this area has a significant history of estate management, which is reflected in the landscape in the form of park woodlands and in field trees;
- Several of the hedgerows within this area comprised a mixture of beech and hawthorn;
- The Country House, associated lake and patches of mature deciduous woodland at Wyresdale Park are landscape features within the surrounding predominantly pastoral landscape;
- The profile of Nicky Nook provides the backdrop to views southwards and provides a setting for the lake at Wyresdale;
- The corridor of the M6 motorway introduces a source of noise and movement at the western edge of the area;
- Minor road corridors are often lined with deciduous trees;
- A network of tracks cross this area.

Landscape Character Area G2: Little Bowland

- Evidence of old deer park features at Leagram including, the park boundary (bank and ditch), sinuous belts of deciduous woodland, park gates and stiles;
- Park woodlands are shaped with drystone walls or fenced boundaries;
- The Duchy of Lancaster own parts of this area, which is reflected in the management of the landscape and the colours of gates and signs;
- Leagram Hall is a key landscape feature;
- Cheese press stones are visible features, occasionally situated along road corridors;
- Old lime kilns are also features of this landscape;
- A network of drystone walls delineate fields in the northern half, whilst mixed hedgerows with hedgerow trees are a feature of the southern half of the area;
- The gently undulating landscape is crossed by a series of narrow rural road corridors which are lined with a combination of stone walls, hedgerows and white railings;
- The small, nucleated village of Chipping encompasses a combination of traditional gritstone cottages and terraced houses;
- Dramatic, open views northwards towards the central Bowland fells, which provide a distant sense of enclosure;
- Mixed, ancient, semi-natural woodland, following watercourses, run northwest to southeast across the landscape;

- A history of utilisation of this area for water powered industry is visible at several sites within the landscape;
- In-field trees, including oak, alder and ash and landscape features;
- Limekilns and evidence of historic limestone quarrying is visible in the southern and eastern parts of the area;
- Activity associated with pheasant, partridge and duck shoots has an influence on this landscape.

Landscape Character Area G3: Upper Hodder

- Patches of mature deciduous trees line the corridor of the River Hodder, which meanders through this area and often has shallow, grassy banks;
- There is a long history of estate management throughout much of the area (including the Knowlmere and King Wilkinson Estates; and the recent development of the Meanley Estate at Easington);
- Patches of mixed woodland with sinuous edges contribute to a mature landscape structure, which provides an intermittent sense of enclosure within this landscape;
- Sense of enclosure provided by Browsholme Moor and Easington Fells to the south and a combination of the shale and limestone uplands and the grit moorland of the Bowland Fells;
- Single deciduous trees are landscape features along the corridor of the River Hodder;
- White stone walls, bridges and limestone built villages such as Slaidburn (often displaying white window frames and doors) situated in the valley bottom alongside the River Hodder and Newton, all contribute to recognisable sense of place;
- Park woodlands are a striking landscape feature, which exhibit oval shapes and are enclosed by drystone walls or fenced boundaries;
- The underlying limestone geology has an influence on the landscape in buildings and drystone wall materials;
- Limekilns, limestone quarries and stone field barns are recognisable landscape features;
- Remnant hedgerows delineate some field boundaries, several containing hedgerow trees (including ash, alder and hawthorn);
- Distinctive grassy limetone knolls which often have woodland or tree cover on the hilltops at Little Dunmow and Great Dunmow (known as reef knolls) are features within views across this landscape.

Landscape Character Area G4: Hurst Green

- The avenue of trees associated with Stonyhurst College is a key landscape feature of this area and channels views across the landscape (see Appendix H);
- Stonyhurst College is a key landmark within views across the parkland;
- Woodland clumps, often surrounded by intact stone walls also contribute to recognisable sense of place;
- Stonyhurst Park was once a larger area of ornamental parkland, but now houses a golf course which introduces a man-made character into the surrounding landscape;
- The dramatic rising mass of Longridge Fell contribute to recognisable sense of place;
- Framed views southwards across the wide valley corridor of the River Ribble.

Landscape Character Area G5: Downham

- Dramatic, open views southwards towards moorland on Pendle Hill;
- Open views northwards across the wide valley of the River Ribble;
- Patches of deciduous woodland and single mature deciduous field trees contribute to an intermittent sense of enclosure within views across this landscape;
- Patchwork of pasture fields lined with stone walls and mixed hedgerows and interspersed with mature deciduous hedgerow trees;
- Relatively tall, estate style, predominantly limestone, walls are also a feature, lining some of the minor road corridors; in other places, mixed hedgerows line road corridors.
- Traditional stone field barns are a feature in places (for example at the side of Twiston Lane);
- Lime kilns and quarries are also visible landscape features;
- Parkland features include estate walls and frequent copses on limestone reef knolls between Downham and Twiston;
- The linear estate village of Downham, with its strongly recognisable sense of place, resulting from the combination of stone buildings, bridges and church is a key feature within several views across this area.

Landscape Character Area G6: Sabden

- The relatively wide corridor of Sabden Brook which is lined by patches of mature woodland is a landscape feature;
- Sabden village, nestled at the foot of Pendle Hill, encompasses a combination of traditional buildings and more modern buildings;
- Views northwards are dominated by the dramatic backdrop of Pendle Hill with its distinctive profile;
- A network of hedgerows line field boundaries and drystone walls;
- Mature single deciduous trees are also a feature of this landscape which contribute to landscape pattern;
- B roads and minor road corridors which cross the area lined with a combination of stone walls and hedgerows;
- There is evidence of the industrial heritage of this area, including mills and terraces;
- Red painted gates are a key feature of farms on the Huntroyd Estate at Sabden.

Landscape Character Area G7: Browsholme

- Dramatic, open views northwards towards the central Bowland fells, which provide a distant sense of enclosure;
- The Duchy of Lancaster own part of this area, which is reflected in the management of the landscape and the colours of gates and signs;
- Park woodlands are shaped with drystone walls or fenced boundaries;
- Limestone, drystone walls are a feature of the northern half, whilst mixed hedgerows with hedgerow trees are a feature of the southern half of the area;
- Duchy metal field gates are recognisable landscape features;
- Browsholme Hall is a key landscape feature;
- On the Browsholme Estate, beech hedgerows and beech within woodlands contribute to recognisable sense of place;
- Relatively large blocks of coniferous and mixed woodland contribute to a varied sense of enclosure within this area;
- Mixed, ancient semi-natural woodland and strips/blocks of damp birch woodland, contribute to a mixed sense of enclosure;
- In-field trees, including oak, alder and ash are landscape features;
- Activity associated with pheasant, partridge and duck shoots has an influence on this landscape;

- The small hamlet of Cow Ark, the estate-owned small hamlet of Bashall Eves and a series of scattered, isolated farmsteads contribute to settlement pattern;
- A network of relatively narrow rural lanes, lined with stone walls, hedgerows and occasional white railings, crosses this landscape. Between Bashall Eves and north Waddington, narrow, sunken lanes are lined with mixed hedgerows (including holly) and trees.

Landscape Character Area G8: Dinkling Green - New Laund

- This area encompasses a distinctive pattern of grassy hills which punctuate the surrounding undulating farmland landscape and are underlain by limestone;
- Some of the slopes of the hills are cloaked in mature deciduous trees, contributing texture and variety to the landscape, in contrast with adjacent character areas;
- The pronounced limestone 'reef knolls' are visible landmarks within several views from adjacent landscape character areas;
- To the north and west, Totridge and Fair Oak fells provide a sense of enclosure, whilst the intimate corridor of the Upper Hodder valley provides the eastern edge;
- Gritstone field quarries are also a feature in the north-west of the area;
- There is a strong sense of remoteness and tranquillity throughout most of the area, despite the presence of a narrow rural road corridor which links the Hodder Valley to Leagram to the south.

CURRENT AND FUTURE LANDSCAPE CHANGES AND OPPORTUNITIES

Forces for Change

Past Landscape Changes

4.8.9 Observable changes in the past include:

- Conversion of deer parks to pastoral farmland;
- Loss of and decline in the number of associated parkland features;
- A decline in mature hedgerow trees as a result of age or loss due to agricultural intensification;
- Expansion of villages or modernisation of farmsteads utilising non-local building materials (e.g. red brick) which are intrusive to local vernacular character;
- Amalgamation and diversification of dairy farms;
- Intensification of agricultural management, involving chemical fertiliser and herbicide applications, which has affected herb-rich meadows.

Current Landscape Condition

4.8.10 The overall condition of the Undulating Farmland with Parkland Landscape Character Type is considered to be moderate. The condition of stone walls and hedgerows at field boundaries is considered to be generally good, however there is evidence of disrepair and gappy, overgrown and neglected hedges and overgrown tree/shrub lines in places, varying with land ownership. Parkland features are generally well maintained where they form part of areas of formal parkland, however there is evidence of loss or disrepair of parkland features, such as boundary walls, where the former parkland features form part of the wider landscape of undulating pastoral farmland. Some areas of parkland are also in fragmented ownership.

Future Landscape Changes and Opportunities

4.8.11 An overall consistency in the use of vernacular building materials within the estate and other villages within this Landscape Character Type indicates a local desire to retain the traditional character of the area.

4.8.12 Negative changes may include the amalgamation of farms, leading to a change in the character of the landscape, with new access tracks and the creation of larger fields leading to a loss of traditional stone wall and hedgerow field boundaries. This may lead to a loss of traditional former parkland boundary features (such as banks and ditches with either hedges or walls on top). Amalgamation of farms may also result in farmhouses and associated buildings being converted to new uses and key landscape features being lost through neglect or removal to enable the amalgamation of adjacent fields. Conversion of historic buildings may also be an

issue. The increased farm size may lead to the demand for new agricultural buildings, affecting character and views. Increased financial pressures and reduced availability of higher level agri-environment payments, may lead to field boundaries, walls and hedges suffering from a lack of management.

4.8.13 Longer-term changes (20+ years) will be dependent on prevailing incentives and policies and it is therefore challenging to be prescriptive. The AONB Management Plan will provide a key tool in managing change and ensuring a positive future for the area. Potential longer-term changes and key guidelines within this Landscape Character Type are outlined below:

- *Agricultural Change and Land Management* – The amalgamation of farms and increased drive for efficient farm businesses or farms being sold as farmers and their families leave the industry; all have a direct impact on how the land is managed. As the key characteristics of the area are significantly influenced by agricultural practices, change in the industry could lead to an erosion of landscape quality. Changes in land ownership or agricultural management may also lead to fragmentation of ownership of areas of parkland, which could jeopardise the coherent future management of parkland features.

- *Climate Change* – The likely effects of climate change on this landscape are not easily identifiable with current information, however, agricultural practices could be affected, with a move to plough up pasture and plant new crops. Climate change may have a variety of potential impacts on the designed landscape (a key feature within this Landscape Character Type) and retaining the historical integrity of some landscapes may be difficult to achieve over the long term. Mature parkland trees could also be lost with a change in temperatures and average rainfall levels.

- *Development* – Diversification of farm businesses leading to introduction of new buildings and the conversion of farm buildings for residential and other uses could gradually change the nature of the working landscape and its associated attributes. The erosion and loss of vernacular building styles within estate villages or country house estates, through introduction of cheaper alternatives will reduce the distinctive characteristics of this area. Encroachment of large scale development such as wind farms, masts and pylons into the area would also have a significant effect on landscape character. It is likely that there will also be increased pressure from residential and tourist related developments, affecting the character and quality of the landscape.

Sensitivities and Capacity for Change

4.8.14 The ecological sensitivity of this Landscape Character Type is represented by the combination of hedges, hedgerow trees, mature woodland and stream corridors. There is strong historic and cultural sensitivity resulting from the numerous built and natural parkland features and country houses. In addition, the landscape displays a mature structure of hedgerows and hedgerow trees. Overall, landscape character and visual sensitivity is considered to be moderate. In places, woodland and hedgerows limit views, whilst there is strong intervisibility with the Unenclosed and Enclosed Moorland Hills, Valley Floodplain and Moorland Plateaux Landscape Character Types.

GUIDELINES FOR MANAGING LANDSCAPE CHANGE

4.8.15 The overall strategy for the Undulating Lowland Farmland with Parkland Landscape Character Type is to conserve and enhance existing and former built and natural parkland features; and the network of stone walls and hedgerows. Patches of mature deciduous woodland and single parkland trees within fields and lining river and brook corridors should also be conserved. Where landscape features have been neglected (including former boundary features such as beech and holly trees and original park gates), opportunities should be sought for restoration. The parkland settings, e.g. the relationship between settlement and the rest of the landscape should be maintained. There is also a need for conservation of the lane features such as stone walls, roadside verges, hedgerows and hedgerow trees. Open views towards the Unenclosed and Enclosed Moorland Hills, Moorland Plateaux and Valley Flood plains Landscape Character Types should be conserved.

4.8.16 Specific guidelines include:

Physical Character

- **Conserve** and **enhance** woodland, hedges and stone walls.

Ecological Character

- **Link** existing woodlands and hedgerows to create a continuous woodland network to reverse habitat fragmentation[48];
- **Create** new hedgerows and regenerate existing hedges to maintain and enhance key landscape linkages[49];
- **Encourage** farmers to adopt less intensive farming practices so that the vitality of existing woodlands is not compromised and to facilitate natural regeneration in and around woodland habitats[50];

[48] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission and TEP.
[49] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission and TEP.

- **Ensure** the long-term viability of parkland trees and landscapes by restructuring, using species of local provenance wherever possible[51];
- **Encourage** conservation of existing key landscape features and habitats;
- **Encourage** habitat linkage to increase robustness to climate change;
- **Conserve** the water quality of streams and becks and **limit** run off or pollution from adjacent pastoral farmland;
- **Target** agri-environment scheme support for management of parkland landscapes;
- **Ensure** that UK Biodiversity Action Plan habitats are appropriately managed.

Cultural and Historic Character

- **Protect** unlisted buildings and structures related to ornamental land;
- **Encourage** public access, appreciation and understanding of ornamental landscapes and their component features;
- **Avoid** loss of integrity by division into multiple ownership, of through inappropriate changes of use;
- **Encourage** management regimes that foster joint-working whilst protecting the key ornamental attributes, such as parkland trees through Tree Preservation Orders or parkland structures through listing or scheduling, where ornamental landscapes are in multiple ownership;
- **Conserve** relict archaeological remains;
- **Enhance** former parkland features, whether functional (deer leaps, icehouses, lodges), semi-natural (woodland shelterbelts, planted avenues, specimen trees, lakes) or ornamental (follies, eye-catchers), particularly where they add group value by association within one another;
- **Conserve** significant historic features and buildings;
- **Encourage** sympathetic new uses for disused farm buildings to ensure that they remain a viable and contributory feature within this landscape; and;
- **Encourage** the use of local building materials, in particular gritstone and limestone;
- **Encourage** owners of designed landscapes, which are not eligible for agri-environment schemes to restore and maintain the integrity of the planting for the future, especially planning for the replacement of specimen trees, and to consider the effects of climate change in so doing;
- **Continue** the management of parkland, including planting of parkland trees;
- **Ensure** that highway improvement schemes respect and reflect local character and **encourage** the use of traditional signage where possible;
- **Conserve** other roadside features such as stone/metal boundary stones and wells;
- **Restore** walls, hedgerows and white railings.

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[50] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission and TEP
[51] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission and TEP

Aesthetic and Perceptual Character

- **Conserve** open views towards the surrounding higher Moorland Plateaux and Unenclosed and Enclosed Moorland Hills Landscape Character Types;
- **Conserve** open and framed views across and into the corridors of the River Ribble;
- **Maintain** the distinctive pattern of hedgerows and stone walls at field boundaries.

LANDSCAPE CHARACTER TYPE H: UNDULATING LOWLAND FARMLAND WITH SETTLEMENT AND INDUSTRY

Key Characteristics

1. Gently undulating farmland, divided by a network of drystone walls and hedgerows.

2. Towns and some heavy industrial sites which are associated with main transport corridors.

3. Backdrop of Moorland Hills provides a sense of enclosure and contributes to recognisabe sense of place within views.

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4.9 H: UNDULATING LOWLAND FARMLAND WITH SETTLEMENT AND INDUSTRY

CHARACTER ASSESSMENT

Location

4.9.1 The Undulating Lowland Farmland with Settlement and Industry Landscape Character Type occurs in three locations in the southern part of the Study Area. This Landscape Character Type is generally located adjacent to other lowland LCT's, and is bordered along its northern edge by the Valley Floodplain Landscape Character Type.

Landscape Character Description

4.9.2 Undulating Lowland Farmland with Settlement and Industry Landscape Character Type generally occurs below 150m within the Study Area (outside the boundaries of the AONB). It encompasses a patchwork of pastoral fields that are punctuated by main transport corridors and relatively large urban areas (including Clitheroe and Whalley). This landscape is generally viewed against either the backdrop of Moorland Hills (looking northwards) or Pendle Hill (looking southwards).

4.9.3 The pastoral fields are enclosed by an intricate network of hedgerows, which often contain hedgerow trees and provide texture to the landscape; and post and wire fences. These fields surround the towns of Clitheroe and Whalley, providing the setting for a combination of Victorian and later buildings within the built up areas. A number of major road corridors and a main railway line also dissect this Landscape Character Type, disturbing the overall sense of tranquillity and remoteness.

4.9.4 Pockets of industry including tarmac works, cement works and industrial estates also punctuate the surrounding pastoral landscape. The scale and form of these buildings provides a strong visual contrast with the buildings and settlement patterns of adjacent Landscape Character Types.

Key Environmental Features

Physical

4.9.5 Similarly to the Undulating Lowland Farmland Landscape Character Type (E), this LCT generally occurs below 150m and is underlain by a combination of soft glacial tills which separate the higher fells of Bowland to the north (formed from Millstone Grit) from Pendle Hill to the south. At Clitheroe, these are quarried for rock and used in cement manufacture. Where these deposits are located close to the surface, they are visible within the landscape in the form

of small, isolated hills or reef knolls, such as at Worston at the western edge of Pendle Hill. In its lowland position adjacent to the relatively wide meandering course of the River Ribble, this Landscape Character Type has flat to gently undulating topography. Within this landscape, Coplow, Salthill and Bellmanpark quarries have been designated as SSSI for their geological interest.

Ecological

4.9.6 Within the Lowland Farmland with Settlement and Industry Landscape Character Type the key ecological habitats include small stream corridors, hedges and hedgerow trees. Intensive farming practices, interspersed with industrial and urban land uses, however, limit the nature conservation value of this area.

Cultural and Historical

4.9.7 The landscape proved much more favourable to early settlers than the nearby uplands to the north and south, probably due to its position adjacent to the corridor of the main River Ribble. By the Roman period it is probable that much of this Landscape Character Type was already settled fairly densely and the fort established at Ribchester (outside the southern boundary of the AONB) is known to have had some civilian government functions. The origins of urban settlement in this landscape date to the 12th Century, when the market town of Clitheroe received its first charter in 1114. Similarly, settlement is known to have existed in Whalley to the south, in 1296, when an Abbey was founded. Clitheroe is dominated by a partially ruined Norman castle (situated on a limestone crag above the town). Despite modern expansion, the town retains much of its historic character, encompassing a winding main street which is lined in places by white fronted Georgian houses. The majority of enclosure within this type dates from the medieval period and has created a landscape of small fields which are mostly hedged although stone walls are evident where geology lies close to the surface. In the middle of the 18th century, rapid changes in the large-scale application of technology resulted in a move towards an industrialised society. To the east and of Clitheroe and west of Chatburn, limestone quarries, (associated with rich surface geological deposits) became prosperous and are still in operation today, providing local employment and introducing industrial features into the landscape.

Development, Settlement and Buildings

- Settlement pattern is dominated by the large towns of Clitheroe (containing a mixture of historic and more modern houses, shops, hospitals and schools) and Whalley to the south;
- Houses within these towns are often terraced and display a range of local building materials including limestone and gritstone;
- To the north of the area the large village of Chatburn, once a mill village associated with the cotton industry, contains rows of terraced stone cottages;

- Outside these towns and villages, settlement pattern consists of occasional, scattered, isolated farmsteads;
- Clitheroe Caste is a key landmark buildings within views across this landscape;
- The imposing Hall at Standen (erected in the 15th century and rebuilt in 1757) is also a key built feature within the landscape;
- Modern industrial buildings and chimneys associated with cement workings and tarmac works introduce a dominant human element within this landscape and are visible within most views across the Landscape Character Type.

Landscape Character Areas

4.9.8 Landscape Character Areas within this Landscape Character Type include:

Landscape Character Area H1: Clitheroe and Chatburn

- Landscape pattern within this Landscape Character Area is dominated by the large town of Clitheroe, which is situated at the convergence of major road and railway corridors;
- These corridors introduce a source of noise and visual intrusion and disturb the overall sense of tranquillity;
- Clitheroe contains an assortment of housing (much of which is terraced and built from local stone) and commercial buildings;
- The tower of Clitheroe Castle (situated on a limestone outcrop above the town) is a landmark within views towards this area;
- At the eastern edge of the area, the small village of Chatburn, with its rows of terraced cottages, further contributes to settlement pattern;
- Large-scale quarries and associated works (including tall vertical chimneys) to the east of Clitheroe and west of Chatburn are a dominant human influence within views to this landscape from surrounding Landscape Character Types and Areas;
- Views northwards, across the corridor of the River Ribble are dominated by the rising mass of the central Moorland Hills and Plateau, whilst Pendle Hill contributes to recognisable sense of place within views southwards;
- At the edges of the urban development, patchworks of predominantly pastoral fields are delineated by, in places remnant, hedgerows, with frequent hedgerow trees.

Landscape Character Area H2: Higher and Lower Standen

- This relatively small landscape character area encompasses a intact patchwork of predominantly pastoral fields, which are interspersed with small patches of mixed woodland;
- This woodland, alongside hedgerows at field boundaries contributes to an intermittent sense of enclosure throughout the area;
- Overall sense of tranquillity is disturbed as a result of traffic on the A671 and A59 main road corridors;
- To the west, dramatic open views across the Ribble Valley contribute to recognisable sense of place, whilst to the east, views to Pendle Hill provide orientation;
- From the northern edge of the area, the urban edge of Clitheroe is clearly visible within views northwards.

Landscape Character Area H3: Barrow and Whalley

- Overall sense of tranquillity within this area is disturbed by the main road and railway corridors that cross the landscape;
- At the southern edge of the area, the town of Whalley (within its pattern of stone terraced houses) exerts a human influence over the landscape;
- In addition to this, the golf course to the north of Whalley, introduces a further human element;
- The small linear village of Barrow further contributes to settlement pattern;
- To the west, open views across the gently meandering course of the River Ribble contribute to recognisable sense of place, whilst the rising mass of Pendle Hill to the east provides orientation;
- To the west of Whalley, the viaduct is a key landscape feature, whilst to the east of the town, the relatively large expanse of woodland within Spring Wood provides a sense of enclosure;
- Outside the settlements, a gently undulating patchwork of pastoral fields is lined with hedgerows, which provide a sense of enclosure.

CURRENT AND FUTURE LANDSCAPE CHANGES AND OPPORTUNITIES

Forces for Change

Past Landscape Changes

4.9.9 Observable changes in the past include:

- An expansion of historic settlements, both during the Industrial Revolution, when stone industrial buildings and terraced houses were introduced and Post-War, including infill and edge developments, which have tended to suburbanise the surrounding farmland;
- The introduction of main road corridors (often dual carriageways) and railway line, which has resulted in loss of tranquillity and associated sense of remoteness;
- Upgrading and standardisation of minor rural roads to allow for the volume of traffic associated with the settlements and industry, which has resulted in a loss of species-rich roadside verges and the introduction of signage and lighting;
- Quarrying of the landscape has resulted in spoil heaps and areas of reclaimed land (parts of which now support unique ecological habitats);
- A decline in mature hedgerow trees as a result of age or loss due to agricultural intensification;
- Expansion of villages or modernisation of farmsteads utilising non-local building materials (e.g. red brick) which are intrusive to local vernacular character;
- Amalgamation and diversification of dairy farms;
- Intensification of agricultural management, involving chemical fertiliser and herbicide applications, which has affected herb-rich meadows;

Current Landscape Condition

4.9.10 The overall condition of the Undulating Lowland Farmland with Settlement and Industry Landscape Character Type is considered to be moderate. Most landscape features are generally well managed. Patches of unmanaged hedgerows are, however, visible and there is also evidence of over-mature hedgerow trees.

Future Landscape Changes and Opportunities

4.9.11 In the short-term, negative changes within this Landscape Character Type are likely to include further pressure for the expansion of urban areas (including lighting, access roads and footpaths) which would have a suburbanising influence on the surrounding predominantly rural landscape. There is also likely to be pressure for development of industrial uses, including out of town business parks and leisure developments. Linked to this, three is likely to be pressure to widen main road corridors and standardise minor rural road corridors.

Increased financial pressures and reduced availability of higher level agri-environment payments, may lead to field boundaries, walls and hedges suffering from a lack of management.

4.9.12 Longer-term changes (20+ years) will be dependent on prevailing incentives and policies and it is therefore challenging to be prescriptive. The AONB Management Plan will provide a key tool in managing change and ensuring a positive future for the area. Potential longer-term changes and key guidelines within this Landscape Character Type are outlined below:

- *Agricultural Change and Land Management* –Changes in land ownership or agricultural management may also lead to a decline in the management of hedgerows and hedgerow trees.

- *Climate Change* – The likely effects of climate change on this landscape are not easily identifiable with current information, however, agricultural practices could be affected, with a move to plough up pasture and plant new crops. This Landscape Character Type is situated adjacent to the corridor of the River Ribble and therefore, could be affected by a risk of increased flooding if temperatures rise.

- *Development* – There is likely to be pressure for expansion of the main towns of Clitheroe and Whalley, as the demand for housing increases. Associated with this, the widening of main road corridors would have an impact on landscape character within this area. The dereliction of former industrial sites as these cease operation could lead to a loss of heritage features; however, there is also an opportunity to create new landscape by their restoration. The erosion and loss of vernacular building styles through introduction of cheaper alternatives will reduce the distinctive characteristics of this area. It is also likely that there will be increased pressure from tourist related developments, as a result of the proximity of this landscape to the edges of the AONB, affecting the character and quality.

Sensitivities and Capacity for Change

4.9.13 The ecological sensitivity of this Landscape Character Type is represented by the combination of hedges, hedgerow trees and diverse narrow stream corridors. There is also a rich built heritage within the main towns and villages. In addition, the landscape displays a mature structure of hedgerows and hedgerow trees. Overall, landscape character and visual sensitivity is considered to be moderate. In places, hedgerows limit views, whilst there is strong intervisibility with the Unenclosed and Enclosed Moorland Hills, which provide a backdrop to most views from this lower landscape. Industrial chimneys and other industrial buildings at the

edges of Clitheroe are also visible within most views to this Landscape Character Type from adjacent Landscape Character Types and Areas within the AONB.

GUIDELINES FOR MANAGING LANDSCAPE CHANGE

4.9.14 The overall strategy for the Undulating Lowland Farmland with Settlement and Industry Landscape Character Type is to conserve and enhance the network of mature hedgerows and hedgerow trees that contribute to the distinctive landscape pattern. The retention and restoration of historic and vernacular building materials and details, and the careful design of new buildings should also be encouraged. Where landscape features have been neglected, opportunities should be sought for restoration. There is also a need to ensure that potential new development at the edges of urban areas, utilises local vernacular limestone and gritstone and includes a robust planting structure of native tree and shrub species, particularly at the edges. Opportunities also exist to screen existing urban edges using native trees and shrubs. Open views towards the Unenclosed and Enclosed moorland hills Landscape Character Types, and framed views across the River Ribble should also be conserved.

4.9.15 Specific guidelines include:

Physical Character

- **Conserve** and **enhance** hedges and hedgerow trees.

Ecological Character

- **Conserve** and **enhance** herb-rich stream banks;
- **Create** new hedgerows and regenerate existing hedges to maintain and enhance key landscape linkages[52];
- **Encourage** farmers to adopt less intensive farming practices so that the vitality of existing woodlands is not compromised and to facilitate natural regeneration in and around woodland habitats[53];
- **Encourage** conservation of existing key landscape features and habitats;
- **Encourage** habitat linkage to increase robustness to climate change.
- **Conserve** the water quality of streams and becks and **limit** run off or pollution from adjacent pastoral farmland;
- **Ensure** that UK Biodiversity Action Plan habitats are appropriately managed;
- **Restore** semi-natural habitats;
- **Discourage** intensive agricultural practices, such as drainage and fertilisation, in areas with species-rich grasslands, hay and wet meadows;

[52] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission and TEP.
[53] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission and TEP

- **Seek** opportunities to restore abandoned quarries, ensuring that their nature conservation interest is retained.

Cultural and Historic Character

- **Encourage** conservation of significant historic features and buildings of industrial and other heritage;
- **Ensure** that any potential new urban development includes a robust planting of native tree and shrub planting at the edges;
- **Encourage** sympathetic new uses for disused farm buildings to ensure that they remain a viable and contributory feature within this landscape; and;
- **Encourage** the use of local building materials, in particular gritstone and limestone;
- **Ensure** that highway improvement schemes respect and reflect local character and **encourage** the use of traditional signage where possible;
- **Ensure** new development does not extend onto prominent hillsides;
- **Maintain** consistency of building materials, details and design;
- **Conserve** the pattern and distinctive settings to settlements;
- **Give** careful consideration to the siting and design of car parks and visitor facilities, which should be well screened by trees and woodlands.

Aesthetic and Perceptual Character

- **Conserve** open views towards the surrounding higher Moorland Plateaux and Unenclosed and Enclosed Moorland Hills Landscape Character Types;
- **Conserve** open and framed views across and into the corridor of the River Ribble;
- **Maintain** the distinctive pattern of hedgerows at field boundaries.

LANDSCAPE CHARACTER TYPE I: WOODED RURAL VALLEYS

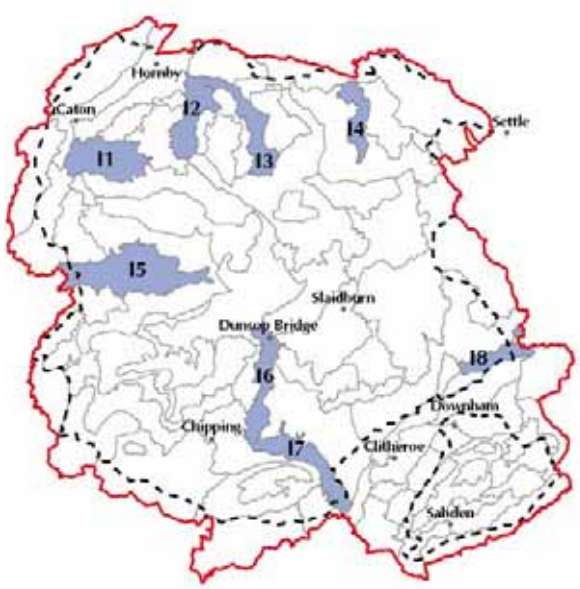
Key Characteristics

1. Undulating lanes dip into and out of the valleys.

2. Deeply incised, wooded cloughs create a strong pattern.

3. Local areas of landslip on the steep valley sides create a distinctive hummocky local topography.

4. Strong sense of enclosure.



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I: WOODED RURAL VALLEYS

CHARACTER ASSESSMENT

Location

4.9.16 The Wooded Rural Valleys Landscape Character Type occurs in eight different locations throughout the Study Area. In the north of the AONB, the edges of this LCT are generally bordered by a combination of Unenclosed (B) and Enclosed Moorland Hills (C) or Moorland Fringe (D) Landscape Character Types. To the south, however, the Wooded Rural Valleys cut through Undulating Lowland Farmland (E) or Undulating Farmland with parkland (G) Landscape Character Types.

Landscape Character Description

4.9.17 These deeply incised wooded valleys link upland and lowland Bowland, creating a strong pattern of linear landscapes, which radiate out from the central fells. Formed by the action of fast flowing water the valleys cut through a mixture of gritstone, shales and silt. The steep valley sides are cloaked in woodland, the only space for farming being confined to the slopes above the trees, or in the damp valley bottoms where you will find small herb rich pastures and meadows. Waterfalls, gorges, mill lodges and historic mill sites are strung along the course of the brooks and rivers, but the woods are largely uninhabited. Settlements (small hamlets and isolated farms) are generally above the tree line, or at a confluence of rivers such as at Wray or Dunsop Bridge; and undulating lanes dip into and out of the valleys, crossing the watercourses with narrow packhorse bridges or fords.

4.9.18 The valleys have a strong sense of enclosure and remoteness, which creates a contrast with the surrounding Unenclosed and Enclosed Moorland Hills and Moorland Fringe.

Key Environmental Features

Physical

4.9.19 The Wooded Rural Valleys cut through hard Millstone Grit and radiate out from the central upland core of the Bowland landscape. Some of the valley sides expose sections of the layers of the underlying geology which includes sandstone, shale and silt. The deeply incised, narrow valleys were formed by fast flowing streams and glacial meltwaters. Local areas of landslip are common on the steep valley sides and create a distinctive hummocky local topography. As the streams cut through sequential layers of Millstone Grit they have created a landform of stepped terraces on the harder geology and steep drops where the softer shales have been eroded away. Part of the Hodder River Valley (Hodder River Section) has been designated as a SSSI for its exposures of Lower Carboniferous rocks. As well as being the type

locality for these beds and the fossil which gives them their name, it is the type locality for a number of other fossil taxa. The rich invertebrate fauna includes trilobites, bivalves, brachipods, bryozoans, echinoids and cephalopods.

Ecological

4.9.20 The valleys contain substantial areas of ancient woodland which survive as remnants of larger woods cleared for agriculture or habitation. These range from the base rich ash woodlands or alder/willow fringing the streams, to upland oak woodland along elevated parts of the valley sides. Remnant areas of wet meadow along the valley floor are also of considerable interest. This is a shady, humid environment in which ferns, mosses and other specialised plants thrive. These valleys support characteristic riparian birds such as grey wagtail, dipper and common sandpiper. Within the Wooded Rural Valleys Landscape Character Type, there are several sites which have been designated as SSSI to reflect their ecological importance.

4.9.21 Artle Dale, a wooded gorge of Artle Beck (to the east of Lancaster) is of importance, as one of the two or three best valleys in Lancashire, for its bryophyte (moss and liverwort) communities, with over 160 species having been recorded. Of particular interest are excellent examples of base-enriched cliff, streamside gorge and Atlantic woodland communities, the latter rare in Lancashire, all of which include species which are scarce in the county. In addition, Far Holme Meadow, in the valley of the River Hindburn has been designated for its herb-rich neutral grassland, in which over 80 species of plants have been recorded. Keasden Moor is of special interest for its rare marsh gentian (*Gentiana pneumonanthe)* which is a nationally rare species. Marsh gentian is typically associated with relatively open areas of wet heathland dominated by heather *Calluna vulgaris* and bog moss *Sphagnum* spp. Patches of this habitat occur here on gently sloping moorland amongst a mosaic of acidic and marshy grassland. Tarnbrook Meadows, at the head of the valley of Tarnbrook Wyre, is the only known example in the county of a series of adjacent species-with meadow grasslands.

Cultural and Historical

4.9.22 There is less obvious evidence of human activity in the Wooded Rural Valleys as farms are generally located above the level of the main wooded areas, however the woods are interspersed with rough pasture and narrow riverside meadows. The stone bridges, which often represent ancient crossing points are an interesting feature of the valleys. The presence of charcoal hearths suggest a past history of woodland management. The swift streams provided water power for early industrial activity and occasional historic mill sites remain on the valley floors, include traces of mill ponds, races, sluices and weirs. The remaining mill buildings are good examples of the local vernacular and have often been converted into private residences. Herb-rich flower meadows have fast disappeared since the last war from these valleys due to intensive farming practices. Only a few now remain.

Development, Settlement and Buildings

- A predominant settlement pattern of scattered, isolated farmsteads, which are often constructed from local stone;
- The deserted church at Littledale is a key landscape feature;
- Traditional stone field barns are a feature of the landscape in places;
- Occasional nucleated villages situated in close proximity to river corridors (for example, Wray) exhibit predominantly traditional stone building styles and details within terraced cottages and houses;
- Stone mills and bridges are a testament to the historic use of the rivers for harnessing power; these areas were also managed to supply charcoal and wood for the bobbin mills.

Landscape Character Areas

4.9.23 Landscape Character Areas within this Landscape Character Type include:

Landscape Character Area I1: Littledale

- Meandering, narrow corridor of Artle Beck, containing fast-flowing water which tumbles over rocks and boulders on the river bed;
- Very broad and steep sided river valley with associated large blocks of ancient, semi-natural woodland and managed broadleaved woodland;
- There is a long history of estate management for a large part of this area, including Gresgarth, Littledale Hall and Abbeystead;
- Strong sense of enclosure provided by linear belts of mature deciduous and mixed woodland, almost continuously lining both sides of the beck;
- Small pockets of carr woodland are also a feature;
- Series of relatively narrow, traditional stone bridges cross the river corridor;
- Panoramic, open views northwards towards Morecambe Bay and Black Combe (Lake District) from the higher points along the southern slopes of the river valley;
- In close proximity to Artle Beck, views are channelled along the river corridor;
- Open views from the northern valley slopes towards Caton Moor to the north, with the windfarm a visible feature on the horizon;
- Narrow road corridors and field boundaries are lined with a combination of stone walls and hedgerows;

- Landscape pattern of small to medium sized, regular pastoral fields, often delineated by drystone walls;
- Taller, gritstone walls are a features of the Gresgarth Estate (at Hawkeshead Farm and Intack House);
- A network of walled tracks cross the western half of this area;
- Park woodlands are generally oval in shape and enclosed by drystone walls or fenced boundaries;
- Gresgarth Hall (whilst in current ownership) has been developed as a formal parkland landscape, including gardens, new beech hedgerows, metal railings, entrance gates and newly planted formal trees;
- Beech hedgerows are a feature in places;
- Field barns, such as Skelbow Barn to the east of Littledale are also key landmarks within views across the landscape from the valley sides.

Landscape Character Area I2: Roeburndale

- Steep-sided river valley, with ancient semi-natural woodland along the river and stream banks and associated species-rich damp/wet meadows and pastures;
- Strong sense of enclosure within the valley provided by the Unenclosed Moorland Hills of Goodber Common to the east and the Enclosed Moorland Hills at the eastern end of Caton Moor;
- An associated strong sense of remoteness and tranquillity;
- This area forms an integral part of the distinctive traditional farming pattern of the area. The fields on the eastern side of the valley start at the river and spread through Moorland Fringe landscape and onto Goodber Common. Those on the west side of the valley start at the river and spread through to Whit Moor Common and onto Haylot Fell in a similar way;
- The course of the River Roeburn is lined with dense belts of deciduous woodland, which demarcate its path within views from surrounding higher landscapes;
- Water within the river, trickles over large, smooth boulders and smaller pebbles along the river bed, which contributes to a diverse pattern along the river corridor and introduces a source of noise and movement;
- Within views southwards along the valley from the narrow road which follows the western bank of the river corridor, Mallowdale Fell provides enclosure and is visible as the skyline backdrop, contributing to recognisable sense of place;
- The Roman Road crossing Salter Fell is a key visible feature within views to Mallowdale Fell from the southern end of the valley;

- A relatively small-scale patchwork of pastoral fields line the valley floor, delineated by an intact network of low stone walls; mosaics of grassland and hey meadows are also a feature;
- Mixed hedgerows with hedgerow trees also delineate field boundaries and mixed, ancient semi-natural woodland is also a feature;
- Field barns contribute to recognisable sense of place;
- Two minor, dead-end roads lead into the valley and there is no access (other than by foot) from the southern end of the valley, further contributing to the overall sense of isolation and remoteness within this area;
- Mature, single deciduous trees along road corridors (which are often lined with stone walls) are also a feature of this landscape;
- The small, nucleated village of Wray, at the northern end of the valley, encompasses rows of traditional stone terraced houses;
- Where the narrow road corridors cross the river stone packhorse bridges are a key landscape feature;
- This area has a history of iron smelting, stone quarrying (with extensive quarries at Backsbottom Farm) and coppice activity in woodlands (for example in Hindburndale);
- Patches of ancient woodland, waterfalls, weirs and fords are all features of the landscape;
- Adjacent to the River Roeburn, where the un-gated road crosses the river, between Haylot and Lower Salter, a distinctive area of open land, surrounded by steep broadleaved woodland, provides a habitat for oystercatchers and woodpeckers;
- The banks of the fast flowing rivers contain evidence of former water powered mill sites.

Landscape Character Area I3: Hindburndale

- The Hindburn valley is steep sided, with a series of associated stream side valleys forking into the main valley;
- A strong sense of remoteness, isolation and tranquillity within the valley corridor, resulting from lack of access (other than by foot) to the valley from the south and the enclosing ring of Moorland Hills;
- Two minor roads follow the course of the river, lined with thick stone walls and mature deciduous trees in places;
- Sinuous belts of mature deciduous ancient, semi-natural woodland lines the river and stream corridors, providing a strong sense of enclosure, with associated species-rich, small damp/wet meadows and pastures;
- This area forms an integral part of a distinctive traditional farming pattern, which is linked to Goodber Common (Landscape Character Area B9);
- Traditional stone field barns, such as that at Over Houses are a feature of the landscape;
- Framed views northwards towards the peaks of the Yorkshire Dales (including Ingleborough);
- The small-scale field pattern (including in-bye land and a patchwork of small, irregular fields) is delineated by a series of low stone walls and mixed hedgerows with hedgerow trees;
- Mosaics of grassland and hay meadows are also a feature;
- Where the narrow, often winding road corridors cross the river stone packhorse bridges are a key landscape feature;
- Patches of ancient woodland, waterfalls, weirs and fords are all features of the landscape;
- The banks of the fast flowing rivers contain evidence of former water powered mill sites;
- Settlement pattern includes Lowgill hamlet, several farmsteads and an associated network of narrow lanes;
- This area has a history of iron smelting; and coppice activity in woodlands.

Landscape Character Area I4: Keasden

- The narrow corridor of Keasden Beck is lined with linear belts of predominantly deciduous woodland;
- A strong sense of remoteness, isolation and tranquillity within the river corridor, due to the absence of roads or footpaths;
- Hollin Lane, a narrow lane which crosses the northern end of the valley, is lined with limestone walls;
- From the northern end of the valley, open views northwards towards the peak of Ingleborough within the Yorkshire Dales, contribute to recognisable sense of place;
- Burn Moor Fell encloses the valley to the west and provides a dramatic skyline backdrop to views westwards. Here, there is a strong contrast between the smooth texture of the Moorland Hills and the more textured landscape of the valley with its mosaic of woodland and pastoral fields.

Landscape Character Area I5: Over Wyresdale

- A very broad wooded valley, where woodland is a dominant feature of the landscape. The original native broadleaved woodland is now largely mixed and extends well beyong the main river valley;
- The east-west flowing corridor of the River Wyre, is lined by sinuous belts of deciduous woodland which provide a strong sense of enclosure;
- This area has a long history of estate management, including parts of the Abbeystead and Duchy of Lancaster estates;
- Pockets of estate and designed landscapes are dotted along the river corridor (for example at Abbeystead shooting lodge);
- The area includes Abbeystead (estate-owned) and Dolphinholme villages, the traditional remote hamlet of Tarnbrook and several farmsteads and a associated network of lanes;
- The river has a braided pattern at Marshaw Wyre, where the flat, relatively wide floodplain is speckled with individual deciduous and coniferous trees and patches of linear mixed woodland. The water here is fast flowing as it cascades down weirs and across boulders in the river bed;
- Beech trees are also a feature of this area in places;
- Stone field barns are also occasional features along the valley corridor;
- To the south of the valley, Hawthornthwaite Fell provides a sense of enclosure and forms the backdrop to views;
- Varying different styles of bridges (including wooden and stone materials) cross the river corridor;
- The area includes pockets of in-bye and Moorland Fringe farmland;
- A network of gritstone, drystone walls delineate fields and road corridors, built from rough hewn blocks, often with two rows of through stones;
- A network of beech, holly and hawthorn hedgerows often line road corridors (many of which have been recently restored);

- Large, open fields encompass a mixture of improved and less improved rushy pastures;
- This landscape provides sites for nesting waders (for example at Lainsley Slack and Catshaw);
- At Marshaw /Tower Lodge, along the River Wyre corridor, an open canopy of Scot's pine, oak and beech trees surround an informal picnic area; and similarly at Carn Brow, an informal picnic area is situated on an open road next to the stream;
- Abbeystead Reservoir is a feature within several views across this area of landscape;
- To the south of Ortner, less traditional materials are visible in the form of modern metal gates and pipelines associated with the water extraction industry;
- A series of open lakes (resulting from gravel extraction) has produced a unique mosaic of open water and woodland which, contrasts with the surrounding predominantly natural environment.

Landscape Character Area I6: Upper Hodder

- This area encompasses a unique, but steep wooded valley with extensive cover of mixed woodland;
- The meandering course of the upper reaches of the River Hodder is lined by belts of sinuous mixed woodland, with wet pastures adjacent to the river;
- The area is estate owned (Duchy of Lancaster) and has a long history of estate management for pheasant shooting;
- Duchy of Lancaster metal field gates are landscape features;
- A narrow, rural road follows the course of the river, which has steeply incised valley sides;
- The river corridor meanders through surrounding parkland landscape;
- The historic Inn at Whitewell is a key feature within the landscape which contributes to recognisable sense of place, overlooking the valley bottom;
- Mature, single deciduous trees are a feature of the valley bottom;
- Framed views northwards towards the central core of Moorland Hills and Moorland Plateaux;
- The stepping stones across the river at Whitewell are a distinctive and recognisable landscape feature;
- The distinctive stone arches of Burholme Bridge, crossing the River Hodder are a key landmark feature within views across this landscape;
- The small village of Dunsop Bridge, consisting of a few houses (built for forestry and water board employees) and a few farm buildings is nestled amongst the fells at the northern end of the river valley (and is largely owned by the Duchy of Lancaster);

- Farms and houses within this area are mostly owned by United Utilities or the Duchy of Lancaster Estate;
- A well-used road runs along the upper western slope of the valley;
- Water extraction 'furniture' is visible within the landscape in certain locations;
- Farmed land is confined to the edges of the river valley, above the level of the wooded valley sides; pastures are sheep grazed and divided by gritstone walls.

Landscape Character Area I7: Lower Hodder

- The meandering corridor of the lower reaches of the River Hodder are contained by the surrounding limestone knolls;
- The area encompasses a very broad river valley and includes estate-owned and managed farmland and plantations (for example on Bashall and Stonyhurst estates);
- Sinuous belts of predominantly deciduous woodland line the river corridor;
- Farmed land is confined to the edges of the river valley, above the level of the wooded valley sides; pastures are sheep grazed and divided by gritstone walls and hedgerows;
- Single mature deciduous trees are also features, lining road corridors and within fields;
- Strong sense of enclosure within the valley corridor as a result of the adjacent woodland and mature deciduous trees that line the river corridor;
- Distinctive double arch stone bridge at Doeford is a landmark within views along the river corridor;
- The Wild Boar park is also a recognisable landscape feature;
- Framed views southwards towards the conifer-clad Longridge Fell contribute to recognisable sense of place;
- This area has a mature landscape structure of deciduous single trees and patches of woodland which form a mosaic pattern alongside the pastoral fields.

Landscape Character Area I8: Ribble

- This part of the upper section of the River Ribble is lined by continuous belts of deciduous and mixed woodland;
- A patchwork of pastoral fields lined with hedgerows and containing mature single deciduous trees;
- Road corridors are often lined with high hedgerows, containing mature deciduous trees;
- Framed views southwards to the dramatic profile of Pendle Hill contribute to recognisable sense of place.

CURRENT AND FUTURE LANDSCAPE CHANGES AND OPPORTUNITIES

Forces for Change

Past Landscape Change

4.9.24 Observable changes in the past include:

- Increasing influence of linear elements such as roads, introducing sinuous lines in the landscape;
- Improvement of pasture to create fields that are intensively grazed and subsequent loss of species diversity and change in colour and texture of the landscape;
- Pollution of the water courses from agricultural run off from adjacent pastoral fields;
- Deterioration in the management of riverside woodlands;
- Introduction of alien or non-native species;
- Reduction in the number of salmon within the River Hodder as a result of water extraction.

Current Landscape Condition

4.9.25 The overall condition of the Wooded Rural Valleys Landscape Character Type is considered to be moderate. There are pockets of rich biodiversity in the patchwork of woodlands and stream corridors, however, some elements are in declining condition, including dilapidated field barns, gappy hedgerows and stone walls. Evidence of a gradual loss of traditional management is also apparent in places.

Future Landscape Changes and Opportunities

4.9.26 In the short-term (5 years) it is likely that there will be positive changes in the form of management of woodland and hedgerows along the river corridors. Negative changes may include the conversion of historic buildings such as field barns. An increase in farm sizes may lead to a demand for new agricultural buildings, affecting character and views. There is also potential pressure for the development of pheasant shooting in valleys where this activity was not previously undertaken (e.g. Roeburndale). Increased financial pressures and reduced availability of higher level agri-environment payments, may lead to field boundaries, walls and hedges suffering from a lack of management. Works associated with new water pipelines may also result in alterations to the landscape.

4.9.27 Longer-term changes (20+ years) will be dependent on prevailing incentives and policies and it is therefore challenging to be prescriptive. The AONB Management Plan will provide a key tool in managing change and ensuring a positive future for the area. Potential longer-term changes and key guidelines within this Landscape Character Type are outlined below:

- *Agricultural Change and Land Management* – The amalgamation of farms and increased drive for efficient farm businesses or farms being sold as farmers and their families leave the industry; all have a direct impact on how the land is managed. As the key characteristics of the area are significantly influenced by agricultural practices, change in the industry could lead to an encroachment on the woodland lining the river corridors. Changes in land ownership or agricultural management may also lead to fragmentation of ownership of areas of woodland. There is also pressure for use of this landscape for pheasant shooting (for example, within the Roeburndale area).

- *Climate Change* – The likely effects of climate change on this landscape are not easily identifiable with current information, however, agricultural practices could be affected, with a move to plough up pasture and plant new crops. It is also possible that climate change will lead to an increase in flash flooding and erosion of the river corridors that run through this landscape.

- *Development* – Diversification of farm businesses leading to introduction of new buildings and the conversion of farm buildings for residential and other uses could gradually change the nature of the working landscape and its associated attributes. The erosion and loss of vernacular building styles within the small villages, through introduction of cheaper alternatives will reduce the distinctive characteristics of this area. It is likely that there will also be increased pressure from residential and tourist related developments, affecting the character and quality of the landscape. There is also potential pressure from the widening of existing road corridors, or upgrading with additional signage and lighting.

Sensitivities and Capacity for Change

4.9.28 The Wooded Rural Valleys Landscape Character Type is considered to have moderate visual sensitivity as a result of the variable sense of enclosure and moderate intervisibility with adjacent Landscape Character Types. In places, open views can be gained across the landscape, whilst in others, views are limited by woodland cover and topography. A diverse patchwork of woodland (some of which is ancient) and river corridor habitats contributes to overall high ecological sensitivity. In addition to this, the generally well maintained hedgerows and dry stone walls, stone bridges and remnants of historic mills contribute to overall high cultural and landscape character sensitivity. As a result of the above factors, this Landscape Character type is considered to have limited capacity to accommodate change without compromising key characteristics.

4.9.29 The overall strategy for this Landscape Character Type should be to conserve and enhance the distinct pattern of riverside woodlands, stone walls and hedgerows. The secluded and tranquil character of the area and the mosaic of juxtaposed habitats which make up important wildlife corridors should be maintained. There is a need to repair and enhance landscape features where they are in decline. The rich network of lanes and habitats between the lane walls should be conserved and enhanced.

4.9.30 Specific guidelines include:

Physical Character

- **Conserve** distinctive topographic features.

Ecological Character

- **Contribute** to catchment management and flood control by planting new woodlands to act as hydrological buffers to streams, whilst enhancing the existing resource[54];
- **Conserve** and **manage** all existing woodlands;
- **Buffer** ancient woodland through new planting and natural regeneration[55];
- **Remove** non-native species gradually and replace with native broadleaves through new planting and natural regeneration[56];
- **Reverse** woodland neglect by bringing all woodlands into active management[57];
- **Balance** new woodland creation with the interests of non-woodland habitats and species[58];
- **Conserve** and **expand** semi-natural habitats along and adjacent to riverbanks;
- **Control** and **remove** invasive non-native species.

Cultural and Historic Character

- **Encourage** the development and use of traditional skills through training and promotion of appropriate local materials that reinforce the distinct qualities of the landscape. For example, repairs to stone walls should reflect the local traditional construction;
- **Encourage** replacement planting of mature in-field and boundary trees;
- **Conserve** distinct landscape features that are vulnerable to developments such as highway improvements;
- **Conserve** and **restore** traditional buildings and settlements;
- **Protect** key views to and from the area from tall and vertical large-scale developments that may erode the open and undeveloped character of the area.

[54] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission and TEP.
[55] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission and TEP
[56] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission and TEP
[57] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission and TEP
[58] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission and TEP

Aesthetic and Perceptual Character

- **Conserve** channelled views along river corridors and framed views to adjacent Landscape Character Types;
- **Conserve** the strong sense of remoteness and tranquillity within most of the valleys.

LANDSCAPE CHARACTER TYPE J: VALLEY FLOODPLAIN

Key Characteristics

1. Open, broad, flat floodplains, subject to periodic flooding which provides fertile grazing land.
2. Steep, wooded bluffs and terraces enclose the floodplain.
3. Mature spreading floodplain trees are distinctive elements.
4. Large fields, divided by post and wire fencing, hedgerows or stone walls.

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4.10 J: VALLEY FLOODPLAIN

CHARACTER ASSESSMENT

Location

4.10.1 The Valley Floodplain Landscape Character Type occurs twice within the Study Area, firstly to the north of Caton (at the northern edge of the AONB) and secondly, to the south of Grindleton and Bolton-by-Bowland at the southern edge of the AONB. To the north, the Valley Floodplain encompasses the course of the River Lune and is bordered by Drumlin Field (K) and Undulating Lowland Farmland with Wooded Brooks (F) Landscape Character Types. To the south, the Valley Floodplain forms part of the course of the River Ribble and is bordered by Undulating Farmland with Wooded Brooks (Landscape Character Type F). The corridors of both river valleys continue outside the boundaries of the AONB.

Landscape Character Description

4.10.2 The two main rivers into which all the Bowland brooks and rivers drain are the Ribble to the south and the Lune to the north. As these main rivers originate high in the Pennines of Yorkshire they are already of substantial size by the time they reach Bowland, and they have become wide, slow, lazy rivers, meandering across open, broad and flat floodplains.

4.10.3 The valley floors are smothered with glacial till and river gravels which bury the rocks beneath. The rivers are often prone to flood – leaving eroded banks, debris and standing water. The rich alluvial drift deposits support fertile grazing land for cattle and sheep. Old flood defences and occasional ox bow lakes, remnant river channels and weirs provide visual interest and offer up evidence of past activity of both man and the river itself.

4.10.4 Enclosed by steep, wooded bluffs and terraces the valley floodplains (which have long been settled) contain a rich mosaic of standing water, lowland bogs, floodplain hay meadows and pastures. Numerous archaeological sites, castles, ancient settlements, bridges and routeways show that humans have long valued and used the valleys as important communication routes and for farming and trade. The lush green fields are usually large and divided by post and wire fencing, hedgerows or walls. Large mature spreading floodplain trees are distinctive elements in the fields and hedgerows. Settlements and impressive stone bridges mark ancient bridging points of the rivers.

Key Environmental Features

Physical

4.10.5 The rivers of the Valley Floodplains have cut down through the underlying rocks, but the valley floors are smothered with glacial till and river gravels which bury the rocks beneath. Alluvium deposits have enriched the valley floors, creating good soils for agriculture. Within the valleys, protected hollows and undulations have preserved accumulations of peat. The Lune and Ribble Rivers originate on the high land of the Yorkshire Dales. Their floodplains meander gently across wide green pastures, in places the river crosses a flat valley floor bordered by distinct bluffs, but elsewhere the floodplain rises gently to the undulating landscape beyond. Classic floodplain features, such as oxbow lakes and abandoned channels, are important landscape features and wildlife habitats and indicate the shifting position the river has adopted.

Ecological

4.10.6 The river channels provide important linear freshwater and wetland habitats which support diverse aquatic plants and invertebrates, as well as birds and fish. However agricultural intensification, drainage, flood defence work and urban/industrial development ensures that nature conservation interest is concentrated in remnant areas of neutral grassland, wet meadows, domed mosses, areas of standing water and marshland. Small areas of woodland on the valley sides, former oxbows and hedges and isolated trees fringing the river channels also provide important resources for nature conservation. Areas of river shingle and shallow wet margins are important for breeding birds and other wildlife, whilst eroding banks are an essential nesting habitat for kingfisher and sand martin. Burton Wood (partly within this Landscape Character Type), on the steep, south-facing side of the Lune valley, contains good examples of several of the northern deciduous woodland types, which are characteristic of the Lune valley and its tributaries. The main stand type is upland sessile oak woodland with an uneven aged canopy.

Cultural and Historical

4.10.7 Valley Floodplains have provided important routeways and communication routes since the earliest times, offering relatively easy routes through the surrounding hills and marshes. Roman forts at Ribchester and Over Burrow (both outside the AONB) overlooking the Ribble and Lune and their associated Roman roads indicate the importance of controlling these key routes through the hills. After the invasion, the Normans, built motte and bailey castles to control important centres or routeways Many formed part of a chain to defend a vulnerable frontier zone, for example on the Lune, at least nine such castles were constructed. Sawley Abbey, on the banks of the River Ribble was also founded in 1148. It operated as a Cistercian Abbey until 1586 when the monks became embroiled in the Pilgrimage of Grace (an attempt by lay landowners, primarily in the north of England, to reinstate monks to their abbeys in defiance of

Henry VIII's suppression order). The wide valleys continue to provide an important communication route for main roads, rail lines and canals. In general terms, the valley floodplains are devoid of settlement. Parliamentary enclosure is evident in the regular pattern of field boundaries. Many fields are now devoted to improved pasture, supporting the famous cheese making industry. The majority of these are hedged, but in the upland floodplain of the River Ribble, the high occurrence of river rolled boulders ensured there was enough material to construct stone walls. In places modifications of the river profile are evident in bank retention walls and low bunds, which possibly date to more intensive grazing and to increasing planting of forage crops on the floodplains after enclosure.

Development, Settlement and Buildings

- The Castle Stead near Hornby is the best example of a Norman motte and bailey castle in Lancashire and at the rear of the existing Hornby Castle is a fine example of a pele tower, the lower part dating from the 13th century with an early 16th century addition above[59];
- Settlements and stone bridges mark ancient bridging points of the rivers;
- The remains of Sawley Abbey are a visible landscape feature on the banks of the River Ribble.

Landscape Character Areas

4.10.8 Landscape Character Areas within this Landscape Character Type include:

[59] The Forest of Bowland: Landscape Assessment, Countryside Commission, 1992.

Landscape Character Area J1: Lune

- Flat, wide floodplain of the River Lune, which is surrounded by rolling drumlins and hills;
- Patchwork of medium to large size, regular fields of lush green pasture (predominantly improved agricultural land) are bounded by low clipped, often gappy, hedgerows with hedgerow trees.;
- River terraces and bluffs along the edge of the floodplain are sculptural elements which often support stone farm buildings and the remains of motte-and-bailey castles;
- Stone bridges are a feature and mark historic (medieval) crossing points of the river;
- There is also evidence of the industrial past and present; the route of a dismantled railway is still visible in the landscape;
- Large, traditional field barns are a key feature of the floodplain landscape;
- Panoramic open views northwards towards the peaks of the Yorkshire Dales and southwards to the dramatic rising Moorland Hills and Plateaux contribute to strongly recognisable sense of place.

Landscape Character Area J2: Ribble

- Open, flat, fertile plain encompassing a patchwork of pastoral fields which are delineated by a combination of hedgerows, wooden fencing, post and wire fencing or stone walls;
- The gently meandering course of the river Ribble is defined by the steep wooded bluffs and terraces which enclose the floodplain;
- Lush green fields of semi-improved pasture are grazed by sheep and cattle. The large regular fields are defined by gappy hedgerows;
- Mature floodplain trees are notable features in this Landscape Character Area; ash and oak stand in the floodplain, their silhouettes striking against the open landscape;
- General absence of settlement within the floodplain itself, but a number of large farms and country halls are positioned along the edges of the floodplain;
- There are a number of historic crossing points which coincide with these settlements where old stone bridges are important historic features of the floodplain;
- Panoramic, open views towards the central Bowland Moorland Hills and Plateaux to the north and Pendle Hill to the south;
- In the south of the area, the small village of Great Mitton is nestled within the valley corridor, at the point at which a minor road corridor crosses the river;
- There is a relatively strong sense of remoteness within much of the river corridor, which is slightly interrupted when it meanders around the northern edge of Clitheroe;
- Buildings associated within the Castle Cement works are dominant landmarks within views to and across this area.

CURRENT AND FUTURE LANDSCAPE CHANGES AND OPPORTUNITIES

Forces for Change

Past Landscape Changes

4.10.9 Observable changes in the past include:

- Loss of open floodplain views and riparian habitat by fencing out of river corridors, sometimes associated with tree planting;
- Eutrophication of the rivers as a result of high levels of nutrient input from surrounding pastoral farmlands;
- Decline of prominent scattered floodplain trees due to over-maturity;
- Loss of semi-natural wet meadow habitats due to agricultural intensification and amalgamation of farm units.

Current Landscape Condition

4.10.10 The overall condition of the Valley Floodplain Landscape Character Type is considered to be good to moderate, resulting from survival of the mosaic of linear freshwater and wetland habitats and remnant areas of neutral grassland, wet meadows, domed mosses, areas of standing water and marshland; and the mature landscape structure of woodland and field trees. There are some elements showing decline in places, particularly the loss and poor maintenance of occasional hedgerows, which have been supplemented in sections by post and wire fencing; and the loss of species-rich hay meadows.

Future Landscape Changes and Opportunities

4.10.11 In the short–term (5 years) it is likely that there will be positive changes in the form of managing important habitats through nature reserves and key landscape features in the wider landscape, such as hedgerows at field boundaries, woodland and field trees. However, negative changes are likely to include an increasing pressure on the quality of the landscape from tourist-related developments. Increasing traffic problems may also lead to highway improvements that detract from the rural character of some roads and reduce tranquillity.

4.10.12 Longer-term changes (20+ years) will be dependent on prevailing incentives and policies and it is therefore challenging to be prescriptive. The AONB Management Plan will provide a key tool in managing change and ensuring a positive future for the area. Potential longer-term changes and key guidelines within this Landscape Character Type are outlined below:

- *Agricultural Change and Land Management* – The amalgamation of farms and increased drive for efficient farm businesses or farms being sold as farmers and their families leave the industry; all have a direct impact on how the land is managed. As the key characteristics of

the area are significantly influenced by agricultural practices, change in the industry could lead to an encroachment on the woodland lining the river corridors. This may have a knock on effect on the maintenance of key landscape features, in particular boundary features and species rich pasture and floodplain habitats.

- *Climate Change* – Increasing temperatures may encourage expansion of tourist-related activities, putting further pressure on limited resources. Water quality in rivers may also be affected, having a negative effect on aquatic habitats and expansion of alien species into upper catchments. There may also be an increased incidence of flooding. Open grown-trees and some woodland may be at risk from a combination of summer drought and increased severity and frequency of storm events.

- *Development* – The built environment is predominantly in the vernacular style and is currently a distinct element of the landscape fabric. A loss of traditional skills and a reduction in the use of appropriate local materials will erode this distinct characteristic of the landscape, with increasing pressure on the landscape around towns from residential and other development. Features are vulnerable to highway improvements, expansion of villages and tourism facilities. Potential large-scale renewable energy developments and overhead transmission lines on the skyline of the valley sides may erode key views. Increasing traffic associated with tourism and recreation pressurising the road system may lead to inappropriate highway improvements, increased provision for car parking on undeveloped land and reduced tranquillity from noise and movement. Increased tourism and growth in holiday developments will lead to a loss of pasture or estate land developments.

Sensitivities and Capacity for Change

4.10.13 Overall visual sensitivity within the Valley Floodplain Landscape Character Type is considered to be high, as a result of the generally strong intervisbility with surrounding higher Landscape Character Types and the strong sense of openness within views along the valleys. A diverse patchwork of linear freshwater and wetland habitats remnant areas of neutral grassland, wet meadows, domed mosses, areas of standing water and marshland contribute to overall high ecological and landscape character sensitivity. In addition to this, there is a strong cultural pattern of hedgerows and stone walls which delineate field boundaries and contribute to overall high cultural sensitivity. As a result of the above factors, this Landscape Character Type is considered to have limited capacity to accommodate change without compromising key characteristics.

4.10.14 The overall strategy for the Valley Floodplain Landscape Character Type is to conserve the diverse pattern of standing water, floodplain hay meadows, mature floodplain trees and the network of hedgerows and dry stone walls. The strong intervisibility with surrounding Landscape Character Types should also be conserved and key landscape features appropriately enhanced where in decline. Where lost, the natural river form should be restored and conserved (referring to Environment Agency guidance).

4.10.15 Specific guidelines include:

Physical Character

- **Ensure** effective catchment management to sustain water quality;
- **Encourage** the creation of new woodland along appropriate riverbanks, which complements the existing woodland pattern;
- **Conserve** the natural form of the rivers by avoiding engineered solutions to water management, such as canalisation, bank hardening and river straightening;
- **Conserve** natural river floodplain features, such as meanders, oxbows, old river channels, ponds and islands.

Ecological Character

- **Conserve** valuable floodplain habitats by encouraging low intensity grazing in the remaining semi-natural habitats (which include mire, fen, flushes, marshy grassland and wet meadow);
- **Link** woodlands on the fringes of the floodplain with those on valley sides forming strong ecological linkages[60];
- **Allow** natural regeneration through grazing restrictions wherever possible[61];
- **Frame** strategic views from higher ground and bluffs[62];
- **Bring** all woodlands into active management to secure their long-term future[63];
- **Ensure** that settlements encroachment does not threaten the existing woodland resource[64];
- **Preserve** long, open views of the valley plains through careful selection of planting sites and species[65];
- **Ensure** that woodland creation does not adversely affect existing areas of ecological value[66];
- **Restore** and **enhance** wetland habitats;

[60] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission, TEP.
[61] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission, TEP
[62] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission, TEP
[63] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission, TEP
[64] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission, TEP
[65] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission, TEP
[66] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission, TEP

- **Target** agri-environment scheme support for management of broadleaved woodland, wetland pasture and meadow habitats;
- **Encourage** conservation of existing key habitats and landscape features and expand the resource through habitat restoration and re-creation guided by ecological networks;
- **Ensure** that UK Biodiversity Action Plan habitats are appropriately managed.

Cultural and Historic Character

- **Encourage** use of local materials and vernacular styles in developments to strengthen local character, including limestone and gritstone;
- **Conserve** and **enhance** the distinct pattern of stone walls and hedgerows delineating field boundaries on order to maintain landscape structure;
- **Conserve** historic and archaeological sites in the Valley Floodplains and consider the setting of historic and archaeological sites when planning and implementing all landscape management action;
- **Ensure** that highway improvement schemes respect and reflect local character and **encourage** the use of traditional signage where possible;

Aesthetic and Perceptual Character

- **Conserve** open views along and across the valley floodplains towards adjacent Landscape Character Types.

LANDSCAPE CHARACTER TYPE K: DRUMLIN FIELD

Key Characteristics

1. Small copses of mixed woodlands punctuate the landscape and provide visual foci.

2. Strong field pattern with distinctive limestone walls and low hedgerows enhance landform.

3. Rounded drumlins create a distinctive rolling topography.

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4.11 K: DRUMLIN FIELD

CHARACTER ASSESSMENT

Location

4.11.1 The Drumlin Field Landscape Character Type occurs at the northern edge of the AONB and continues to the north (within Craven District[67]) and west of AONB. There are four occurrences of this LCT within the Study Area, to the north of Caton, east of Hornby, northwest of Settle and south of Gisburn.

Landscape Character Description

4.11.2 Drumlins are distinctive rounded hills, usually 100-200m high, which occur in 'fields' or clusters, and are usually aligned in one direction. They were formed when glaciers scoured the uplands, and dropped the debris as thick 'boulder clay' which was then moulded into steep sided, rounded topped hills by the ice as it moved on – leaving a landscape as if drawn by a young child with smooth hills, winding rivers and farmsteads atop the hills.

4.11.3 The Drumlin Fields are characterised by small copses of woodland, sheltered marshy hollows, hedgerows and walls following the skylines of the hills and narrow streams winding between them. Major roads often skirt the areas, and settlements tend to lie on the sheltered lower slopes of the hills. Strong field patterns and some evidence of ancient ridge and furrow suggest a long history of farming these areas, and secluded woodland and wetlands have become important wildlife refuges because of their isolation. Framed views out of the areas look inwards towards the upland Bowland Fells and out to Yorkshire's Three Peaks.

Key Environmental Features

Physical

4.11.4 This distinctive landscape type is characterised by a `field' of rolling drumlins. The consistent orientation of the hills gives the landscape a uniform grain, which is sometimes difficult to appreciate from within the field. The regular green hillocks are between about 100m and 200m high with steep sides and broad rounded tops. However, there are often solid rock outcrops within the field where the underlying bedrock is exposed. The Drumlin Field landscape was created by the erosion and deposition actions of glacial ice sheets. The ice moulded dense boulder clay into oval whaleback hills. The alignment of the drumlins gives a distinctive grain to the landscape and provides important evidence of the movement of the

[67] Craven District (Outside the Yorkshire Dales National Park and Forest of Bowland AONB) Landscape Appraisal: Final Draft, October 2002, Landscape Design Associates for Craven District Council.

glacial ice sheets in the Quaternary period. Becks and immature rivers wind through the hills and there are occasional tarns in the hollows between them.

Ecological

4.11.5 Agricultural improvement through drainage, fertilisation and reseeding has reduced the extent of valuable grassland and wetland habitats to pockets of species-rich grassland and remnant mires. Important ancient woodland survives on the steep scarp slopes above the Lune and its tributaries. Rivers and streams provide important freshwater habitats for a range of species and the small areas of swamp and tall herb vegetation associated with the margins of water bodies are important as feeding and breeding sites for amphibians and invertebrates. Robert Hall Moor, to the south west of Wennington, has been designated as a SSSI for its unimproved grassland, flushes and scrub which is situated on a drumlin. The site is remarkable for its range of plants represented (over 150 species). In addition, Austwick and Lawkland Mosses (two connected areas of peatland in the valley of the River Wenning) are a designated SSSI on account of the wide range of habitats, raised mire, acid bog and poor fen communities. Inter-drumlin wetland are also a key ecological habitat.

Cultural and Historical

4.11.6 The gentle slopes of the free draining drumlins have proved attractive areas for settlement and farming from the middle of the prehistoric period. Old English place names ending in 'ton' and 'ham' predominate, although there are some clusters of Scandinavian place names. Roman roads and other remains occur within this Landscape Character Type. Whilst there is evidence of Parliamentary enclosure on the higher ground, many fields are considerably older, some having their origins in medieval field systems. The landscape is generally rural with isolated historic farms, hamlets and villages linked by winding lanes.

Development, Settlement and Buildings

- Dispersed settlement pattern of stone villages, hamlets and farmsteads which are sited in sheltered locations on the mid-slopes of drumlins;
- Scattered, isolated limestone field barns are also a feature of this area.

Landscape Character Areas

4.11.7 Landscape Character Areas within this Landscape Character Type include:

Landscape Character Area K1: Gressingham

- Framed views from lower points and open views from higher points north-westwards across Nether Kellet and Over Kellet to the urban areas of Carnforth and across Morecambe Bay;
- Mature single trees punctuate enclosed rolling pastoral fields, which are often lined with hedges and fences;
- Patches of mature mixed coniferous woodland, coupled with the rolling topography, contribute to an intermittent sense of enclosure, moving through the landscape;
- Dramatic, framed views northwards towards the peaks of the Yorkshire Dales;
- The small, nucleated hamlets of Gressingham and Aughton, alongside scattered, isolated farmsteads contribute to settlement pattern;
- Mature deciduous trees are clustered around farmsteads;
- Low hedgerows delineate field boundaries in places, often flowing over the top of hills;
- Framed views southwards towards the dramatic rising mass of Moorland Hills and Plateaux within the Forest of Bowland.

Landscape Character Area K2: Lower Tatham

- Mature, single deciduous trees are often located on ridgelines and in fields;
- The network of minor roads crossing the landscape, are often lined with low mixed hedgerows (often trimmed and containing hedgerow trees) and mature deciduous trees;
- Patches of mixed woodland and the rolling nature of the topography contribute to an intermittent sense of enclosure and frame views across the landscape;
- Mixed ancient semi-natural woodland parcels show an extensive history of coppice activity and contribute a sense of enclosure;
- Damp birch woodland blocks are also a feature of the landscape;
- Framed views southwards into the corridor of the River Hindburn;
- Dramatic, open views northwards towards the Peaks of the Yorkshire Dales;
- Dramatic, open views southwards towards the rising mass of Moorland Hills and Plateaux within the Forest of Bowland;
- Scattered traditional stone farmsteads punctuate the surrounding rolling pastoral farmland.

Landscape Character Area K3: Lawkland

- At the eastern edge of the area, the main road corridor the A65(T) introduces a source of noise and movement which disturbs the otherwise relatively strong sense of tranquillity throughout;
- A railway line, with its associated bridges, also cuts through the landscape;
- A distinctive pattern of drystone walls line field boundaries and contribute to an instantly recognisable landscape pattern;
- Neatly clipped hedges often line road corridors and single deciduous trees are dotted with the patchwork of pastoral fields;
- The gently meandering, unenclosed course of several beck (stream) corridors cross the landscape and break up the homogeneity of the surrounding fields;
- Settlement pattern consists of a series of scattered, traditional stone farmsteads and small hamlets, such as Lawkland and Eldroth;
- Panoramic, open views northwards and eastwards towards the dramatic limestone peaks and scars of the Yorkshire Dales contribute to instantly recognisable sense of place and provide orientation within views across this area.

Landscape Character Area K4: Coronation

- This Landscape Character Area is situated outside the AONB;
- Situated at the eastern edge of the Study Area, this area encompasses a series of low drumlin mounds which are cloaked in a patchwork of pastoral fields;
- The fields are delineated by a network of hedgerows, with occasional drystone walls and fences at field boundaries;
- In addition, several small patches of woodland, small reservoirs and narrow stream corridors contribute to landscape pattern;
- Sense of tranquillity is relatively strong throughout much of the southern part of the are, but is disturbed in the north by proximity to the A59 main road corridor;
- Views southwards towards Pendle Hill and northwards across the Ribble Valley contribute to recognisable sense of place;
- The edges of Barnoldswick urban area are visible from the eastern edge of the area.

CURRENT AND FUTURE LANDSCAPE CHANGES AND OPPORTUNITIES

Forces for Change

Past Landscape Changes

4.11.8 Observable changes in the past include:

- Amalgamation of farmsteads which resulted in an expansion of field sizes;
- Neglect of farm woodlands and prominent hill top copses;
- Small-scale introduction of non-vernacular materials;
- Loss of over-mature single field trees.

Current Landscape Condition

4.11.9 The overall condition of the Drumlin Field Landscape Character Type is considered to be good. A predominantly intact network of stone walls and hedgerows delineate field boundaries and road corridors and trees and woodland are generally in good condition. There is however, evidence of decline of landscape elements, such as stone walls and traditional field barns in places and occasional gappy hedges.

Future Landscape Changes and Opportunities

4.11.10 In the short –term (5 years) it is likely that there will be positive changes in the form of managing key landscape features in the wider landscape, such as hedgerows and stone walls at field boundaries, woodland and field trees. However, negative changes are likely to include increasing traffic pressure on minor road corridors, which may lead to highway improvements that detract from their rural character and reduce tranquillity; and potential new telecommunications or renewable energy developments on the tops of the drumlins.

4.11.11 Longer-term changes (20+ years) will be dependent on prevailing incentives and policies and it is therefore challenging to be prescriptive. The AONB Management Plan will provide a key tool in managing change and ensuring a positive future for the area. Potential longer-term changes and key guidelines within this Landscape Character Type are outlined below:

- *Agricultural Change and Land Management* – The mature hedgerow and wall networks contribute to a recognisable landscape pattern and if not supported through agri-environment payments, could fall out of active management. This could then have significant effect on both biodiversity and landscape character. More extensive farming of livestock could also lead to a loss of key landscape features through neglect or removal to enable the amalgamation of adjacent fields. Amalgamation of farms may influence field sizes and field boundaries and field expansion would weaken the strong field pattern and reduce ecological interest. Larger farm sizes increase the demand for new agricultural

buildings, affecting character and views. There is also potential for the continued neglect of farm woodlands

- *Climate Change* – Climate change could have an impact on agricultural practices and there could be a move in the future to plough up pasture and plant new crops. These could be anything from vegetables, animal feed or biofuel to new types of crops, however any increase in arable production would significantly change the character of this area. Climate change could also lead to increased numbers and severity of storm events and summer drought, impacting on open grown trees and woodland.

- *Development* – Sustained pressure to develop renewable energy resources could lead to increased development of key skylines and view eroding valuable landscape quality. Similarly, the loss of vernacular building styles and use of inappropriate building materials will result in the loss of local landscape characteristics. At present, the road network is predominantly rural and could face significant highway improvements in the future as a result of increasing traffic flows.

Sensitivities and Capacity for Change

4.11.12 This Landscape Character Type is considered to have moderate ecological sensitivity as a result of the pockets of species-rich grassland and remnant mires, coupled with moderate cultural and historic sensitivity resulting from the presence of archaeological sites on the drumlins. Landscape character sensitivity is considered to be moderate to high as a result of pattern of landscape features, including stone walls, hedgerows and pockets of woodland. Overall, the Drumlin Field Landscape Character Type is considered to have limited capacity to accommodate change without compromising key characteristics.

GUIDELINES FOR MANAGING LANDSCAPE CHANGE

4.11.13 The overall strategy for this Landscape Character Type is to conserve the distinctive rolling landform, and to maintain the distinctive landscape pattern of pasture fields delineated with dry stone walls and hedgerows. Inter-drumlin wetlands should be retained and enhanced. The strong built vernacular character, and skyline and views into and out of the area should be retained. Built development on ridgelines and hill tops should be avoided.

4.11.14 Specific guidelines include:

Physical Character

- **Conserve** the distinctive rolling landform by minimising vertical elements such as communication masts and windfarms;
- **Avoid** built development on ridgelines and hilltops.

Ecological Character

- **Bring** all woodlands into active management[68];
- **Increase** the proportion of woodland cover through small-scale copse planting[69];
- **Establish** localised and long distance ecological networks that extend beyond the Drumlin Fields[70];
- **Seek** opportunities for the re-introduction of traditional management of coppiced woodlands[71];
- **Avoid** loss and erosion of woodlands through the amalgamation and diversification of farms[72];
- **Ensure** that new woodland does not adversely affect other valuable habitats or archaeological features[73];
- **Conserve** and **maintain** distinctive clumps of trees;
- **Conserve** semi-natural habitats, such as grasslands and inter-drumlin wetlands;
- **Encourage** the management of traditional coppice woodlands;
- **Conserve** and **restore** inter-drumlin wetlands and semi-natural grasslands wherever these occur;
- **Encourage** continued management of the hedgerow network;
- **Avoid** loss or damage to mature field trees through intensification of agricultural practices;
- **Ensure** that UK Biodiversity Action Plan habitats are appropriately managed.

Cultural and Historic Character

- **Conserve** the intact network of limestone walls at field boundaries, which contribute to distinctive landscape pattern;
- **Avoid** ribbon development which may detract from the characteristic dispersed pattern of groups of buildings in a rural setting;
- **Restrict** built development on the skyline of drumlins; buildings should be sited on the mid-slopes, above poorly drained land;
- **Encourage** the repair of stone walls where in decline or dilapidated, utilising local vernacular materials (limestone);

[68] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission, TEP.
[69] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission, TEP.
[70] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission, TEP.
[71] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission, TEP.
[72] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission, TEP.
[73] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission, TEP.

- **Conserve** the dispersed pattern of stone villages, hamlets and farmsteads located in sheltered locations on the mid-slopes of the drumlins;
- **Conserve** the archaeological and historic environment in order to maintain a rich cultural landscape;
- **Ensure** that highway improvement schemes respect and reflect local character and **encourage** the use of traditional signage where possible;

Aesthetic and Perceptual Character

- **Maintain** the predominantly open character of the landscape;
- **Protect** key views to and from the area from tall and vertical large-scale developments that may erode the open and undeveloped character of the area;
- **Shelter** built development within the undulating landform- avoid ridgelines or hill tops.

LANDSCAPE CHARACTER TYPE L: ROLLING UPLAND FARMLAND

Key Characteristics

1. An intact network of drystone walls at field boundaries creates a distinctive landscape structure.

2. Stunted, wind-blown hawthorns and gorse on roadsides and steeper hills.

3. Isolated farmsteads, stone barns and walled circular enclosures.

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4.12 L: ROLLING UPLAND FARMLAND

CHARACTER ASSESSMENT

Location

4.12.1 The Rolling Upland Farmland Landscape Character Type occurs within the eastern half of the Study Area, to the east of Slaidburn. It also continues outside the boundary of the AONB. To the west, this LCT is bordered by Undulating Lowland Farmland with Parkland (Landscape Character Type G), whilst the northern edge is formed by Forestry and Reservoir (Landscape Character Type M).

Landscape Character Description

4.12.2 Rolling Upland Farmland is a predominantly pastoral landscape with the underlying geology reflected in the materials used in field boundary walls and farm buildings. The combination of limestone and gritstone has created a gentle landscape of soft rolling hills, cloaked with moorland grasses in the higher parts, and lush green pastures and herb rich meadows on the lower slopes.

4.12.3 Stands of beech trees are a distinctive feature, growing on rocky slopes and outcrops, and often enclosed by circular walls. Similarly, stone circles act as sheep folds, and exist with isolated farmsteads and stone barns. An intact network of stone walls, which suggest a sense of enclosure in an exposed landscape, creates a distinctive landscape structure. Small clustered stone villages occur on south facing slopes and there are also some small linear settlements. Stunted wind blown hawthorns and gorse line the lanes and steeper hillsides; views out are towards Gisburn Forest and Pendle Hill.

Key Environmental Features

Physical

4.12.4 The combined presence of Millstone Grit and limestone has created a gentle landscape of rolling hills. This is further softened by the effects of glacial gravel and clay deposits, which in places have been eroded to expose rocky outcrops. The underlying geology is also exposed by the materials used in boundary walls and in farm buildings. The Rolling Upland Farmland is undulating in character; the majority of streams being confined to areas where Millstone Grit is dominant.

Ecological

4.12.5 Trees are common as individual and linear features throughout the landscape and provide local habitats and wildlife corridors. Occasional ancient woodlands survive and constitute an

important ecological resource. Despite modern agricultural practices some isolated hay meadows and herb-rich pastures of national importance have survived, particularly to the east of Slaidburn. Barn Gill Meadow (to the north east of Slaidburn) has been designated as a SSSI for its two types of herb-rich grassland in which over 73 species of plants have been recorded. Lancliff Cross Meadow, to the east of Slaidburn is also designated as a SSSI as it represents one of the best examples of the few remaining species-rich meadow grasslands in the county. In addition, Strandridge Farm Pasture, also to the northeast of Slaidburn is designated as a SSSI for its unimproved enclosed herb-rich flushed pasture. Within the Rolling Upland Farmlands, Hesley Moss has been designated as a SSSI as a result of its reasonable intact example of a basin raised mire. Such mires were formerly extensive but have been greatly reduced in England, where nearly all the remaining area has been damaged by drainage, fire or peat cutting.

Cultural and Historical

4.12.6 The modern landscape is shaped by years of sheep grazing. Stone farmsteads, many of which are located next to streams, and boundary walls, illustrate the proximity of the underlying rocks. The boundaries represent what appears to be Parliamentary enclosure of once marginal land. Roads are narrow and winding, traversing the areas to link dispersed settlements.

Development, Settlement and Buildings

- Isolated stone farmsteads, stone barns and walled circular enclosures are visible built features;
- Small, isolated, traditional stone hamlets are also a feature of this Landscape Character Type.

Landscape Character Areas

4.12.7 Landscape Character Areas within this Landscape Character Type include:

Landscape Character Area L1: Harrop Fold

- A patchwork of marginal pastures and more fertile pastoral fields, lined with a distinctive pattern of drystone walls contributes to landscape pattern within this area;
- There is a strong sense of remoteness, isolation and tranquillity throughout most of the area;
- A network of narrow, often single track roads, lined with dry stone walls, species-rich roadside verges and occasional stunted hawthorns and oaks provide access;
- Isolated farmsteads are located at the end of farm tracks where farm buildings are generally tightly grouped around the house. There is evidence of increasing renovation and gentrification of farmsteads;
- Strong sense of openness throughout much of this landscape;
- Dramatic, open views westwards towards Harrop and Newton Fells, White Hill and Bleasdale Unenclosed Moorland Hills;
- To the north of the area, Gisburn Forest is landmark feature within views northwards, which encloses views of the surrounding higher Moorland Hills;
- To the south, panoramic, open views across the flat floodplain of the River Ribble, across Clitheroe urban area, towards the dramatic profile of Pendle Hill contribute to recognisable sense of place.

CURRENT AND FUTURE LANDSCAPE CHANGES AND OPPORTUNITIES

Past Landscape Changes

4.12.8 Observable changes in the past include:

- Conversion of traditional farm buildings to holiday homes;
- Improved pasture surrounded by stone walls where intensive farming has spread onto higher ground;
- Outside of protected nature conservation areas ecological interest has been depleted through agricultural improvements.

Forces for Change

Current Landscape Condition

4.12.9 The overall condition of the Rolling Upland Farmland Landscape Character Type is considered to be good. A predominantly intact network of stone walls delineates field boundaries and road corridors and roadside trees and pockets of woodland are generally in good condition. There is however, evidence of decline of landscape elements, such as stone walls and a loss of traditional building materials in barn conversions.

Future Landscape Changes and Opportunities

4.12.10 In the short –term (5 years) it is likely that there will be positive changes in the form of managing key landscape features in the wider landscape, such as stone walls at field boundaries. However, negative changes are likely to include increasing traffic pressure on minor road corridors, which may lead to highway improvements that detract from their rural character and reduce tranquillity; and potential new telecommunications or renewable energy developments.

4.12.11 Longer-term changes (20+ years) will be dependent on prevailing incentives and policies and it is therefore challenging to be prescriptive. The AONB Management Plan will provide a key tool in managing change and ensuring a positive future for the area. Potential longer-term changes and key guidelines within this Landscape Character Type are outlined below:

- *Agricultural Change and Land Management* – The drystone wall network that contributes to a recognisable landscape pattern and if not supported through agri-environment payments, could fall out of active management. This could then have significant effect on landscape pattern. More extensive farming of livestock could also lead to a loss of key landscape features through neglect or removal to enable the amalgamation of adjacent fields. Amalgamation of farms may influence field sizes and field boundaries and field expansion

would weaken the strong field pattern and reduce ecological interest. Larger farm sizes increase the demand for new agricultural buildings, affecting character and views.

- *Climate Change* – Climate change could have an impact on agricultural practices and there could be a move in the future to plough up pasture and plant new crops. These could be anything from vegetables, animal feed or biofuel to new types of crops, however any increase in arable production would significantly change the character of this area. Climate change could also lead to increased numbers and severity of storm events and summer drought, impacting on open grown trees and woodland.

- *Development* –The loss of vernacular building styles and use of inappropriate building materials will result in the loss of local landscape characteristics. At present, the road network is predominantly rural and could face significant highway improvements in the future as a result of increasing traffic flows.

Sensitivities and Capacity for Change

4.12.12 This Landscape Character Type is considered to have moderate ecological sensitivity as a result of the presence of trees and pockets of ancient woodland which provide local habitat and wildlife corridors. Cultural and landscape character sensitivity is considered to be high as a result of the intact network of limestone drystone walls which contribute to a coherent pattern. Overall, the Rolling Upland Farmland Landscape Character Type is considered to have limited capacity to accommodate change without compromising key characteristics.

GUIDELINES FOR MANAGING LANDSCAPE CHANGE

4.12.13 The overall strategy for this Landscape Character Type is to conserve and maintain the distinctive landscape pattern of pasture fields delineated with stone walls, the strong built vernacular character and sense of remoteness resulting from the network of narrow lanes. There is also a need to protect skylines and views into and out of the area.

4.12.14 Specific guidelines include:

Physical Character

- **Conserve** the distinctive undulating landform by minimising vertical elements such as communication masts and wind turbines;

Ecological Character

- **Bring** all woodlands into active management[74];

[74] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission, TEP.

- **Avoid** loss and erosion of woodlands through the amalgamation and diversification of farms[75];
- **Conserve** the remaining unimproved grasslands and hay meadows by employing traditional management practices and avoiding the use of artificial fertilisers;
- **Manage** limestone grasslands to meet biodiversity objectives;
- **Conserve** stands of beech and walled enclosures;
- **Conserve** and **maintain** distinctive clumps of trees;
- **Increase** links between existing woodlands to reverse the fragmentation of the woodland resource[76];
- **Ensure** that other wildlife habitats are not compromised by woodland development[77];
- **Conserve** pockets of ancient woodland;
- **Encourage** conservation of existing key habitats and landscape features and expand the resource through habitat restoration and re-creation guided by ecological networks;
- **Ensure** that UK Biodiversity Action Plan habitats are appropriately managed.

Cultural and Historic Character

- **Conserve** the intact network of limestone walls at field boundaries, which contribute to distinctive landscape pattern;
- **Encourage** the repair of stone walls where in decline or dilapidated, utilising local vernacular materials (limestone);
- **Conserve** the dispersed pattern of stone villages, hamlets and isolated farmsteads;
- **Conserve** the archaeological and historic environment in order to maintain a rich cultural landscape;
- **Ensure** that highway improvement schemes respect and reflect local character and **encourage** the use of traditional signage where possible.

Aesthetic and Perceptual Character

- **Maintain** the predominantly open character of the landscape;
- **Protect** key views to and from the area from tall and vertical large-scale developments that may erode the open and undeveloped character of the area.

[75] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission, TEP.
[76] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission, TEP
[77] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission, TEP

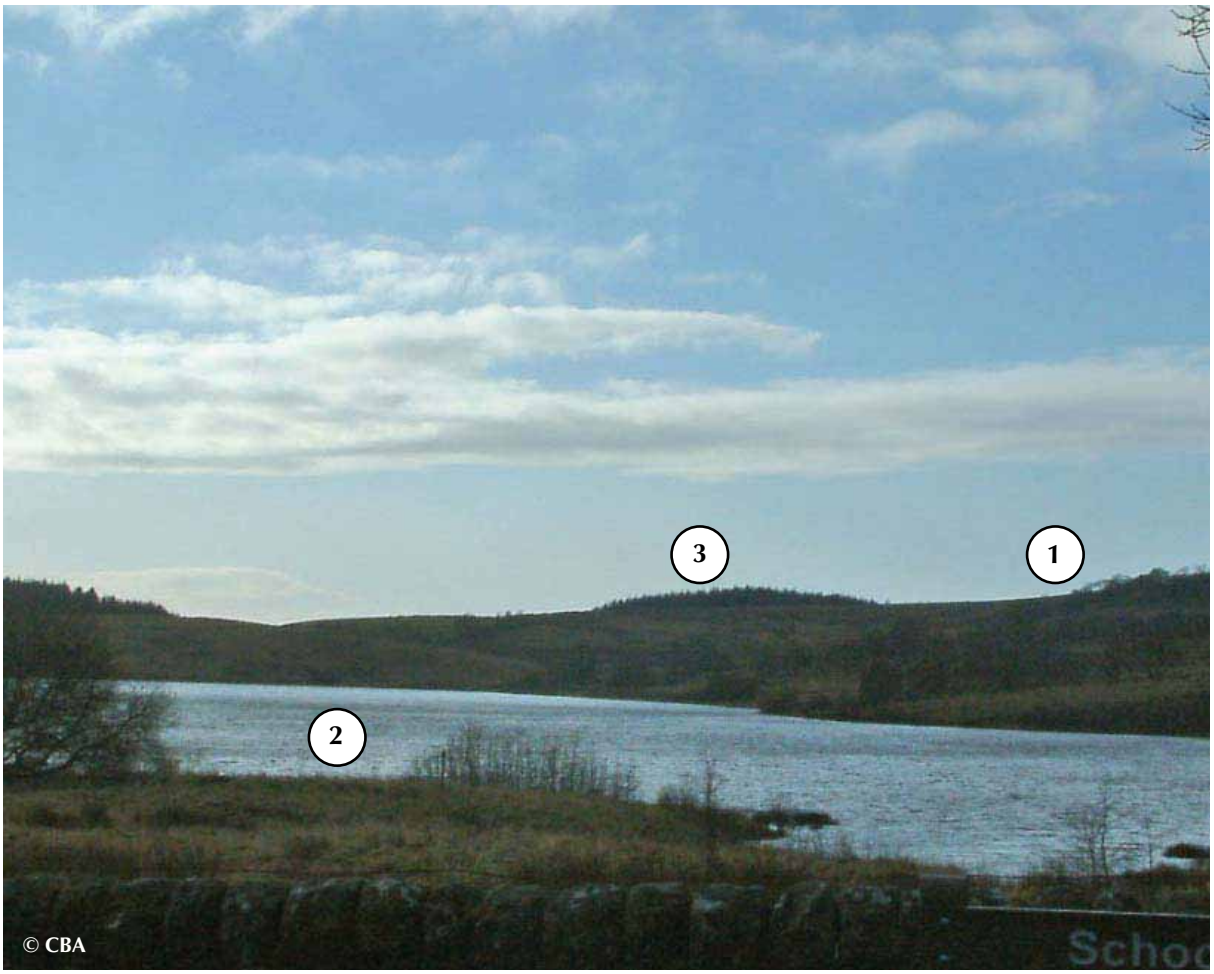
LANDSCAPE CHARACTER TYPE M: FORESTRY AND RESERVOIR

Key Characteristics

1. A textured landscape, set against the smoother, muted backdrop of Moorland Hills.

2. Expanses of open water of reservoirs, with associated wetland birds.

3. An 'engineered character' as a result of the influence of reservoir(s) and plantation woodland(s)



4.13 M: FORESTRY AND RESERVOIR

CHARACTER ASSESSMENT

Location

4.13.1 The Forestry and Reservoir Landscape Character Type occurs twice within the Study Area, firstly to the north-east of Slaidburn (encompassing Gisburn Forest) and secondly on the Pendle Hill outlier, to the south and east of Barley. This LCT is bordered by a combination of Moorland Fringe (D), Rolling Upland Farmland (M) and Enclosed Moorland Hills (C) Landscape Character Types.

Landscape Character Description

4.13.2 The man made or 'engineered' features of these upland hills dominate the character and feel of these areas. Both reservoirs and forestry do exist elsewhere within the AONB, but not with the same level of dominance as seen in this landscape. Reservoir 'furniture' such as dams, stone walls, roads and slipways and buildings add to the built feel of the areas, although these are often ornate rather than purely functional structures.

4.13.3 The landscape is dominated by open water and coniferous forestry, although there are also large areas of pastoral fields running down to the banks of the reservoirs, and small patches of broadleaved woodland. Field boundaries are mostly dry stone walls, and these also line the narrow lanes. Small traditional stone built villages nestle at the foot of Pendle.

4.13.4 Gisburn Forest, Stocks Reservoir and the Barley reservoirs exist within what was once Rolling Upland Farmland, it was transformed in the early and mid twentieth century due to a rising demand for water and timber, and was largely de-populated to make way for the developments. Relic farmsteads within Gisburn Forest and the drowned village of Dale Head are testament to a once thriving community. Old field boundaries can still be found in the forest here and around Barley.

Physical

4.13.5 The underlying geology and topography of this Landscape Character Type is similar to that of the Rolling Upland Farmland Landscape Character Type. Landscapes within this type would once have been upland farmland landscapes, before the reservoir and woodland were superimposed onto the landscape pattern. The combined presence of Millstone Grit and limestone has created a gentle landscape of rolling hills. This is further softened by the effects of glacial gravel and clay deposits, which in places have been eroded to expose rocky outcrops

Ecological

4.13.6 Plantation woodlands which are fenced to exclude grazing, attract small mammals to the dense understorey. Due to a dense canopy, the more mature woods support fewer mammals, although species such as gold crest, coal tit, and siskin are all found in the plantations. Forest rides provide habitat for a number of uncommon plant species. In some areas, the semi-natural broadleaved woodland edge and individual native trees along the banks provide important wildlife habitats. The draw down zones on reservoirs are important habitats for a specialised flora including a number of nationally scarce species. Reservoirs such Stocks are important for breeding and over wintering wildfowl and waders. These interests are, however, compromised at times by angling and water-based recreation.

Cultural and Historical

4.13.7 The construction of the reservoirs (particularly the larger one at Stocks) has destroyed many early remains of land use and settlement. In the mid-late 19th century the rural landscape of the valleys was transformed by the construction of numerous large water bodies to supply the growing populations of the surrounding conurbations. The appropriation of the land by the water undertakings and consequent depopulation had a significant landscape impact. The remains of these farms are still extant. The reservoirs represent important feats of engineering and constructions, such as feeder conduits, overflow cascades and slipways, embankments and tunnels, are of historical significance. Much of the mixed woodland planting associated with the reservoirs originated as 19th century catchment plantings and continues to be managed by the water authorities today. The reservoirs reflect the demands of the rapidly expanding urban populations in industrial centres during the Victorian period. Stocks, the largest reservoir within the AONB, was opened by HRH the Prince George KG, on July 5th 1932. After treatment, the water from Stocks goes mainly to the Fylde area of Lancashire. Before work could start on the dam, a village to house 300-400 men and their families had to be built, which, when complete had its own water supply, sewerage scheme, electricity supply, canteen, cinema and a recreation hall. The construction village is now long gone and all that remains to be seen is the dam, the causeway and the tramways from nearby quarries, which were used to supply the building sites. .

Development, Settlement and Buildings

- The settlement pattern is dominated by scattered stone farmsteads and hamlets, with the villages of Barley and Roughlee nestling within the valley of Pendle Water;
- At Stocks reservoir, the church provides one of the only built elements.

Landscape Character Areas

4.13.8 Landscape Character Areas within this Landscape Character Type include:

Landscape Character Area M1: Gisburn

- Dense coniferous woodland provides a strong sense of enclosure within the Gisburn Forest;
- A patchwork of pastoral fields slope down to the edge of Stocks reservoir, punctuated with clumps of deciduous trees and delineated by a network of wooden fences and occasional stone walls;
- A stone bridge crosses the corridor of Bottom's Beck and is a landscape feature;
- In addition to this, the isolated church and associated small wind turbine provide some of the only landmark built elements within this area;
- On sunny days, the water within Stocks reservoir glints and glistens, providing an instantly recognisable feature within open views from surrounding higher Landscape Character Types (such as the Unenclosed Moorland Hills and Moorland Plateaux);
- Open views across the wide expanse of water, with glimpse views towards the smooth texture of the Unenclosed Moorland Hills to the north and west, contribute to a recognisable sense of place;
- Areas of felling and re-planting also contribute texture to the landscape of this area;
- Road corridors within the forest are often lined with mossy stone walls and deciduous trees, which give the impression of a softer woodland edge, hiding the more regular plantation woodland from view;
- At the eastern edge of the area, open, expansive views towards the Yorkshire Dales contribute to recognisable sense of place;
- Waders are often seen on Stocks Reservoir.

Landscape Character Area M2: Barley

- The small, linear village of Roughlee at the eastern edge of the area encompasses traditional gritstone cottages and terraces which nestle at the foot of Pendle Hill;
- Landscape pattern is dominated by a pattern of small reservoirs (including Upper and Lower Black Moss and Lower Ogden) and regular-edged blocks of coniferous plantation woodland, which are overlain on a pattern of pastoral fields;
- Field boundaries with surrounding pastoral fields are delineated with low to medium hedges, which often contain hedgerow trees;
- Smooth, pasture fields extend to the edged of the reservoirs;
- The network of minor road corridors that cross this landscape are often lined with stone walls;
- The small village of Barley, displaying predominantly traditional stone buildings, is situated towards the centre of the area and nestles against a backdrop of Unenclosed Moorland Hills within views across the landscape;
- Open views towards Pendle Hill to the north provide recognisable sense of place;
- The reservoirs and woodland blocks are instantly recognisable landscape features within views from the nearby Pendle Hill Unenclosed Moorland Hills and Moorland Plateaux Landscape Character Areas;
- The dramatic valley of Ogden Clough is a striking landscape feature to the north of Barley.

LANDSCAPE CHANGES AND OPPORTUNITIES

Past Landscape Changes

4.13.8 Observable changes in the past include:

- Flooding or partial flooding of valleys to create reservoirs;
- Loss of hamlets, villages or farmsteads;
- Creation of areas of commercial coniferous forestry woodland;
- Loss of traditional field boundary features.

Forces for Change

Current Landscape Condition

4.13.9 The overall condition of the Forestry and Reservoir Landscape Character Type is considered to be good to moderate, resulting from the moderate ecological value of areas of woodland, which are generally well managed; and the well managed nature of the reservoirs and their associated structures.

Future Landscape Changes and Opportunities

4.13.10 In the short-term (5 years) it is likely that there will be positive changes in the form of restructuring and management of woodland and hedgerows and reservoir edges. Negative changes may include an increased pressure on this landscape from recreational activities, leading to a potential increase in traffic on the surrounding network of rural roads

4.13.11 Longer-term changes (20+ years) will be dependent on prevailing incentives and policies and it is therefore challenging to be prescriptive. The AONB Management Plan will provide a key tool in managing change and ensuring a positive future for the area. Potential longer-term changes and key guidelines within this Landscape Character Type are outlined below:

- *Agricultural Change and Land Management* – The restructuring of coniferous woodland and replacement with broadleaves could have a positive impact on the landscape, resulting in more natural edges to woodland and less geometric landscape pattern. Changes in land ownership or agricultural management may also lead to fragmentation of ownership of areas of woodland.

- *Climate Change* – The likely effects of climate change on this landscape are not easily identifiable with current information, however, agricultural practices could be affected, with a move to plough up pasture and plant new crops. It is also possible that climate change will lead to an increase in flash flooding and loss of key tree species.

- *Development* – It is likely that there will also be increased pressure from recreational and tourist related developments, affecting the character and quality of the landscape. There is also potential pressure from the widening of existing road corridors, or upgrading with additional signage and lighting. Potential increases in visitor numbers to Gisburn Forest associated with the new mountain biking tracks.

Sensitivities and Capacity for Change

4.13.12 The Forestry and Reservoir Landscape Character Type is considered to have moderate visual sensitivity as a result of the variable sense of enclosure and moderate intervisibility with adjacent Landscape Character Types. In places, open views can be gained across the landscape, whilst in others, views are limited by woodland cover. A diverse patchwork of woodland contributes to overall moderate ecological sensitivity. In addition to this, the generally well maintained dry stone walls and stone bridges contribute to overall high cultural and landscape character sensitivity. As a result of the above factors, this Landscape Character Type is considered to have limited to moderate capacity to accommodate change without compromising key characteristics.

GUIDELINES FOR MANAGING LANDSCAPE CHANGE

4.13.13 The overall strategy for the Forestry and Reservoir Landscape Character Type should be to conserve and enhance woodland, maintain open views to surrounding Landscape Character Types and repair landscape elements such as stone walls where these are in decline. Built reservoir features, the open reservoir edges, and the mosaic of habitats found there should also be conserved and enhanced.

Physical Character

- No guidelines recommended.

Ecological Character

- **Enhance** the visual character of this Landscape Character Type through new native woodland screen planting around commercial forestry plantations[78];
- **Restructure** coniferous plantations to increase the proportion of native broadleaved trees[79];
- **Harness** arisings from conifer plantation restructuring as a timber supply to local construction and craft companies[80];
- **Incorporate** rides and glades into woodland structure to increase their biodiversity[81];

[78]Lancashire Woodland Vision, Lancashire County Council, Forestry Commission, TEP;
[79] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission, TEP;
[80] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission, TEP
[81] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission, TEP

- **Bring** existing woodland into active management[82];
- **Screen** commercial planting with visually striking mixes of native broadleaves to create better wildlife habitats and amenity resources[83];
- **Encourage** the maintenance of existing woodland boundary walls, banks and hedges, giving priority to those important for stock control;
- **Encourage** the maintenance of distinctive woodland features such as woodland banks and ditches, saw pits, charcoal burning sites and veteran trees by management;
- **Encourage** the enhancement of the character of native broadleaved woodland by stock-proofing to prevent grazing and allow natural regeneration, thinning to remove non-native and invasive species as well as restocking with appropriate native species where natural regeneration does not occur;
- **Encourage** the enhancement of reservoirs by appropriate planting of native trees and shrubs on banks, sympathetic grading of lake margins as well as encouragement and planting of marginal vegetation, where there is no conflict with wildlife value;
- **Encourage** conservation of existing key habitats and landscape features and expand the resource through habitat restoration and re-creation guided by ecological networks;
- **Ensure** that water margins and open water areas are protected for wildlife;
- **Ensure** that plantation rides and glades are managed for biodiversity;
- **Ensure** that UK Biodiversity Action Plan habitats are appropriately managed.

Cultural and Historic Character

- **Encourage** the maintenance and conservation of existing reservoirs, historic bridges and their associated historic features;
- **Conserve** the distinctive built character of the reservoirs and associated structures;
- **Ensure** that highway improvement schemes respect and reflect local character and **encourage** the use of traditional signage where possible;
- **Ensure** that new drainage pipelines are well integrated into the surrounding landscape.

Aesthetic and Perceptual Character

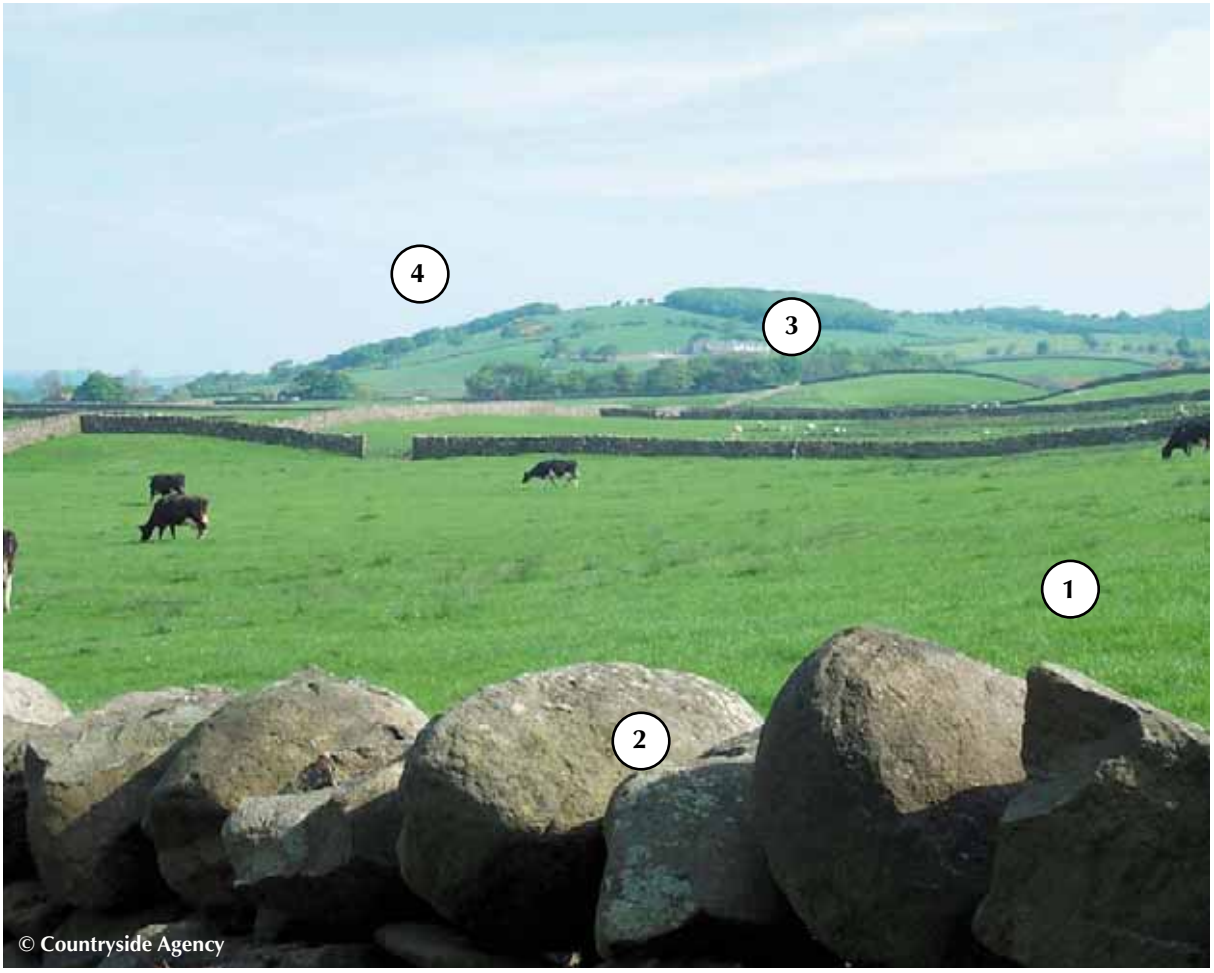
- **Protect** key views to and from the area from tall and vertical large-scale developments that may erode the open and undeveloped character of the area.

[82] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission, TEP
[83] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission, TEP

LANDSCAPE CHARACTER TYPE N: FARMED RIDGES

Key Characteristics

1. Mosaic of mixed farmland and woodland forms a textural backdrop to the surrounding lowlands.
2. Low stone walls often delineate field boundaries.
3. Settlement pattern of isolated stone farmsteads.
4. Rounded ridge profiles of the gritstone outcrops.



4.14 N: FARMED RIDGES

CHARACTER ASSESSMENT

Location

4.14.1 There are two occurrences of the Farmed Ridges Landscape Character Type within the AONB, one to the west of Quernmore and the other on the Pendle Hill outlier, to the south of Sabden. In both instances, this Landscape Character Type continues outside the AONB boundary and is surrounded by a variety of different Landscape Character Types.

Landscape Character Description

4.14.2 Although relatively low in comparison to the Bowland Fells, the sinuous gritstone outcrops which form the distinctive Farmed Ridges provide a textural backdrop to the surrounding lowlands. The ridges, which rise quite dramatically from the surrounding landscape to elevations of 140-230 m, have distinctive rounded profiles and are predominantly covered with a mosaic of mixed pastoral farmland and visually striking broadleaved woodlands. The ridge tops which afford long, open views across surrounding lowlands are often crowned with a woodland, settlement or road.

4.14.3 Settlements tend to be linear, or scattered isolated farmsteads. Low stone walls are often used to delineate field boundaries in pasture land used for sheep, beef and dairy cattle. Designed landscapes and country houses reflect the long history and suitability of the ridges for settlement

Key Environmental Features

Physical

4.14.4 These gritstone outcrops are relatively low in comparison to the Moorland Plateaux, Unenclosed and Enclosed Moorland Hills Landscape Character Types, however their distinctive ridge profiles set them apart from the adjacent lowland agricultural landscapes. The ridges are formed from high areas of Millstone Grit which rise dramatically from the surrounding landscape to elevations of between 140 and 230 metres. The Millstone Grit outcrops in places, but is largely overlain by Boulder clay.

Ecological

4.14.5 Intensive farming practices mostly concerned with the grazing of beef, dairy cattle and sheep limit the nature conservation value of this area, although the small pockets of woodland on the sides of the ridges provide some ecological interest.

Cultural and Historical

4.14.6 The elevated nature of the ridges and the excellent views of the valleys and Lancashire Plain have ensured that they have been important strategically and symbolically throughout history. Intensive farming of recent history threatens to remove traces of early enclosure, although the early origin of field patterns is still discernable in the landscape.

Development, Settlement and Buildings

- Isolated farmsteads are a key feature of this landscape;
- Quernmore Park Hall, built from sandstone is a key historic landmark within the area.

Landscape Character Areas

4.14.7 Landscape Character Areas within this Landscape Character Type include:

Landscape Character Area N1: Quernmore

- This area provides a backdrop to views south and westwards from the wide valley floodplain of the River Ribble;
- Panoramic, open views from the western edge of this area across Lancaster towards Morecambe Bay contribute to recognisable sense of place.
- Dense, mixed woodland on the top of the ridge provides a strong sense of enclosure and limits views across the area;
- Quernmore Park Hall estate, with its estate gates and parkland trees is a key landscape feature which contributes to recognisable sense of place;
- Distinctive landscape pattern of mixed woodland and pastoral farmland, predominantly delineated by stone walls;
- Minor road corridors are often lined with trimmed hedgerows.

Landscape Character Area N2: The Heights

- Panoramic, open views northwards towards moorland on Pendle Hill which provides the skyline backdrop;
- Panoramic views southwards across the East Lancashire valleys to the South Pennines;
- Open views across the corridor of Sabden Brook, which is lined with patches of mature trees;
- Stronger sense of openness to the east of Sabden;
- The enclosed, wooded southern side of the ridge provides the setting to the village of Sabden within views southwards and limits views towards the urban areas of Padiham and Barrowford;
- A rough texture of scrub and rough grassland is the predominant land cover;
- From the top of the ridge, open, panoramic views southwards across the urban areas of Padiham and Barrowford contribute to recognisable sense of place.

CURRENT AND FUTURE LANDSCAPE CHANGES AND OPPORTUNITIES

Forces for Change

Past Landscape Changes

4.14.8 Observable changes in the past include:

- A decline in mature hedgerow trees as a result of age or loss due to agricultural intensification;
- Amalgamation and diversification of dairy farms;
- Addition of visual clutter (including communication masts) on prominent ridge-top skylines.

Current Landscape Condition

4.14.9 The overall condition of the Farmed Ridges Landscape Character Type is considered to be good. The landscape elements such as stone walls, hedgerows and patches of woodland within this Landscape Character Type are generally in good condition. There are some elements showing signs of decline in some places, particularly the loss or poor maintenance of stone wall and hedgerow field boundaries. Overall, however, there is a predominantly intact landscape pattern throughout this Landscape Character Type.

Future Landscape Changes and Opportunities

4.14.10 In the short term (5 years) it is likely that there will be continued positive changes in the form of improvements in the biodiversity of woodlands.

4.14.11 Negative changes are likely to include the spread of bracken where grazing is lost, increasing traffic on small roads and pressure on sensitive habitats from increased access.

4.14.12 Longer-term changes (20+ years) will be dependent on prevailing incentives and policies and it is therefore challenging to be prescriptive. The AONB Management Plan will provide a key tool in managing change and ensuring a positive future for the area. Potential longer-term changes and key guidelines within this Landscape Character Type are outlined below:

- *Agricultural Change and Land Management* – Neglect of hedges around enclosed land could reduce the potential landscape and wildlife benefits in many places, leading to a substitution by fences. Increased farm sized may increase the demand for new large agricultural buildings and associated development affecting key views. Loss of farm woodlands would result in changes to the landscape pattern of hillsides.
- *Climate Change* – The likely effects of climate change on this landscape are not easily identifiable with current information, however, agricultural practices could be affected, with a move to plough up pasture and plant new crops.

- *Development* –Communication developments may lead to increased visual clutter from mobile phone masts or inappropriately designed transport schemes.

Sensitivities and Capacity for Change

4.14.13 Overall ecological and landscape character sensitivity within the Farmed Ridges Landscape Character Type is considered to be moderate as a result of patches of mixed woodland which contribute to the mosaic pattern. Visual sensitivity is also moderate, resulting from the intermittent sense of enclosure provided by areas of dense woodland. Outside this woodland, there is strong intervisbility with adjacent Lowland Undulating Farmland and Moorland Hills Landscape Character Types.

GUIDELINES FOR MANAGING LANDSCAPE CHANGE

4.14.14 The overall strategy for the Farmed Ridges Landscape Character Type should be to conserve the distinctive mosaic of mixed farmland and woodland, the intricate pattern of stone walls that delineate field boundaries and the long, open views across surrounding lowlands from the ridge top settlements and roads. There is also a need to appropriately enhance hedgerows and repair stone walls where these are in decline, and to conserve the smooth, uncluttered skyline of the ridges.

4.14.15 Specific guidelines include:

Physical Character

- **Conserve** the rounded profile of gritstone outcrops.

Ecological Character

- **Extend** woodlands on ridge sides through native planting and the modification of grazing regimes to assist with natural regeneration, particularly in areas where woodland seed banks may remain on the sites of former woodlands[84];
- **Increase** the robustness of the woodland resource by focusing natural regeneration and new planting in close proximity to existing woodland[85];
- **Ensure** that productive cattle and sheep grazing can be maintained whilst enhancing nature conservation interests and maximising opportunities for woodland regeneration[86];

[84] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission and TEP.
[85] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission and TEP
[86] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission and TEP

- **Ensure** that opportunities for woodland development do not impact detrimentally on the valuable habitats that are present[87];
- **Maintain** the network of hedgerows to conserve the historic field pattern;
- **Replant** degraded sections of hedgerow which contribute to the overall landscape pattern;
- **Encourage** conservation of existing key habitats and landscape features and expand the resource through habitat restoration and re-creation guided by ecological networks;
- **Ensure** that UK BAP habitats are appropriately managed.

Cultural and Historic Character

- **Conserve** the distinctive pattern of stone walls at field boundaries;
- **Encourage** the use of local building materials, in particular limestone and gritstone;
- **Encourage** sympathetic conversion of buildings of industrial heritage;
- **Encourage** sympathetic new uses for disused farm buildings to ensure they remain a viable and contributory feature within this landscape;
- **Conserve** the rural setting of individual farms by ensuring new built development does not encroach;
- **Ensure** that new development reflects the pattern of clustered settlements of local stone buildings and short terraces to counteract the pressures for ribbon development and reflect the characteristic settlement pattern;
- **Ensure** that highway improvement schemes respect and reflect local character and **encourage** the use of traditional signage where possible;

Aesthetic and Perceptual Character

- **Conserve** long, open views across surrounding lowlands from ridge-top settlements and roads;
- **Minimise** vertical structures on the skyline;
- **Retain** the predominantly rural character of the ridges by minimising the use of urban elements such as kerbs and street lights outside settlement.

[87] Lancashire Woodland Vision, Lancashire County Council, Forestry Commission and TEP

5.0 FUTURE FORCES FOR CHANGE

5.1 Introduction

5.1.1 The landscape, ecological and historical resources of the Study Area are constantly changing in response to human activity and natural processes. Section 4.0 includes detailed assessments of the predicted forces for change, both positive and negative, that are considered likely to affect the underlying condition and character of the AONB's landscape types in the future. These changes relate to four key areas:

- Agricultural change ;
- Land management;
- Climate change;
- Development pressures; and
- Demands for recreation.

5.1.2 This section sets out a brief overview of the key issues and challenges presented by these forces for change for the AONB as a whole. This provides as a context for future development of strategies for managing landscape change and for the proposed approach to monitoring landscape change set out in section 6.0.

5.2 Forces for Change

5.2.1 The following section examines the future forces and opportunities for change related to agricultural and land management practices in the Study Area.

Agricultural Change

5.2.2 In the years since the major reforms of the CAP in 2000, farmers have found the receipts from rural development subsidies more important than those from production-related subsidies. As subsidy payments are increasingly decoupled from agricultural production, the incentive to produce specific commodities is likely to decrease. This is considered likely to have two key effects. Firstly, land uses are likely to diversify, and secondly, production will be more strongly influenced by market demand and therefore types of land use will fluctuate as the relative demand for various commodities change.

5.2.3 In more recent reforms, agri-environment schemes have been introduced to reward farmers for agricultural production methods compatible with the protection and enhancement of the environment. There are projected gains for landscape and biodiversity, which can offer

indirect benefits to the farming community. These schemes can assist and encourage agriculture to face the competitive challenges of the growing and diversifying rural markets.

5.2.4 Within the Study Area, greater numbers of farmers are leaving the industry, and with an increase in the number of people visiting the area, there are an increasing number of farmhouses and associated buildings being sold and converted into housing, often for holiday homes. The domestication of buildings can have a significant impact on the character of the landscape, especially in remoter locations.

5.2.5 The Forest of Bowland retains a relatively large number of traditional barns which have not yet been converted. Converted farm buildings may provide an ideal location for rural businesses to act as a catalyst for local training and employment and they represent a means for preserving historic structures which are important local landscape features. However, the trend may lead to negative landscape impacts in sensitive, remote and often prominent rural locations and also to the loss of key features related to architecturally or historically important barns. Barn conversions also place considerable pressure on dwindling populations of barn owls and various species of bats. Most historic building conversions are subject to strict design guidance, but planners may find it more difficult to control the incremental development of the immediate surroundings. Ornamental garden plants, garden fences, driveways, car parking and power lines all contribute to the suburbanised character that often accompanies this sort of development.

5.2.6 As a result of the Renewables Obligation (which is designed to incentives the generation of electricity from eligible renewable sources in the United Kingdom). , there is likely to be an increase in demand for renewable energy crops, such as flax and hemp, biomass or woodfuel. The scale and form of these crops has potential impacts on the landscape character of the Study Area. There is also likely to be a continued transition towards organic production, both of livestock and crops (for example organic beef and vegetables).

5.2.7 In summary, the key potential future forces for change relating to agriculture are:

- Agricultural specialisation and intensification resulting in a loss of semi-natural habitats and cultural features;
- Changing agricultural policy creating uncertainty and pressures on livestock farming;
- Loss of traditional skills and infrastructure is reducing the ability to manage the traditional landscape features and buildings of the AONB;
- Ageing farm workforce with fewer younger farmers to replace those that are retiring. This can lead to fewer young people to look after the land, the conversion of farm units into

small gentrified hamlets and increased commuting into neighbouring towns, often resulting in more traffic on minor roads.

Land Management

5.2.8 Extensive areas of moorland within the Forest of Bowland AONB are managed specifically for grouse shooting and management varies with land ownership. Future pressures on the landscape area likely to include the need for new access tracks for shoots, potential new shooting butts and shooting cabins, which require careful choice of local materials, in keeping with the local vernacular. For example, the use of limestone for access tracks on gritstone moorland could result in the creation of a potentially incongruous landscape features.

5.2.9 In addition, the heather moorland of the Bowland Fells has traditionally been managed for red grouse shooting through the practice of annual burning. This takes place between October and mid April and encourages the growth of new young heather shoots as food for grouse. There has been a recent trend for replacement of the annual burning with cutting using machines. The product of this is a straighter landscape pattern than the traditional burning patchwork or mosaic as a result of the limited routes and directions that machines can follow. Future forces for change include measures to encourage heather regeneration, control of bracken and blocking of drains and grips to help restore blanket bogs and mires.

5.2.10 Louping ill is a viral disease transmitted by sheep ticks and has been recorded for more than 200 years in Britain in sheep flocks. This tick infestation is causing high mortality among grouse chicks and other ground nesting birds[88]. As part of the grouse moor management, there is current and future pressure to suppress 'louping ill' to levels where its impact on red grouse is low. Habitat improvements and predator control are being used by moorland gamekeepers in an attempt to control the disease. In some areas, sheep flocks which had once been removed from the moorland have now been protected against the disease. Sheep are now gradually being reintroduced to transfer ticks from grouse and other ground nesting birds. The control of louping ill is likely to be a future management issue for moorland within the Study Area.

5.2.11 It is likely, with the involvement of major landowners, such as United Utilities, that sensitive felling and restocking of woodland within the Study Area will be undertaken. This process has already begun in several locations within the AONB. There is also pressure for continued management and renewal of existing semi-natural woodlands, including those in riparian locations.

[88] Farmers weekly interactive article, 13th July 2009 – Hill Farming comes through turbulent times: Ouzel Thorn Farm, Abbeystead Estate, Forest of Bowland.

5.2.12 In summary, the key potential future forces for change relating to land management are:

- Management of moorland for recreational shooting;
- Management of moorland habitats and ecosystems to protect the birds and wildlife that it supports;
- Management of semi-natural woodland.

Climate Change

5.2.13 Climate change is increasingly acknowledged as a key driver of future landscape change. Defra's UK Climate Projections Study[89] has predicted the type of climate changes that might be expected over the coming century. These predictions include:

- All areas in the UK are likely to get warmer, and the warming is greater in the summer than in winter;
- There is likely to be little change in the amount of precipitation (rain, hail, snow etc) that falls annually, but it is likely that more of it will fall in the winter, with drier summers for much of the UK;
- Sea levels will rise, but this will be greater in the south of the UK than the north.

5.2.14 Predictions have also been made for the North-West region for low medium and high emission scenarios in 2020, 2050 and 2080. A number of general effects of climate change on woodlands and trees are already understood. Research indicates that there will be longer growing season, with milder winters and that growth rates of many of the main tree species will increase. Changing temperature patterns could also increase the number of pest and disease outbreaks. As a result, there is likely to be a need within the Study Area, to increase the range of tree species, increase genetic diversity and restructure the composition of woodlands to improve resilience[90].

5.2.15 Within the Moorland Plateaux and Unenclosed/Enclosed Moorland Hills Landscape Character Types, winters storms and increased incidences of heavy rainfall could wash nutrients from soils. Important peat soils could dry out and begin to release carbon into the atmosphere and there is also a risk of increased incidences of peat and bracken fires. The erosion of gullies from moorland grips as a result of freak rainfall or flash flooding is also a potential issue.

[89] http://ukcp09.defra.gov.uk
[90] http://www.forestresearch.gov.uk

5.2.16 From a biodiversity perspective, natural habitats and species may be put under severe pressure from changes in temperatures. The impacts of climate change on peat bogs within the AONB are also a particular concern. If peat bogs dry out, they could potentially release thousands of years worth of stored carbon into the atmosphere. The erosion of vegetation cover from blanket bog can reduce its water retention capacity and increase the risk of downstream flood peaks. In this context, the implementation of the Water Framework Directive is likely to have a significant influence on land use and water resource policy in the Study Area in the medium to long term. This may assist in the preservation of blanket peat bog areas and increase the extent and quality of wetland habitats through more integrated and ecosystem-led approaches to catchment management.

5.2.17 In summary, the key potential future forces for change relating to climate change are:

- Change to the species composition of habitats;
- Increased risk and frequency of flooding;
- Increased risk of moorland fires;
- Potential increased soil erosion due to sudden downpours and weakened soil structure;
- Potential change to cropping patterns and types of crops in response to climate change;
- Hotter, drier summers, leading to reduced ground water and drying out of peat bog habitats, which can release carbon into the atmosphere. Appropriate management of blanket bogs across the AONB (e.g. grip blocking and suitable levels of grazing) will maintain and enhance the carbon sequestration function of these important habitats;
- A warmer but possibly more oceanic climate combined with high levels of diffuse (atmospheric) nutrient enrichment leads to the growth of taller, competitive plants causing a loss of less competitive species typical of nutrient-poor habitats.

Development Pressures

5.2.18 Buildings make a valuable contribution to the scale and identity of landscapes within the Study Area. Today, the distinctive character of the area's buildings and settlements is a product of local vernacular circumstances, however the landscape is constantly changing and there is likely to be pressure from several different types of development, other than just buildings within the future. The key potential future forces for change relating to development within the Study Area include:

- Tall vertical developments within or at the edges of the AONB, including wind farms or telecommunications masts, which can be visually intrusive and impact upon the landscape character of the area;
- Increasing traffic pressures on minor rural road corridors associated with increased visitor numbers, potentially resulting in increased signage or road improvements;
- Noise and movement of passenger and freight traffic associated with the towns of Clitheroe and Whalley (and their associated industries), which may result in pressure for road widening, impacting on overall sense of tranquillity;
- Lighting within and at the boundaries of the AONB, impacting upon dark night skies;
- Wind turbine/farm developments within or at the periphery of the AONB, which introduce tall vertical elements into the landscape. Taking into account their cumulative visual impact, this type of development could potentially impact on the wider setting of the AONB, the current landscape character and overall sense of tranquillity;
- Small-scale cumulative development (e.g. building extensions, residential boundary treatment, roadside concrete curbing and signage) resulting in erosion of integrity and quality;
- Suburbanisation of rural buildings, such as the conversion of farm buildings and the introduction of diversification activities such as horsiculture;
- Introduction of new overhead transmission lines. There is, however, potential for the undergrouding of overhead electricity lines within the AONB to reduce their visual impact[92].
- Development of infrastructure associated with the water supply industry which has potential landscape and visual impacts;
- Suburbanisation of the landscape around villages and towns, as a result of small-scale extensions to existing urban areas.

Recreational Demands

5.2.19 The Forest of Bowland is a popular visitor destination for the surrounding Lancashire urban settlement and the AONB provides an important recreational resource for the nearby settlements and the East Lancashire mill towns. There area remains relatively 'undiscovered'; however its popularity is likely to increase. Under the CRoW Act 2000 large areas of the Bowland Fells have been mapped as open country (mountain, moor, heath and down) bestowing new rights of access on foot. The key potential future forces for change relating to recreation within the Study Area include:

[92] The feasibility of this is currently being examined on Champion Moor as part of Electricity North West Ltd.s Undergrounding for Visual Amenity Project.

- Pressure on key destinations (for example, well visited areas within the Bowland Fells, adjacent to the Trough of Bowland and also at foot of Parlick Hill and Fellfoot) resulting in erosion and potential damage to archaeological sites, loss of habitats, tranquillity and diminished visitor experience;
- Use of rights of way both legally and illegally by motorised vehicles causes conflict with other recreational users and local communities;
- Increase in visitor numbers is likely to involve increase in use of private cars to access recreational sites, thus detracting from the visitor experience;
- Increased demand for car parking (both formally associated with visitor facilities and informally for access to the landscape);
- Pressure for chalet and caravan accommodation related to increased tourism which could have landscape and visual impacts.

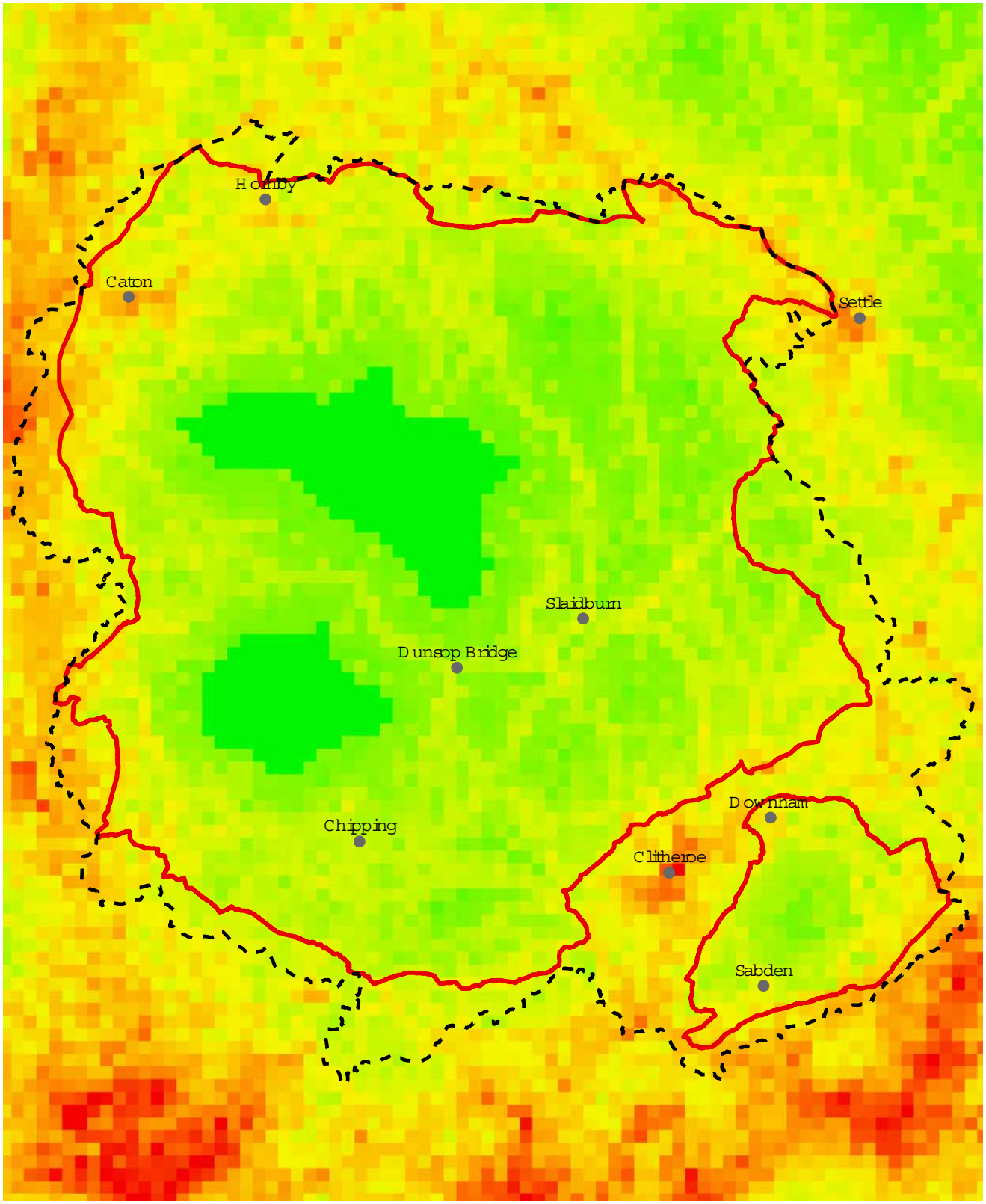
5.3 Landscape Tranquillity

5.3.1 Tranquillity is an important aspect of landscape character and quality of life. Tranquillity can be defined as freedom from the noise and visual intrusion, including light pollution, associated with developed areas, roads, transport and traffic, and areas with intensive recreational activities and other uses that contribute to disturbance.

5.3.2 The Campaign to Protect Rural England (CPRE) has developed a new methodology to measure tranquillity within England[93]. CPRE commissioned researchers to carry out a nationwide survey to test what tranquillity means to people, and identify their perceptions of what factors were most likely to add and to detract from their sense of experiencing tranquillity when they visited the countryside. Using a Geographical Information Systems (GIS) model, this survey information was associated with a range of national datasets and took account of topography to create a nation-wide map revealing the likelihood someone would experience tranquillity within any locality.

5.3.3 The degree of relative tranquillity within the Study Area as measured by CPRE is shown on **Figure 5.1**. This shows that the likelihood someone would experience tranquillity is relatively high throughout much of the AONB, and greatest in the remoter, higher areas, and in other areas which are served by narrow, minor roads. Away from these quieter areas, tranquillity is affected by increasing levels of noise and light pollution associated with traffic along the road corridors at the edge of the Study Area. Maintaining a sense of tranquillity within the Study Area is likely to be a key issue in the future, in light of the pressures for changed noted above.

[93] www.cpre.org.uk/campaigns/landscape/tranquillity



KEY

Relatively Most Tranquil

Relatively Least Tranquil

Study Area

Forest of Bowland Area of Outstanding Natural Beauty

0 2 4 km

S:\projects\11109301 Forest of Bowland\GIS\Projects\Figures\11109301-FoB_2-6_Tranquillity.mxd

CHRIS BLANDFORD ASSOCIATES
www.cba.uk.net

SEPTEMBER 2009

FOREST OF BOWLAND AONB
LANDSCAPE CHARACTER ASSESSMENT

Figure 5.1
Tranquillity

6.0 MONITORING LANDSCAPE CHANGE

6.1 Introduction

6.1.1 This final section identifies indicators for monitoring changes, both positive and negative, in the character of the AONB's landscape.

6.1.2 Good practice for monitoring landscape change[94] suggests that characteristic landscape elements of individual character units need to be selected to act as key indicators for monitoring change. The main criteria for selection of indicators include:

- Must be central to the distinctive character of individual landscape character units;
- Should be liable to experience change either in magnitude/extent or in condition/quality;
- Are capable of being measured against the defined guidelines for individual landscape character units;
- They need to be defined precisely in terms of desired trends;
- The desired direction of change for the chosen indicator must be known; and
- Where possible, local stakeholders should be involved in the choice of indicators, particularly where their participation is needed to collect information or assist in monitoring changes.

6.2 The National Approach to Monitoring Landscape Change

6.2.1 At the national level, the Countryside Quality Counts (CQC) study[95] has developed indicators for monitoring changes in the character of the English landscape within the framework of National Character Areas. The CGC approach is based on evaluating the magnitude of change (assessed as 'stable' or 'changing') and then its direction (assessed as 'consistent' or 'inconsistent' with the vision for the National Character Area for each of the following main elements or themes that determine landscape character:

- Woodlands and trees;
- Boundary features;
- Agricultural land cover;
- Settlement and development patterns;
- Semi-natural habitats;
- Historic features; and

[94] Landscape Character Assessment – Guidance for England and Scotland: Topic Paper 2 – Links to Other Sustainability Tools (Countryside Agency/Scottish Natural Heritage, 2002)
[95] CQC is sponsored by Natural England, in partnership with Defra and English Heritage

- River and coastal features.

6.2.2 Each National Character Area in England was allocated to one of four categories, based upon quantitative and qualitative analysis of spatial and tabular data related to the above themes, the significance of which was judged and validated by local stakeholders. The categories are:

- ***'Maintained:*** if the character of an area is already strong and largely intact, and the changes observed for the 'key' themes served to sustain it, or simply because the lack of change meant that the important qualities are likely to be retained in the long term;

- ***Enhancing:*** if the changes in the 'key' themes tended to restore the overall character of an area, or to strengthen it;

- ***Neglected:*** if the character of an area has been weakened or degraded by past change, and the changes observed in the 'key' themes have not had the effect of restoring the desired qualities that made the area distinct. National Character Areas have also been described as 'neglected' if significant opportunities to restore or strengthen character remain;

- ***Diverging:*** if the change in the 'key' themes appeared to be transforming the character of the area so that either its distinctive qualities are being lost, or significant new patterns are emerging.'

6.2.3 The CQC study has made an assessment of countryside change for two periods: 1990-1998 and 1999-2003. The headline indicators for the most recent monitoring period[96] in relation to the five National Character Areas that apply within the Forest of Bowland AONB are as follows:

- Morecambe Bay Limestones - ***Maintained***
- Yorkshire Dales - ***Maintained***
- Bowland Fringe and Pendle Hill - ***Maintained***
- Bowland Fells - ***Enhancing***
- Lancashire Valleys - ***Diverging***

6.3 Monitoring Landscape Change in the AONB

6.3.1 The AONB Management Plan highlights that landscapes are a product of constant change. It notes that one of the purposes of the AONB designation is to reflect this process of change by encouraging activities that conserve and enhance the special qualities of the area and minimising activities that present a threat to the unique character of the landscape.

[96] Haines-Young, R.H. (2007) Tracking Change in the Character of the English Landscape, 1999-2003 Natural England, NE42

6.3.2 Using an approach that is complimentary to the CQC monitoring data, it is proposed that landscape change within the AONB is monitored by measuring changes in landscape character over time, based on observations in the field from sample views. This approach uses the Landscape Character Assessment as a baseline and provides a finer grain level of analysis to inform the monitoring, and where necessary review, of the guidelines for each of the Landscape Character Types.

6.3.3 The following three key indicators for measuring changes in landscape character are proposed:

- (A) - Number of changes inconsistent and consistent with defined landscape character;
- (B) - Mapping tranquillity, including light and noise pollution; and
- (C) - Changes in vegetation mosaics.

Indicator A - Number of Changes Inconsistent and Consistent with Defined Landscape Character

6.3.4 The information provided by this Landscape Character Assessment provides a basis for choosing sample views that define landscape character within the AONB. These sample views should be used to identify and measure the extent and condition of features that directly affect visual landscape change, including:

- individual elements or cumulative change that affects the landscape character in a negative way (e.g. loss and/or neglect of traditional field boundaries); and
- monitoring changes that support or enhance landscape character and the special qualities of the AONB (e.g. where walls have been restored and hedges re-laid).

6.3.5 The descriptions and guidelines for the Landscape Character Types (Section 4.0) provide the baseline for monitoring changes in landscape character from the sample views.

6.3.6 The proposed key indicators for monitoring changes inconsistent and consistent with the guidelines for each defined Landscape Character Type are set out in the table below.

Table 3: Proposed Key Indicators for Monitoring Change within Landscape Character Types

Landscape Character Type	Proposed Key Indicator
A: Moorland Plateaux	• Changes to panoramic views from fell summits • Change in area of heath/heather moorland • Change in area of acid grassland • Change in area of blanket bog • Change in area of coniferous plantations
B: Unenclosed Moorland Hills	• Changes to panoramic views from fell summits • Change in area of heath/heather moorland • Change in area of blanket bog • Change in area of coniferous plantations • Change in area of clough woodland
C: Enclosed Moorland Hills	• Changes to panoramic views from fell summits • Change in area of heath/heather moorland • Change in area of blanket bog • Change in area of commercial coniferous plantations. • Change in area of semi-natural clough woodland • Change in length and condition of stone walls
D: Moorland Fringe	• Change in area of semi-improved pasture; • Change in length and condition of stone walls; • Change in area of semi-natural broadleaved woodland; • Change in number and condition of traditional field barns; • Changes to panoramic views from higher points; • Change in area of scrub/marginal land • Change in settlement pattern • Change in area of pastoral/in-bye farmland
E: Undulating Lowland Farmland	• Change in pattern of hedgerow network • Change in area of semi-natural broadleaved woodland • Change in the area of semi-natural ancient woodland • Change in settlement pattern • Change in materials or use of traditional farm buildings • Change in area of hay meadows
F: Undulating Lowland Farmland with Wooded Brooks	• Change in pattern of hedgerow network • Change in area of semi-natural broadleaved woodland • Change in the area of semi-natural ancient woodland • Change in settlement pattern • Change in extent of woodland along brook corridors
G: Undulating Lowland Farmland with	• Change in area of formal parkland • Change in number of former parkland

Landscape Character Type	Proposed Key Indicator
Parkland	boundary features • Change in area of former deer parks • Change in length of avenues of formal tree planting; • Change in extent of estate fencing • Change in pattern of hedgerow network • Change in area of semi-natural broadleaved woodland • Change in the area of semi-natural ancient woodland • Change in settlement pattern
H: Undulating Lowland Farmland with Settlement and Industry	• Change in pattern of hedgerow network; • Change in area of semi-natural broadleaved woodland; • Change in settlement pattern; • Change in extent of industrial areas
I: Wooded Rural Valleys	• Change in area of semi-natural oak woodland • Change in area of herb-rich grassland and wet meadows • Change in the number of historic mills • Change in condition and length of stone walls
J: Valley Floodplains	• Change in area of species-rich hay meadows • Change in pattern of stone walls • Change in pattern of hedgerows • Change in area of broadleaved woodland • Change in number of field boundary trees • Change in number of tree clumps • Change in settlement pattern
K: Drumlin Field	• Change in pattern of settlement • Change in pattern of limestone walls; • Change in length of limestone walls; • Change in area of unimproved limestone grassland; • Change in the area of traditional coppiced woodlands; • Change in the pattern of hedgerows; • Change in traffic noise levels from the A65 road corridor; • Change in number and condition of traditional field barns.
L: Rolling Upland Farmland	• Change in pattern of drystone walls • Change in settlement pattern • Change in panoramic views from higher ground
M: Forestry and Reservoir	• Change in area of pastoral grazing land • Change in area of broadleaved woodland • Change in pattern of drystone walls • Change in pattern of hedgerows
N: Farmed Ridges	• Change in pattern of drystone walls • Change in area of broadleaved woodland • Change in area of mixed woodland • Change in settlement pattern • Changes to panoramic views from ridge

Landscape Character Type	Proposed Key Indicator
	tops • Change in area of commercial coniferous plantations • Change in settlement pattern • Change in number of historic halls, estates and deer parks

Indicator B - Mapping Tranquillity, including Light and Noise Pollution

6.3.7 Tranquillity is an important aspect of landscape character and quality of life. Tranquillity can be defined as freedom from the noise and visual intrusion, including light pollution, associated with developed areas, roads, transport and traffic, and areas with intensive recreational activities and other uses that contribute to disturbance.

6.3.8 The Campaign to Protect Rural England (CPRE) has developed a new methodology to measure tranquillity within England[97]. CPRE commissioned researchers to carry out a nationwide survey to test what tranquillity means to people, and identify their perceptions of what factors were most likely to add to and to detract from their sense of experiencing tranquillity when they visited the countryside. Using Geographical Information Systems (GIS) model, this survey information was associated with a range of national datasets and took account of topography to create a nation-wide map revealing the likelihood someone would experience tranquillity in any locality. This tranquillity mapping forms a baseline against which, changes in tranquillity within the AONB can be measured.

Indicator C - Changes in Vegetation Mosaics

6.3.9 General information on the extent or patterns of vegetation mosaics in the landscape across the AONB is provided within the Ecological Character section of each defined Landscape Character Type (Section 4.0). This may provide useful baseline data for judging changes.

Selecting Sample Views

6.3.10 The selection of sample views for monitoring changes should reflect the nature of the indicator being monitored, and agreed with relevant key stakeholders as appropriate. For indicators A and C, a sample view should be identified within each of the 13 Landscape Character Types as a minimum (with the larger units having a greater number of sample views to reflect geographical variations as appropriate). In relation to indicator B, sample areas within Areas

[97] http://www.cpre.org.uk/campaigns/landscape/tranquillity

Landscape Character Types where the likelihood of experiencing a reduction in tranquility should be identified.

Evaluating Landscape Change

6.3.11 It is advisable that the four CQC evaluation categories in Section 5.2.2 above are adopted, in a modified form, to determine the significance of observed changes in a sample view using the above indicators. This will help facilitate a consistent approach to reporting and understanding landscape change between the JCA and AONB scales. The modified categories for the AONB are shown in Table 4 on the following page.

Table 4: Modified CQC evaluation categories

	OBSERVED CHANGE CONSISTENT WITH GUDIELINES	OBSERVED CHANGE INCONSISTENT WITH GUIDELINES
STABLE CHARACTER	**Maintained:** if the character of the Landscape Character Type is already strong and largely intact, and the observed changes serve to *sustain* it, or simply because the lack of change means that the important qualities are likely to be retained in the long term.	**Neglected:** if the character of the Landscape Character Type has been *weakened* or *degraded* by past change, and the changes observed do not have the effect of restoring the desired qualities that make the Landscape Character Type distinct. The Landscape Character Type is also described as 'neglected' if significant opportunities to restore or strengthen its character remain
CHANGING CHARACTER	**Enhancing:** if the changes tend to restore the overall character of the Landscape Character Type, or to *strengthen* it.	**Diverging:** if the change appears to be *transforming* the character of the Landscape Character Type so that either its distinctive qualities are being *eroded*, or significant new patterns are emerging

6.3.12 For each sample view, judgements about the magnitude of observed change ('stable' or 'changing') and its direction ('consistent' or 'inconsistent' with the relevant guidelines) need to be made by an assessor with good working knowledge of the Landscape Character Assessment

and Guidelines, and also the AONB's landscapes. The results from this process need to be recorded on a standard sample view proforma, and subject to review and moderation by key stakeholders as appropriate. The frequency of monitoring should be informed by the nature of the indicator, the type of change(s) anticipated and available resources.

6.4 Next Steps

6.4.1 There is a need for further work to implement a strategy for monitoring landscape change within the AONB. Suggested key actions include:

- Identification of sample viewpoints (as set out within 6.3.10) by an assessor with a good working knowledge of the AONB's landscapes. Background information could potentially be gained from discussions with statutory and community stakeholders about locations where change is perceived to be occurring.
- Selection of proposed key indicators to be measured (chosen from the list set out within Table 3 above).
- Selection of methodology to be implemented to measure key indicators and frequency at which measurements will be taken. This may include, for example, the use of fixed point photography from sample viewpoints, or methods to measure the length/condition of features such as stone walls or hedgerows.
- Allocation of resources to carry out measurements: Alongside a trained assessor, there is potential for involvement from local voluntary or community groups.

6.4.2 As set out within the Landscape Strategy for Lancashire[98] (which covers a large proportion of the Study Area), potential existing useful baseline sources of information for monitoring landscape change, to be read alongside this Landscape Character Assessment include:

- Lancashire County Council Aerials survey: There may be scope to compare with earlier surveys or future surveys to be undertaken;
- Natural England habitat surveys and records for SSSI's, nature reserved and designated areas, as well as data from a range of nature conservation initiatives within the AONB;
- Environmental Stewardship Records: The number and types of applications for landscape management grants over a certain time period;
- Forestry Commission Records – including the number of applications for Woodland Grant Schemes;
- Lancashire Pond Loss Survey;
- Biological Heritage Site database and annual review.

[98] http://www.lancashire.gov.uk/environment/landscape

APPENDICES

APPENDIX A:
THE PROJECT BRIEF

Brief for Forest of Bowland Area of Outstanding Natural Beauty
Landscape Character Assessment

Introduction

Lancashire County Council (LCC) would like to commission consultants to undertake a Landscape Character Assessment for the Forest of Bowland Area of Outstanding Natural Beauty (AONB), updating and improving the existing study. The study will inform the management of the area and will be available for use by partners, stakeholders and communities. The study is being joint funded by Natural England (NE), Forest of Bowland AONB and Lancashire County Council.

Background

The Forest of Bowland AONB is a nationally protected landscape and internationally important for its heather moorland, blanket bog and rare birds. The AONB is managed by a partnership of landowners, farmers, voluntary organisations, wildlife groups, recreation groups, local councils and government agencies, who work to protect, conserve and enhance the natural and cultural heritage of this special area. For more information regarding the Forest of Bowland AONB, visit the website at www.forestofbowland.com.

The Countryside and Rights of Way Act (CRoW) 2000 placed a statutory duty on local authorities to prepare a plan for AONBs in their areas and review the plans every five years. In addition the CRoW Act also places a duty on public bodies and others, to have regard to the special purposes of the AONB designation.

In 2006 the UK formally ratified the European Landscape Convention, which brings a commitment to

- recognise landscapes in law as an essential component of people's surroundings, an expression of the diversity of their shared cultural and natural heritage and a foundation of their identity;
- to establish and implement landscape policies aimed at landscape protection, management and planning;
- to establish procedures for the participation of the general public, local and regional authorities and other parties;
- to integrate landscape into regional and town planning policies and also cultural, environmental, agricultural, social and economic policies, as well as in any other policies with possible direct or indirect impact on landscape;

- and to establish and implement landscape policies, establish procedures for stakeholder participation and integrate landscape into broader policy.

In October 1999, Environmental resources Management (ERM) were commissioned to undertake a comprehensive and integrated landscape assessment of Lancashire including the urban areas and to produce a landscape strategy informed by the landscape character assessment process. The overall study consists of two separate reports: a Landscape Character Assessment and a Landscape Strategy. This first report, the LCA, is an objective description and classification of the Lancashire landscape. It forms the basis for the evaluation and guidance provided in the landscape strategy. These studies include the Forest of Bowland AONB and will continue to be used to guide landscape planning and management. However, these studies have been carried out at a county scale and the new draft management plan identifies a need to carry out a more detailed assessment that takes account of local distinctiveness in the AONB.

Copies of the Landscape Character Assessment and Strategy are available at http://www.lancashire.gov.uk/environment/landscape/index.asp and at http://mario.lancashire.gov.uk/

Carrying out a LCA is an action in the draft AONB Management Plan for 2009-2014.

Aims

To provide an up-to-date and detailed *District level* Landscape Character Assessment (LCA) of the whole of the Forest of Bowland AONB area using Lancashire County Council's LCA as a framework.

The LCA will be used to:

- inform the development and implementation of AONB Management Plan policies, conservation and grant aid schemes and land use planning policies;
- act as a tool for spatial planning use within the AONB;
- assist with the assessment of individual planning applications
- understand a location's sensitivity to development and change
- develop future strategies for conserving and/or enhancing the landscape, local distinctiveness and sense of place;
- help formulate priorities and prescriptions for land management advice offered by the AONB and partners
- provide an assessment that can inform and respond to other landscape, cultural and historical strategies.

- engage with partners and communities to improve understanding of the character of the AONB's landscape
- monitor landscape change within the AONB

Objectives

- Undertake a Landscape Character Assessment (LCA) involving desk study, field survey, identification, mapping, classification and description of landscape character types and areas.
- Identify key environmental features, forces for change, landscape sensitivity and capacity for change, make recommendations, develop guidelines and identify targets for identified landscape character types and areas to inform the future development of landscape policy, management plans and landscape strategies;
- Involve a range of communities, partners and stakeholders in the development of the LCA.

Scope of study

The LCA should cover the whole of the Forest of Bowland AONB area. It should also clarify and identify where landscape types and areas continue outside the AONB boundary, and consider areas which are key to the setting of the AONB.

It should take into account the most recent planning policies, strategies and guidance available including PPS 1, PPS 7, PPS 22, the emerging RSS, landscape character assessment guidance and topic papers produced by the former Countryside Agency, National Joint Character Areas, draft and emerging LDF policies and strategies, Historic Landscape Characterisation for the area, Forest of Bowland AONB Management Plan 2004-2009 and draft Forest of Bowland AONB Management Plan 2009-2014, relevant published landscape character assessment work including the Countryside Character study (former Countryside Commission), The Countryside Quality Counts Initiative, Lancashire County Council's *A Landscape Strategy for Lancashire* and the *Landscape and Heritage SPG* and any other relevant guidance/studies including those relevant to North Yorkshire.

It should take into account the findings of recent developments in landscape characterisation particularly integrated characterisation studies, which give equal weight to landscape character, biodiversity, historic character, air and water quality, recreation and accessibility.

During the contract period, Natural England will be developing a regional landscape character framework. The consultants will be expected to liaise with the Natural England consultants undertaking this work to ensure compatibility between the methodologies used, where possible.

Methodology

The consultants will be expected to develop a detailed methodology for the LCA based on guidance provided in *Landscape Character Assessment, Guidance for England and Scotland (the Countryside Agency and Scottish Natural Heritage, 2002)* and its accompanying *Topic Papers*.

The LCA must use as a starting point the landscape character assessments produced by the former Countryside Agency and Lancashire County Council: consultants should make clear how this will be achieved.

The LCA should consider the landscape character of villages and other settlements in the AONB area in terms of their broad character and relationship to the wider landscape. A full detailed townscape study and identification of key features, local forces for change or strategies will not be required.

Requirements of the contract

The consultants will be required to:

1. General

Confirm the timetable, methodology, consultation requirements, milestones and outputs with a project steering group led by representatives from the AONB and including landscape specialists from Lancashire County Council and Natural England.

2. Desk Study

Complete a desk study which includes overlay mapping to review all relevant source materials including the existing studies. Material should be compiled onto detailed survey forms. All geographical data should be assembled in a Geographical Information System which must be compatible with the system used by LCC (ArcView). An approach should be used that provides an appropriate level of detail to meet the aims and objectives of the study and supports the approach to field survey and data collection that the consultants propose. It should lead to initial ideas about the definition of types and areas of common character. Wherever possible the desk study will involve officers from the AONB and should draw on available local expertise. The results of the desk study analysis should be recorded in the Geographical Information System.

3. Field survey

The field survey component of the work should serve to test and refine the types and areas of common character, inform the written descriptions of the landscape, and identify and record any aesthetic or perceptual characteristics that cannot be identified as part of a desk study. The

field survey should also aim to note the relationship and contribution of buildings and other structures to landscape character. The field survey team should be made up of experienced and competent surveyors and provision should be made to utilise officer time from the AONB unit and LCC specialist support staff, whilst ensuring that consistency is maintained. The field survey findings should preferably be captured electronically, for example through the use of data loggers in the field. Consultants will need to describe how they propose to do this in as cost-effective a way as possible. Digital photographic records will also be required, as an essential part of the field survey process. Records for each photograph should include the following: national grid reference (12 figures) and bearing, date, zoom and a description of the image and reference to the appropriate survey record.

4. Consultation

Devise and run a minimum of two events (each being a self-contained workshop) to involve relevant stakeholders from the AONB partnership and local communities. The events should serve to examine draft landscape character types and areas and to contribute to the understanding of forces for change, sensitivity and capacity for change in the landscape and the ways in which these will lead to the development of landscape guidelines and, ultimately, strategies. Workshops should be held at a variety of locations within the AONB and focus on locally relevant landscapes.

5. Classification and description

This part of the work should complete the characterisation process by identifying, mapping, and classifying the landscape into appropriate landscape character types and areas. This will be achieved by using the data collected to map their extent and provide clear and concise written descriptions of their character. Such descriptions should recognise other relevant factors recorded as part of the field survey and provided by AONB officers and members of partner and stakeholder organisations and communities. The future use of the LCA to inform other strategies and guidelines should be closely considered here. GIS should be used to aid both the statistical and manual analyses of the landscape. Landscape descriptions should be stored electronically, with appropriate inter-linkages.

For each landscape type the following should be provided:

- A description of the landscape character which includes an identification of key characteristics, ecological, physical and human influences.
- A description of the character area(s) within the landscape character type identifying key characteristics and characterising local distinctiveness.
- Location map and photographs for the type and each area within it.

Ideally the areas should be nested within the types to give a hierarchical structure, dovetailing with the national Joint Character areas. If this does not prove possible, a clear explanation needs to be provided.

6. Forces for change and landscape guidelines

Following the classification process, the forces for change (including past changes, current issues and future trends), sensitivity and capacity for change for each landscape type and area should be identified. Tender documents should outline what issues might be anticipated in identifying and dealing with forces for change etc. The identified forces for change etc. will then be used by the consultant to propose relevant landscape guidelines and targets. These will be used at a later date to inform the development of appropriate landscape strategies for the AONB. (This work needs to be carried out in a transparent manner with specific criteria identified. There must be a clear link between the landscape characterisation, stakeholder consultation and the forces of change identified.)

7. Outputs

Draft report

The LCA must be presented initially as a draft report that can be edited and commented upon by the Project Steering Group, AONB partnership staff, the Forest of Bowland Joint Advisory Committee and other relevant stakeholders including local communities.

The draft report should contain a contents breakdown, descriptions of the methodology, and the landscape types and areas provisionally identified, identify forces for change, sensitivity and capacity for change, and the ways in which these can be used to develop appropriate landscape guidelines, identify targets and should include GIS mapping. Two hard copies and, two electronic versions of the report, in both word and PDF format should be supplied. Consultants will be required to collate all the comments received and to make alterations to respond to them, including resolution of any conflicting comments. This process must provide an appropriate audit trail, demonstrating what comments have been made, how they have been taken into account or giving reasons why they have not been accommodated.

Final report

The LCA should be supplied as an electronic version in both word and PDF format and should include GIS data. The report should be prepared to a high graphical standard utilising the Forest of Bowland brand guidance and should be engaging, fully illustrated and accessible to all. Five hard copies of the final report are required.

GIS data

GIS data should be supplied in ESRI Shapefile format and in MapInfo format. If a linked database is used it should be in Microsoft Access format (use of ArcView geodatabases would also be considered).

Metadata

To allow users to interpret and use the data correctly, care must be taken to ensure that sufficient metadata is supplied with any LCA datasets. Metadata should follow the UK GEMINI Profile (www.GIgateway.org.uk). It is particularly important that categories and technical terms used in the database are clearly defined in the metadata. It is also vital that the purpose and scale of the study are described and that contact details for the owner of the dataset are clearly identified. Metadata will be created for each GIS layer forming part of the final report. Metadata will include all the mandatory elements defined within UK Gemini (version 2.1) and shall, in addition, include a description of each field within the attribute data.

A record describing the LCA should be completed in the Database of Landscape Character Assessments in England, which is accessible via the Landscape (previously Countryside) Character Network website. The database is structured into three main sections.

- Basic information about the LCA including the name, date, geographical extent and access details
- Summary of the LCA methodology
- Description of any existing or proposed applications of the LCA

Consultants will be required to complete at least the first two sections describing the basic information about the LCA and summary of the LCA methodology. A half day of consultancy time should be allocated to this task. The online collection tool can be found on the Countryside Character Network website (www. landscapecharacter.org.uk).

CD

Five copies of a CD should be supplied containing all project outputs. The CD should be suitable for circulation by the AONB.

8. Management

The Landscape Character Assessment (LCA) is seen as a joint project between the successful consultant and the AONB partnership.

A lead officer from the AONB will be able to work with the consultants on the study and at this stage it is anticipated that the equivalent of at least 8 working days will be available. Consultants should allow for this involvement in their tender preparation and costing.

It is further anticipated that key AONB partnership staff will also be available to provide information and support and 2 days field work in order to generate ownership of the outputs and outcomes. Consultants should allow for this involvement in their tender preparation and costing. The tender should include details of how you will be able to increase the understanding of AONB staff in the LCA process by maximising opportunities for work shadowing or training (although this aspect will not be a major part of the contract).

A maximum of 4 meetings with the project steering group should be costed into the contract, to be held at the Preston offices of the AONB unit, to include:

1. Initial meeting to agree process, methodology, timetable, milestones, workshop outline and content, and outputs.
2. Interim meetings to assess milestones met
3. Final meeting and presentation on completion of workshops and final report (March 2009)

The chosen contractor will be required to liaise in the first instance with Don McKay at the AONB Unit in Preston.

The successful consultant shall indemnify Lancashire County Council against all claims in respect of injury to persons and property arising out of the execution of the contract. Evidence of public liability and professional indemnity insurance cover and premiums paid should be enclosed with your submission. Public liability insurance cover should not be less than £5,000,000 per claim with no limit to the number of claims.

Copyright and ownership of the report and any digitised information and photographs produced will rest with Lancashire County Council and Natural England.

9. Health and Safety

The successful consultant will be expected to comply with current Health and Safety legislation, regulations, codes of practice and guidance.

Soon after being appointed the consultant will be required to provide detailed risk assessment(s) and health and safety work method statement(s) for the field survey work. **The field survey work cannot be undertaken until these key health and safety documents have been assessed and approved by Lancashire County Council**.

11. Timescale

The draft reports and CDs should be submitted by 20th February 2009

The full, final reports and CDs should be submitted by 20th March 2009.

It is expected that the LCA will be completed, signed off and all invoices processed by 31st March 2009.

APPENDIX B:
ACKNOWLEDGEMENTS

This Study was undertaken on behalf of a partnership of organisations comprising the Forest of Bowland AONB Unit, Lancashire County Council and Natural England by Chris Blandford Associates (CBA). CBA would like to thank the Client Commissioning Group for their guidance, support and inputs including:

- Don Mckay – Forest of Bowland AONB Unit
- Cathy Hopley – Forest of Bowland AONB Unit
- Tarja Wilson – Lancashire County Council
- Steven Brereton – Lancashire County Council
- Susannah England - Natural England

The consultants wish to acknowledge the inputs and assistance provided by the many stakeholder organisations and individuals who contributed to the preparation of the Study (see **Appendix F** for details).

The consultants also wish to acknowledge the following external specialist inputs:

- Nigel Neil (Archaeologist) – Inputs to Section 2.3, including specific information on Medieval Deer Parks and vaccaries within the AONB
- James Riley – Inputs to Section 2.3, including specific information on local vernacular settlements and buildings within the Study Area
- Sue Flowers (Artist) – Sketches of Landscape Character Types

The following Countryside Officers from Lancashire County Council contributed useful local knowledge to the process via several field visits, accompanying the CBA team of assessors:

- Tarja Wilson
- David Padley
- David Oyston

The core CBA Project Team comprised:

- Dominic Watkins
- Emma Clarke
- Chloé Cova
- Sarah De Vos

APPENDIX C:
METHODOLOGY

Overview

The overall approach for undertaking the Landscape Character Assessment (LCA) is based on the latest published national guidance[99], taking into account current best practice.

Landscape Character Assessment addresses both the analytical process of character assessment (or 'characterisation'), which involves identifying, mapping, classifying and describing landscape character; and the process of evaluating forces for change and sensitivities and capacity for change in the landscape, and developing guidelines for managing landscape change.

In summary, the key steps involved in the process involved:

Character Assessment

- Stage 1 – Inception and Information Scoping
- Stage 2 – Desk Study
- Stage 3 – Field Survey
- Stage 4 – Classification and Description

Evaluation

- Stage 5 – Preparation of Forces for Change and Landscape Guidelines
- Stage 6 – Preparation of Overall Report and Outputs

Character Assessment Methodology

Stage 1 – Inception and Information Scoping

This preliminary stage involved the following main tasks to scope the information available for the Study:

- Confirming the Scope of work with the Client Commissioning Group;

[99] Landscape Character Assessment – Guidance for England and Scotland (Countryside Agency/Scottish Natural Heritage, 2002).

- Identifying and reviewing existing landscape character assessment information in and around the AONB (including the Lancashire Landscape Character Assessment and Strategy);
- Identifying shortfalls in coverage and detail of existing landscape character assessment information, and determining further assessment work required where necessary to provide an appropriate level of information for incorporation into the LCA.

Stage 2 – Desk Study

This stage involved desk-based research to identify the physical, human and cultural factors that have influenced the shape and use of the landscape. This work drew on a variety of documents, maps and digital data that describe the physical geography and cultural history of AONB (see Appendix D and footnotes throughout the document for details of the main sources of information used to inform the Study). The desk research also identified the forces for change affecting the character of the AONB's landscape.

In summary, the desk-based research involved:

- Review of relevant published national and local landscape character assessments within and around the AONB - including the relevant National Joint Character Areas from the Character of England Map, the Lancashire Landscape Strategy, Craven District Landscape Character Assessment and the Yorkshire Dales Landscape Character Assessment;
- Overlay mapping of available geographical datasets (using GIS) related to the physical environment to inform the preliminary definition of landscape character units;
- Analysis of the Lancashire Historic Landscape Characterisation (HLC) datasets to inform the definition of Landscape Character Types and areas, and identify the key historic land use features in the present day landscape;
- Discussions with staff from the client commissioning partners organisations to obtain local knowledge to contribute to the information gathering exercise;
- Review and analysis of OS maps (1:25,000 scale);
- Identification of landscape character unit boundaries including initial definition of draft Landscape Character Types and Areas for validation in the field;
- Compilation of desk study analysis onto field survey forms for validation in the field.

Stage 3 – Field Survey

Fieldwork involved assessing how the following different features and elements combined to create distinctive patterns in the landscape (see **Appendix E** for Field Survey Pro Forma);

- physical influences:

*landform

*elevation

*rivers and drainage pattern

- human influences:

*land use

*land cover

*woodland pattern

*field patterns and boundaries

*communications

*settlement pattern

*built/architectural character

*aesthetic/perceptual characteristics

*sense of tranquillity

*movement

*notable effects of light

*visual character – skylines and key views

Field Survey forms were completed for each defined Landscape Character Type by a team of field assessors. Several field survey visits were also undertaken with Countryside Officers (Lancashire County Council), in order to incorporate their invaluable local knowledge into the process.

The fieldwork also considered the following aspects to inform the evaluation and guidelines preparation stage:

- landscape condition/intactness
- landscape pressures and sensitivities

This survey information (including photographs) was used to inform the descriptions of landscape character and to test and refine the preliminary landscape character unit boundaries. The field survey included the collation of digital photographic records. The completed field survey forms were input into a database.

Stage 4 - Characterisation

The characterisation stage involved the combination of the findings from the desk study research and field survey analysis to inform a classification (at a scale of 1:25,000) of the landscapes within the Study Area into.

- *Landscape Character Types* – generic units of landscape exhibiting a distinct and relatively homogenous pattern of similar physical and cultural attributes, including, geology, landform, land use and historical evolution.

- *Landscape Character Areas* – discrete geographical areas with a distinct and recognisable pattern of elements and perceptual qualities such as scale, pattern, and cultural associations which are unique. The Landscape Character Areas next within the relevant Landscape Character Types to give a hierarchical structure, dovetailing within the Lancashire County classification and the national Joint Character Areas.

This dual approach to defining Landscape Character Types and Landscape Character Areas was adopted in order to achieve the level of detail required by the Project Brief (see **Appendix A**). The Landscape Character Types provide a spatial framework within which generic forces for change, land management issues and guidelines for managing landscape change can be developed – such as 'Moorland Plateaux' for example.

Landscape Character Types

Thirteen Landscape Character Types were defined by desktop analysis of the existing Landscape Character Types defined at 1:50,000 scale within the Lancashire County Landscape Character Assessment and distinctive patterns of physical and cultural attributes (within the Forest of Bowland) derived from available datasets and maps related to:

- Physical character (geology, landform, hydrological patterns)
- Ecological character and land cover
- Cultural and historical character land uses/settlement patterns

The Landscape Character Types occur in different areas of the AONB. Examples include:

- Moorland Plateaux (Type A)
- Undulating Lowland Farmland (Type F)
- Wooded Rural Valleys (Type J)

The mapped extents of the Landscape Character Types reflect variations in the complexity and pattern of underlying characteristics across the Study Area identified through the characterisation process. For completeness, the full extents of LCTs straddling the AONB boundary were mapped.

Landscape Character Areas

Within the broad pattern provided by the 14 Landscape Character Types, 82 Landscape Character Areas were defined in the field on the basis of judgements about their:

- distinctiveness as unique landscapes/places
- distinctive aesthetic and perceptual (experiential) characteristics
- local distinctiveness and sense of place.

For completeness, the full extents of Landscape Character Areas straddling the AONB boundary were mapped. In these cases, although the relevant descriptions only relate Landscape Character Areas outside of the Park are addressed where appropriate. The Landscape Character Areas nest within the Landscape Character Types.

As acknowledged by the latest published national guidance[100], landscape is a continuum and character does not in general change abruptly on the ground. More commonly, the character of the landscape will change gradually rather than suddenly, and therefore the boundaries between landscape character units should be considered to reflect zones of transition in many cases.

Description of the Landscape Character Types

For each defined Landscape Character Type, its boundaries were mapped and its character described (and illustrated where appropriate) under the following headings:

Location

A short paragraph detailing location of the Landscape Character Type in relation to the AONB and adjacent Landscape Character Types

Landscape Character Description

A summary of the overall landscape character of the Landscape Character Type

Key Environmental Features

Physical Character

A summary description of geology/soils, landform, hydrology and land cover elements that contribute to character.

[100] Landscape Character Assessment – Guidance for England and Scotland (Countryside Agency/Scottish Natural Heritage, 2002).

Ecological Character

A summary description of ecological habitats and their relative nature conservation importance that contribute to character, by reference to designated sites citations and the distribution of designated sites.

Cultural and Historical Character

A summary description of the main cultural associations and historical features that contribute to character, by reference to the historic landscape characterisation data and distribution of designated assets.

Settlement and Building Character

A bullet point list of the main settlement forms/origins and patterns, building styles and vernacular materials that contribute to character, by reference to fieldwork, research and existing assessments.

The descriptions were based on research, fieldwork observations and the local knowledge of staff from the client commissioning partners organisations.

Description of the Landscape Character Areas

The boundaries of each Landscape Character Area were mapped and a bullet point list of the Key Characteristics that contribute to the unique local sense of place and distinctiveness was written.

The above Key Characteristics focus on identifying both the aesthetic aspects (such as scale, enclosure, diversity, unity, texture, form, line, colour, balance/proportion, movement, pattern), and perceptual aspects that contribute to the character of the landscape (such as sense of wildness/remoteness, the quality of light and perceptions of beauty or scenic attractiveness).

Evaluation Methodology

Stage 5 – Evaluation and Guidelines preparation

The process involved evaluating forces for change and sensitivities and capacity for change in the landscape. These judgements were used to develop guidelines that highlight needs and opportunities for managing landscape change to inform land use planning and land management decisions

The evaluation and guidelines are presented at the end of the description or 'profile' for each Landscape Character Type.

The evaluation process was based on research, fieldwork observations and the local knowledge of staff from the client commissioning partners organisations.

Evaluation of the Landscape Character Types

Each Landscape Character Type is evaluated as follows:

- *Forces for Change* – a concise description of the current landscape condition: how the intactness of the different components create a perception of the overall current condition of the landscape and a separate bullet point list of the positive and negative future changes and opportunities that are considered likely to affect the landscape over the short term (5 years) and long term (20 years +).
- *Sensitivities and Capacity for Change* – a short paragraph summarising the key positive attributes that are judged to be inherently sensitive and providing a judgement on the capacity of the overall Landscape Character Type to accommodate change.

Current Landscape Condition

In order to assess any landscape's potential ability to adapt to change, it is necessary to analyse the integrity, robustness or condition of elements which contribute to landscape character. The following factors were considered during field survey for each Landscape Character Type, to culminate in an assessment of overall condition (ranging from poor to moderate to good):

- Age structure and robustness of tree cover;
- Extent of semi-natural habitat survival;
- Survival of cultural pattern;
- Impact of land use change.

This evaluation, alongside the evaluation of sensitivities and capacity for change, fed into the development of guidelines for managing landscape change, with a view to conserving areas of good condition and encouraging positive change in landscapes of poor condition.

Evaluation of Landscape and Visual Sensitivities

The methodology for evaluating the intrinsic landscape and visual sensitivities of each defined Landscape Character Type to change was based on the criteria for judging sensitivity set out in an accompanying paper to the Countryside Agency's Landscape Character Assessment –

Guidance for England and Scotland[101], taking into account current best practice. This evaluation involved a strong degree of professional judgement in distilling out the landscape character and visual qualities that are sensitive to change. The judgements recognise that some attributes of the landscape may be more important in defining character than others and may therefore be more sensitive in relative terms.

Topic Paper 6[102] states that overall landscape sensitivity of a character type or area to development is a function of two aspects:

- Landscape character sensitivity; and
- Visual sensitivity.

Landscape character sensitivity is defined in this study as 'the degree to which a particular Landscape Character Type' is vulnerable to change with potentially adverse effects on its character'.

Visual sensitivity is defined in this study as 'the degree to which a particular view or visual experience is vulnerable to change with potentially adverse effects on its character'.

It should be noted that the sensitivity evaluation was based on the relatively broad-brush analysis undertaken at 1:25,000 scale for the Study. Also, the degree of sensitivity is not absolute and it would vary according to the nature of change under consideration; it is therefore only indicative.

Evaluation of Capacity for Change

The judgement of landscape capacity used the information on the sensitivity of landscape character and visual characteristics, together with information on landscape values, to draw out the potential constraints and opportunities for development within the Landscape Character Type. Landscape value is taken from the relative conservation values attached to different aspects of the landscape as reflected by ecological, cultural heritage and other designations.

Whist the assessment draws logically from the characterisation and evaluation information set out in the Landscape Character Assessment study, it should be noted that the capacity assessment is a judgement and is not a scientific absolute.

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[101] Landscape Character Assessment – Guidance for England and Scotland : Topic Paper 8 – Techniques and Criteria for Judging Capacity and Sensitivity (Swanwick, 2004).

[102] Landscape Character Assessment – Guidance for England and Scotland: Topic Paper 6 – Techniques and Criteria for Judging Landscape Capacity and Sensitivity (Countryside Agency/Scottish Natural Heritage, 2002).

In line with the Study's aims and objectives and intended applications, it should be noted that the guidance is based on an assessment carried out at a 1:25,000 scale. The guidance is therefore indicative, and is only intended to inform consideration of development in broad terms. Further studies at more detailed scales will be needed to examine site-specific sensitivities and development capacity issues.

Guidelines for Managing Landscape Change in Landscape Character Types

The guidelines comprise a concise statement setting out the overall management strategy for the Landscape Character Type, supported by a bullet point list of specific guidelines for managing landscape change for the overall Type.

Stage 6 – Preparation of Overall Report

This final stage involved preparation of the overall report. This included the development of a framework and indicators for monitoring change in the landscape character of the AONB, taking into account the national approach to monitoring Joint Character Areas developed by the Countryside Quality Counts study.

Stakeholder and Public Consultation Methodology

Major landowners and managers, statutory agencies and other key stakeholder organisations have been involved in the process of developing the Landscape Character Assessment. The feedback from consultation has helped to strengthen the evidence base by incorporating the views of both communities of interest and place. Engaging stakeholders in the project has also helped promote awareness of the value of the Landscape Character Assessment and Guidelines as a tool for informing planning and land management decisions.

The process involved consulting organisations within the AONB Partnership and other key stakeholder groups through two workshops and discussions (see **Appendix F** for details).

APPENDIX D:
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APPENDIX E:

FIELD SURVEY PRO FORMA

LANDSCAPE CHARACTER TYPE	**No:**		**Name:**	
Date:				
Time:				
Weather:				
Assessor				
Photographs:				
National Grid Reference (12 Figures)				
Bearing				
Zoom				
Description of Image(s)				

CHARACTER ASSESSMENT

Landform							
Flat		Rolling		Undulating		Steep Slopes	
Gentle Slopes		Floodplain		Hills		Escarpment/Spur	
Plateau		Broad Valley		Narrow Valley		Shallow Valley	
Deep Gorge		Lowland		Dry Valley		Ridge and scarp	
Limestone outcrops		Gritstone outcrops		Drumlins			
Dominance/ extent of Landform							
Rivers/Drainage							
River		River Meanders		Large boulders in river		Gravel riffles	
Stream		Spring		Flooded gravel pits		Lake	
Man made pond		Bog/wetland		Drainage channels		Drainage ditches	
Locks/weirs		Water wheels		None apparent		Reservoir	
Moorland Grips		Natural pond		Flashy upland streams		Slow moving water within stream/river	
Land Use/Land Cover							
Arable Farmland		Pastoral Farmland		Mixed Farmland		Forestry	
Industrial		Leisure/ recreation		Commercial		Active mineral workings	
Disused mineral workings		Improved grassland		Rough grassland		Wet meadow	

Amenity grassland		Deciduous woodland		Mixed Woodland		Woodland belts	
Scattered trees		Heathland		Scrub		Gardens	
Deer Parks		Remnant parkland features		Paddocks		Peat Bog/Mire	
Moor/Heath		Shelterbelt		Isolated trees		Coniferous woodland	
Orchard		Heath/Heather Moorland		Blanket Bog		Acid Grassland	
Marsh		Meadow		Horsiculture		Set Aside	
Sports Fields		Common					
Dominant Land Cover Pattern							
Woodland Pattern							
Hedgerow trees		Orchards		Copses		Forestry	
Straight edged woodland		'Natural' edged woodland		Scattered parkland trees		Large woodland blocks	
Deciduous		Coniferous					
Field Pattern							
Open		Regular		Irregular		Enclosed	
Large Fields		Geometric		Small Fields		Medium Fields	
Metal Railings		Ditches		Boundary Trees		Pedestrian aqueduct gates	
Ornate estate gates		Field gates		Estate walls		White railings along road corridors	
Dominant Field Boundary Pattern							
Field Boundaries							
Tall hedgerows		Beech hedges		Hedgerow trees		Stone walls	
Medium hedgerows		Low hedgerows		Mixed Species Hedgerows		Remnant hedgerows	
No hedgerows		Banks		Gritstone Drystone walls		Fences	
No boundaries		Limestone Drystone walls		Remnant Drystone walls		Walls with through stones	
Stone walls built from river boulders							
Communications							
Motorway		Dual carriageway		Rural road with boundaries		Track	
Sunken Lane		Bridleway		Footpath		Railways	

Pylons		Overhead Electricity Cables		National Trail		Communication masts	
Group of wind turbines		None apparent		A roads		Rural road without boundaries	
Single turbine							
Settlement Pattern							
Nucleated		Linear		Dispersed/ scattered		No settlement	
Built/architectural character							
Limestone buildings		Timber framed		Brick		Modern	
Gritstone buildings		Pumping stations		Caravan sites		19th century water industry related buildings	
Farmsteads		Village		Hamlet		Town	
Slate		Thatch		Tile		Traditional	
Country house		Ecclesiastic		Field Barns		Follies	
Estate Villages		Shooting huts/butts		Paper/cotton mills		Industrial Hamlets	
Dominant settlement/Built Elements							
Predominant colours of window sills and door frames/village							
Aesthetic/Perceptual aspects							
Scale							
Intimate		Small		Medium		Large	
Texture							
Smooth		Textured		Rough		Very rough	
Enclosure							
Expansive		Open		Enclosed		Contained	
Stimuli							
Monotonous		Bland		Interesting		Inspiring	
Sense of tranquillity							
Very strong		Strong		Moderate		Low	
Inaccessible		Remote		Vacant		Busy	

Sense of apparent wildness							
Movement							
Dead		Still		Calm		Busy	
Colour							
Monochrome		Muted		Colourful		Garish	
Woodland colours		Heather/gorse in bloom					
Unity							
Unified		Interrupted		Fragmented		Chaotic	
Skylines (line, form)							
Notable effects of light							
Scents							
Key Views (to, from, panoramic, contained, open, long distance, short distance).							
Key Characteristics Summary of the key features (including aesthetic and perceptual characteristics) that contribute to the character of this Type and make it different from surrounding landscapes. [Bullet points]							
Key Characteristics of Landscape Character Areas							
Name/No.							
Name/No.							
Name/No.							

Name/No.							
Name/No.							
EVALUATION							
Current Landscape Condition							
Poor		Moderate		Good			
Description of the condition of landscape features and elements such as field boundaries, woodland, visual detractors.							
Identified landscape pressures and sensitivities							

APPENDIX F:

RECORD OF STAKEHOLDER AND COMMUNITY CONSULTATION

FOREST OF BOWLAND AREA OF OUTSTANDING NATURAL BEAUTY LANDSCAPE CHARACTER ASSESSMENT

Notes of Workshop for Statutory Stakeholders

Location: **Slaidburn Village Hall**

Date: **Monday 2nd February 2008**

Attendees	Organisation
Nigel Neil	Neil Archaeological Services
Peter Iles	Lancashire County Council
Maurice Kettlewell	United Utilities
Nigel Pilling	United Utilities
Richard Atton	Natural England
Alison Boden	Natural England

Purpose of the Workshop

- To brief stakeholders on the Study and the emerging findings;
- To review and discuss the draft Landscape Character Mapping; and
- To identify forces for change and sensitivities as input to the development of landscape guidelines.

Format of the Workshop

Cathy Hopley (Forest of Bowland AONB Unit) welcomed everyone to the workshop and gave a short introduction to the project, explaining the need for commissioning the Landscape Character Assessment.

Emma Clarke (Chris Blandford Associates) provided an outline of the study's objectives, process and outputs. Emma then presented the draft map of Landscape Character Types and Areas for the Forest of Bowland (which represented the product of desk study and observations in the field), explaining how this fitted with the existing classification hierarchy provided by the national level Character of England Map and the county level Lancashire Landscape Classification. Group discussions then took place. A record of the key issues recorded from each discussion session is set out below:

Breakout Session 1 – Landscape Characterisation Mapping

Objective

To review the draft Landscape Typology Map, discuss names and identity aspects of 'local distinctiveness'.

Tasks

- Review the boundaries/location and names of the draft Landscape Character Types and Areas;
- Identify aspects of 'local distinctiveness'.

Feedback Recorded from Discussion Group

The Discussion Group annotated an AO map to of the Draft Landscape Character Types and Areas with suggested name and boundary changes, to reflect local distinctiveness.

Identified aspects of 'local distinctiveness' identified included:

Landscape Character Type A: (Unenclosed) Gritstone Moorland Plateaux

- Very strong sense of remoteness;
- High peaks
- Boulders on the edges of the plateaux;
- Views from the M6 corridor towards this Landscape Character Type (LCT) and from this LCT towards the M6 and Morecambe Bay
- Expansive skies and open space;
- Strong sense of openness;
- Blanket bog/heather is a key landcover;
- Cotton grass introduces colour into the landscape;
- The presence and sound of birds including golden clover, gulls, grouse, curlew;
- Agreement was reached that there was no clear visible distinction in the field between enclosed and unenclosed Gritstone Moorland Plateaux;
- Dark skies are a feature of most Landscape Character Types and Areas within the Forest of Bowland;

Landscape Character Type B: Enclosed Gritstone Moorland Plateaux

(Merge Type A with Type B)

- Agreement was reached that there was no clear visible distinction in the field between enclosed and unenclosed Gritstone Moorland Plateaux.
- The ring of fells provides a backdrop to views to and across this landscape.

Landscape Character Type C: Unenclosed Gritstone Moorland Hills

- Birdlife contributes to sense of place;
- Quarrying is a feature of the landscape;
- Water infrastructure is still visible within the landscape in places;
- Boundary stones – stones which are situated along road corridors;
- Named stone/named feature in some walls
- Roman road is a feature of the landscape;

- Landscape Character Area (LCA) C8: sledge tracks (Burn Fell/Beatrix) relating to past quarrying and peat cutting
- Deep folds on parts of Pendle;
- LCA C7: lead mining;
- Goodber Common is managed differently to other parts of the Central Bowland Fells;

Landscape Character Type D: Enclosed Gritstone Moorland Hills:

- LCA D1: quarrying is a visible landscape feature;
- Walls and hedges provide a sense of enclosure;
- Much of the fencing has taken place in the last 15-20 years;

Landscape Character Type E: Moorland Fringe

- Black gates
- Heather;
- Smell of burning
- Smell of heather when it is in flower
- Cotton grass introduces colour into the landscape;
- Windswept trees;
- Stone field barns;
- Intact network of stonewalls;
- Some beech within hedgerows
- Some pine trees;
- Sheep folds (gathering points for sheep herding);
- Wall structure for gathering sheep;
- Start of wooded cloughs (natural + for shooting);
- Conifer blocks, which are disappearing in places;
- LCA E2: previous coppicing evident
- LCA E5: lead mining
- Vaccaries are key features within parts of this landscape;
- Game management takes place within this type;
- Kilns around Downham;
- Distinctive types of hedge laying;
- Traditional vaccaries at Hare Appletree and Rowton Beck;
- Beatrix Fell is an old settlement site;
- Bleasdale and Abbeysetad are estate landscapes;
- Pendle – glacial valley without a river – hidden views within this landscape;

Landscape Character Type F: Undulating Lowland Farmland:

- Oak woodland which lines road corridors;
- Drove roads;
- Hedgerows are key features of this landscape.

Landscape Character Type G: Undulating Lowland Farmland with Wooded Brooks

- Black gates;
- Important industry e.g. at Wray utilising woodland trees;
- Hedgerow network is a key feature of this landscape;
- Wide lanes with large verges in places (width of lanes differs between character areas) are a very distinctive feature of the lowlands;
- Cheese Press Stones (e.g. at Chipping, Whitechapel)
- Industrial archaeology associated with Mills (remnants of about four)
- Sound of water

- Boulders clanging within the rivers;
- Differing colours of the seasons;
- Ancient semi-natural woodland
- History of coppicing by the brooks
- Differing tree canopy heights;
- Old deer park at Leagram – became Bowland with Leagram.

Landscape Character Type H: Undulating Lowland Farmland with Parkland

- Avenues and lines of trees are a key feature which were often designed to facilitate key views;
- Clumps of managed coppice woodland;
- Fencing/white railing;
- Stonyhurst historic park and garden/1690s avenue (important);
- Bridges;
- Stone carved heraldry;
- Woodland clumps surrounded by intact walls.

Landscape Character Type I: Farmed Ridges

- Isolated farms;
- Distinctive field patterns
- Stone walls between fields
- Ridges
- Area of woodland across the top of ridge

Landscape Character Type J: Wooded Rural Valleys

- Woodland;
- Coal mining (bell pits);
- Farmed land surrounds the river corridors;

Landscape Character Type K: Valley Floodplain

- Wet grass seasonally flooded
- Little occupation
- Farmstead on slightly raised ground
- Generally open (fences and hedges in places)
- Area K1 floods quite heavily
- Waders

Landscape Character Type L: Drumlin Field

- Characteristics are similar to those within the surrounding Yorkshire Dales landscape
- Network of distinctive limestone walls;
- Views out to Yorkshire Dale
- Old field boundaries, which follow the slopes (walls go along the slopes rather than up/across them);
- Archaeological sites on the top of drumlins.

Landscape Character Type M: Rolling Upland Farmland

- Biodiversity – this landscape has pockets of important ecological habitats;

Landscape Character Type N: Forestry and Reservoir

- Abandoned farmsteads (LCA N1)
- Reservoir valleys exist within the existing Lancashire Landscape Character Assessment;

- The village of Barley sits within a bowl and has reservoirs surrounding it, which are a key feature.

Breakout Session 2 – Evaluation of Key Issues/Forces for Change in the Landscape

Objective

Based on the framework of Draft Landscape Character Types, identify landscape issues/sensitivities and forces for change to feed into the development of landscape guidelines.

Tasks

- Highlight key landscape and visual sensitivities
- Highlight the main past and future forces for change.

Key Landscape and Visual Sensitivities

- Uncluttered views towards the Forest of Bowland are important;
- Traditional signage;
- Dark skies;
- Sense of tranquillity and remoteness;
- Upland flora;
- Rare bird species;
- Traditional boundary stones;
- Moorland Hills - mounds of stone near to roads;
- Stone towers related to pipelines (e.g. White Tower on White Hill);
- Sled tracks on Parlick and Wolf Fells, and Beatrix, which are associated with peat cutting and quarrying;
- Sheep folds;
- Wooded cloughs;
- Oak woodland within the lowland farmland that lines narrow road corridors;
- Cheese press stones at Bleasdale and Whitechapel;
- Lime kilns around Downham;
- Ancient and semi-natural woodland;
- Sound of water within the brooks;
- Differing canopy heights;
- Remnants of mills and associated structures;
- Coppiced woodlands at Bentham, Mewith and Roeburndale (LCA E2);
- Parkland fences;
- Browsholme, ha ha with farmland beyond;
- Leagram Hall;
- Parkland landscapes at Knowlmere and Dunmow;
- History of coppicing and iron smelting at Roeburndale;
- Small bell pits;
- Waders associated with the reservoirs;
- Distinctive styles of hedgelaying;
- Distinctive shapes and colours of the skylines;
- Backdrop of fells when viewed from the west and the distinctive shape of Pendle Hill.

Key Forces for Change

- Increased number of engineered shooting tracks;
- Moorland grips (ditches) which have been blocked in many places;
- Loss of use of local stone for building repairs and new buildings;
- Views of wind farms within the AONB from outside and vice versa;

- Pressure from planning applications for wind farms within and at the edges of the AONB;
- Amalgamation of farms and houses;
- Farmsteads being converted into residential homes (access/drives, new stonework, electric gates and lights, creeping suburbanisation, ancillary buildings, inappropriate planting)
- Poor quality architecture of conversions/loss of character
- Coloured bins
- Farmers diversifying
- Changing farming practices (difficult to avoid because of economic change) – loss of boundary features, introduction of horticulture, less dairying (loss of buildings), change in cattle
- Some farms have gone into retail units
- Loss of vernacular styles (e.g. use of Yorkshire stone rather than local stone)
- Need to protect the views in and out of Bowland/experience of Bowland from outside (e.g. from Lancaster and Blackpool)
- Increasing pressure from mountain bikes/motorbikes – particularly on Nicky Nook, Longridge Fell and Pendle Hill;
- Introduction of other native cattle breeds as part of HLS schemes;
- Drystone walls are deteriorating in some places;
- Introduction of leylandii into the landscape;
- Traditional signage being lost as a result of highway improvements;
- In some places, wooden railings have been put on top of old metal railings;
- Gaps in stone walls in places;
- Unnecessary (sometimes hazardous) signs/clutter
- The quality of road maintenance and wall maintenance on main access is not very good
- Loss of traditional skills
- Keeping up with gaps in walls/general wall maintenance
- Shortage of local stones
- Climate change (biodiversity, increase in fires, erosion, impact on grouse, species which may disappear);
- Clear felling on Beatrix Fell;
- The maintenance of dark skies throughout the landscape;
- Fencing in the Langden Valley;
- Hydro power (mill sites)

Workshop Summary

Cathy Hopley thanked everyone for attending the informative workshop and for providing their views, which will provide a key source of information to feed into the characterisation and evaluation process.

Emma Clarke explained that the consultant team were currently preparing a Draft Report for completion during March 2009 that will set out the draft findings of the Character Assessment work.

In the interim, Cathy encouraged all stakeholders to provide any further views by contacting the AONB Unit or the Consultant team by e-mail.

FOREST OF BOWLAND AREA OF OUTSTANDING NATURAL BEAUTY LANDSCAPE CHARACTER ASSESSMENT

Notes of Workshop for Statutory Stakeholders

Location: **Slaidburn Village Hall**

Date: **Tuesday 3rd February 2008**

Attendees	Organisation
Rosemary Elms	Ribble Valley Borough Council
Fred Nicholls	Calder Vale Village Hall
Rob Ashton	Calder Vale Village Hall
Tracey Pinder	Slaidburn Parish Council
Jean Lawson	Slaidburn Parish Council
David Kelly	Ramblers Association
Graham Cooper	Lancashire Countryside Service Volunteer ranger
Ken Winstanley	Dunsop Bridge Parish Council
Duncan Armstrong	Resident
Geoff Whitley	Resident
Rod Everett	Middlewood Trust
Frank Mason	Slaidburn Parish Council
Brian Jones	Ramblers Association
Daniel Bond	Environment Agency
Alison Ashworth	Craven Heifer
Mary Wilson	Lancashire County Council
Richard Atton	Natural England
Susannah England	Natural England
Dave Oyston	Lancashire Countryside Service

Purpose of the Workshop

- To brief stakeholders on the Study and the emerging findings;
- To review and discuss the draft Landscape Character Mapping; and
- To identify forces for change and sensitivities as input to the development of landscape guidelines.

Format of the Workshop

Cathy Hopley (Forest of Bowland AONB Unit) welcomed everyone to the workshop and gave a short introduction to the project, explaining the need for commissioning the Landscape Character Assessment.

Emma Clarke (Chris Blandford Associates) provided an outline of the study's objectives, process and outputs. Emma then presented the draft map of Landscape Character Types and Areas for the Forest of Bowland (which represented the product of desk study and observations in the field), explaining how this fitted with the existing classification hierarchy provided by the national level Character of England Map and the county level Lancashire Landscape Classification.

Attendees then split into four smaller groups (Teams A-D) for discussions. A record of the key issues recorded from each discussion session is set out below:

Breakout Session 1 – Landscape Characterisation Mapping

Objective

To review the draft Landscape Typology Map, discuss names and identity aspects of 'local distinctiveness'.

Tasks

- Review the boundaries/location and names of the draft Landscape Character Types and Areas;
- Identify aspects of 'local distinctiveness'.

Feedback Recorded from Discussion Groups (Teams A-D)

Each Discussion Group annotated an AO map of the Draft Landscape Character Types and Areas with suggested name and boundary changes, to reflect local distinctiveness.

Identified aspects of 'local distinctiveness' included:

Group A

Landscape Character Area (LCA) A1 - Tarnbrook Fell:

- Heather
- Eroding peat
- Sense of space
- Wilderness (although managed)
- Grouse shooting

LCA A2 – Brown Berry Plain and Holdron Moss:

- Height
- Panoramic, open views
- Similarities with A1
- Mosaic of grassland and heather

LCA B1 – Baxton Fell (now A3):

- Patches of SSSI habitats
- Wet landcover in places

LCA B2 – Brown Syke Hill (now A4):

- SCAMP (Sustainable Catchment Management Programme) – United Utilities.

LCA C1 – Mallowdale Fell:

- Heather is predominant landcover
- Sound of gulls is a distinctive feature.

LCA C2 – Abbeystead to Oakenclough Fell:

- Heather is predominant land cover

LCA C3 – Burn Moor Fell:

- LCA follows estate boundary
- Open views

LCA C4 – Pendle Hill:

- Views across urban areas
- Very little heather coverage here;
- Pendle Hill is a key feature within views across the Forest of Bowland landscape.

LCA D1 – Caton Moor :

- Sandstone
- Coal mines
- Bell pits
- Some areas of heather
- Some moss
- Wind farming
- Sounds of Curlew and lapwing

LCA D2 – Central Bowland Fells:

- Centre of the kingdom
- Windswept
- Exposed
- Greatest potential for visual change as broadleaf trees have been planted

LCA D4 – Birkett and Harrop Fells:

- Quarry (sandstone)

LCA D5 – Beacon Fell:

- Wooded horizon
- Visitor centre
- Heavily managed
- Large number of visitors
- Solely a visitor attraction

LCA D6 – Longridge Fell:

- Wooded (conifers)
- Some heather interspersed with wooded areas

LCA K1 - Lune:

- Flat
- Fertile
- Scheduled Monuments
- Medieval bridges

LCA L1- Gressingham:

- Enclosed farmland
- Hedges and fences
- Postman pat country!

LCA's J2 – Roeburndale and J3 - Hindburndale:

- Ancient semi-natural woodland
- Steep sides
- Mosaic of grassland and hay meadows
- Fruit trees (apple varieties)
- Watercourses (cascading down from the fells)
- Mill rivers (wears)

LCA M1 – Harrop Fold:

- Common land

LCA N1 – Gisburn Forest:

- Recreational asset
- Church is a landscape feature.

Group B

Landscape Character Type A: Unenclosed Gritstone Moorland Plateaux

- Wire fencing
- Distinctive pattern of stone walls at Pendle
- Walls as parish boundaries

Pendle Hill:

- Clough – gouged/scar which is a distinctive feature on the side of the hill;
- Steep sided valleys
- Newton fells – clough valley – lead workings/clough (without trees)

- Ashendean clough/Pendle is another distinctive feature;
- Small scale Mearley clough

Easington:

- More undulating/more vegetated/more growth – different to Waddington, more rural/more cultivated

Longridge:

- Moorland hill with plantations

Downham Moor:

- Bench (steep side)

Sabden Fold:

- Enclosed
- Forest
- Evidence of landscape improvements
- Vaccary farm/old vaccary walls
- Cattle farms
- Clough/Sabden Fold wood
- Intimate, small scale
- Hedges and walls
- Pre-medieval landscape which has strong historic continuity.

Grindleton:

- Bluebells introduce strong colour when in season

Stonyhurst:

- Parkland landscape

Sabden:

- Victorian/industrial

Dunsop:

- Duchy – big overhanging eaves
- Trough of Bowland

Estate colours:

- Downham – green
- Abbeystead – grey
- Huntroyd – red
- Slaidburn - white

South of Pendle:

- Fast flowing streams

Group C

Landscape Character Type A: Unenclosed Gritstone Moorland Plateaux

- Very rare, special, precious
- Unspoilt area - Needs to be kept like this – people fundamental to the maintenance of the landscape
- Bleak
- Exposed
- Exhilarating
- Open views – distant
- Plants and wildlife – cotton grass, sphagnum moss, sundew, heather, grasses
- Grouse
- Improved air quality
- Away from society
- Featureless
- Boundary marker stone
- Visitor use is low

Type B: (agreement was reached to merge Landscape Character Type A with Type B)

Landscape Character Types Type C and D – Unenclosed and Enclosed Moorland Hills:

- Sometimes during the year there is little light in some areas and open light in others
- Uplifting (depending on weather and skyscape)
- Many landscape features
- Changing landscape as you move through it
- Boundary marker stones
- Bracken (lower moorland)
- Deep valleys – cloughs
- Changing light (less light pollution)
- Changing landscape kaleidoscope
- Lower upland slopes – plantations (inappropriate shapes and location?)

Landscape Character Type E – Moorland Fringe:

- Includes productive lowland through to sloping unimproved land
- More variety
- Some disused properties (derelict) – now becoming viable with alternative technologies
- Undulating – Bleasdale
- Evidence of higher impact from man
- Farm settlements (some in sue/some derelict) – often along spring line
- More streams
- Wooded cloughs
- Semi-improved pasture
- Gradual change between moorland hill and improved lower land
- Different light pattern
- Northern fringe areas – horizontal band
- Boundaries – walling patterns/ change to fencing and hedges

Landscape Character Type F – Undulating Lowland Farmland:

- Ridge and furrow
- Terracing for cultivation
- Drainage ridging

- More houses and buildings
- Introduction of cultivated land
- Milk stand at Farmgate (fast disappearing)

Landscape Character Type G – Undulating Lowland Farmland with Wooded Brooks:

- Smell – woodland/damp
- Springtime smell – garlic
- Water powered industry (remains of)
- Woodlands and wider landscape softened by trees within field boundaries
- Broader and slower streams
- Taller trees and more ivy
- A variety of species
- Ground flora in woodlands
- Rural lanes
- Prominent fields
- Coppicing – Brock Valley
- Bobbin mills set in valleys
- Alder trees

Landscape Character Type H – Undulating Lowland Farmland with Parkland :

- Beech in some areas
- Parkland features – ha ha, kitchen garden wall
- Woodland with ground flora
- Large rolling fields with individual trees
- Previous 'land owners' – deer and cattle
- Deciduous woodland copses
- Downham estate – well managed
- Knowlmere – flattish in bottom, circular ridge

Landscape Character Type I – Farmed Ridges:

- Narrow windy roads (with a lot of dead ends)
- Very quick changes in altitude

Landscape Character Type K – Valley Floodplain:

- Soils are different – nutrient rich and less mineral differences (copper deficient)
- Texture of ground – gravel
- Meandering river courses
- Disappearing footpath (eroded)
- Less evidence of walls - more hedges/fences or none
- River, woodland and trees are key features
- Large open fields – mainly meadows
- Flat valley bottom

Landscape Character Type L – Drumlin Field:

- Openness
- Inspiring
- Bowling green grassland
- Reflects light
- Good drainage
- Sometimes very wet patches in the bottom (flora growing on these patches)

- Limestone

Landscape Character Type M – Forestry and Reservoir:

- Good quality farming (but wet)

Group D

Landscape Character Types A/B Moorland Plateaux

- Gritstone- used for millstones
- Open uninterrupted fells, windswept, grouse moor, sound of grouse, lots of birds, ravens, gulls, tranquil, not many people.

Landscape Character Areas

- A1 Gullery very distinctive, very extensive views of lakes, Isle of Man, Wales, Lune valley, sense of wildness and isolation, tranquil, sculptures for the millennium.
- A2 Peaty, lots of deep peat hags, bare peat, erosion, open, bleak, not much greenery, extensive views to Pendle, Dales 3 peaks, lakes national park, Morecambe Bay,
- B1 Fabulous views towards Yorkshire Dales, exhilarating, strong sense of isolation, heather mixed with white fell.
- A1 some shooting tracks and lodges, grouse butts, feeding stations, lots of curlews,
- A2 eroded near trig point, peat disappearing, drying out then eroding and additional wear caused by people. Eroded feel over whole area. Plane wreckage.
- B2 Same as A1
- D2 Top of D2 is same as A1 with grouse shooting related features.

Names of Landscape Character Areas

- A1 suggest change name to Clougha
- A2 suggest change name to Bleasdale Fells
- B1 leave name as is
- B2 incorporate into Clougha
- D2/A3 New area to be called White Hill when drawn on map

Landscape Character Type H Undulating Farmland with parkland

- Estate architecture, hunt kennels, stone architecture, stone mullioned windows, lodge gatehouses, metal park railings;
- Copses, estate woodlands, sound of shooting, lots of pheasants;
- Villages stone with cobbled streets, very narrow winding streets. Never far from a river, roads running parallel to rivers, river views, back lanes with right angle bends, river crossings, various bridge styles, suspension, humpback, stone.
- H2/3 Limestone, gritstone, rubble construction, estate feel, Slaidburn very similar styles, still estate villages but not gentrified, 18th Century buildings. Chipping houses much older, has a clear centre cross, memorial, shops and PO etc, villages quite higgledy-piggledy, not an orderly designed layout.
- H1 No one in group knew this area well, associated with caravan sites, gravelpits, fisheries etc, strong human influence. Group felt consideration should be given to making this just a part of E as estate parkland is only a small part of the area defined as H1.
- H3 Valley of the River Hodder... change name to Hodder Valley, older settlements, single linear valley. Settlements on cross roads.
- H2 Network of lanes, more open, less structured, river less obvious than in H3.
- Whitewell Valley should be separated out. Wooded valley

- Add in H4 Stoneyhurst lots of trees, clumps, open grown specimen etc, strong parkland feel.

Landscape Character Type D Enclosed Moorland Hills

- D6 extend boundary to include Jeffrey Hill
- D1 Windfarm, quarries, grouse shooting, inaccessible and wild on top. Wind farm totally dominates the area though opinion split on whether this offended the eye or not.
- D2 feel very high up, super fells, moorland, unenclosed, very open, 'untouched and wild' feel, uninhabited, roman road, Salta Fell track, bridleway can still see roman road. Old crofts, cottages scattered belted Galloway cattle, Hen Harriers visible, lots of curlews and grouse.

Breakout Session 2 – Evaluation of Key Issues/Forces for Change in the Landscape

Objective

Based on the framework of Draft Landscape Character Types, identify landscape issues/sensitivities and forces for change.

Tasks

- Highlight key landscape and visual sensitivities;
- Highlight the main past and future forces for change.

Group A

- Climate change (acid rain[affecting fish and birds], carbon capture farming, possible move towards low impact communities, communities having to maybe be more self sufficient, energy crops on the fringes of the AONB, alien species [getting worse on the river valleys], water catchments and holding water in the landscape will be important in the future [putting ponds on fells/potential for fish farming], wind turbines [mixed feelings regarding this/could be a tourist attraction?], solar panels, impacts on biodiversity, peat erosion, potential increase in fires)
- Blocked drainage ditches/ eroded road verges
- Water quality – agricultural pollution (improving but still issues)
- Potential increase in visitor numbers e.g. at Gisburn Forest where new mountain biking tracks have been created. If more parking is required this could be an eyesore in the landscape
- Mountain biking/bridleway pressures?
- Some coniferous blocks being replaced with broadleaf
- Future of government subsidies/ this affects land management and farming activities
- Inappropriate barn and traditional buildings conversions
- Farms sold for residential use
- Farms being split up/loss of out buildings in some places
- Pressure on farmers to become a bigger or more specialised unit to succeed
- Farm diversification
- Loss of local vernacular
- Inappropriate low cost housing
- Locals unable to afford the cost of properties
- Light pollution
- Increase in cars (residents and visitors)/more traffic
- Increase in tourism? Impact on the landscape
- Wheelie bins
- Traditional methods being lost
- Mixed feeling regarding whether the signage should be traditional or new

- Some hazardous signage
- Lack of information provided related to providing an understanding of the historical aspect of the Forest of Bowland
- Future for quarries which are currently still in use? Will they go into disuse or expand? Re-open some to get local stone?

Group B

- Economic forces and policy changes - land management e.g. in Chipping there are initiatives for hedgerow management
- Hedgerow loss (lack of maintenance) and stone walls
- Some lowland farmland has been neglected since the last war
- Hillfarm allowance/subsidy has been replaced with higher level scheme (hedge and wall restoration payments, uplands entry level, decrease in cattle numbers [subtle change in vegetation, with more wildlife and biodiversity], sheep replacing cattle [shorter vegetation])
- Climate change: more arable in lower lands, more pasture, drying out of peat/erosion, prevention of peat erosion, peat bogs wont be in such good condition if summers get dryer, risk of fire on peat)
- Burning/management - to prevent wildfires, patchwork of burning
- Field barns: funding to save them/no longer of agricultural use
- Signage: Salter Fell, Waddington - too much clutter/unnecessary fell signage (written on the road); Downham – no white/yellow lines; corner of Dunsop Bridge – replacement with traditional signposts
- Urban signage
- Wind turbines – Caton Moor/scoping for 20 within the AONB)
- Water power? - European water directive – fish migration conflict
- Bashall town pollution, water extraction of Upper Hodder, not as many salmon within the Hodder (lower water levels)
- Fells: pheasant shooting (debris, fills but good for small woodlands [planted for shooting], increase in Roe Deer (threat to woodland development)
- Shooting deer (Gisburn Forest, Longbridge Fell, commercial forestry with ongoing deer management)
- Clearance of conifers and replacement with broadleaf (Beatrix/Grindleton - opportunity to diversify woodlands)
- Future of upland agriculture (ELS – maintenance of walls and hedges [secondary jobs]). Hill Farming?
- Tenant farming
- Inappropriate conversions (not done well enough, tiles too straight and tidy, brush pointing instead of strip pointing)
- Isolated farms – boosted/made into small hamlets (conversion into lots of houses/homes)
- Lack of design guide (influence local skills/builders)
- Open access land: people not really using it/ staying on tracks, smaller signboards needed, has been protected as hunting land
- Visual impact of car parks
- Deterioration of road verges due larger vehicles
- No capacity on the roads for large commercial vehicles
- More delivery wagons, increase in traffic
- Loss of parkland landscapes (boundary walls, grazing, no replacement trees)
- Woodlands: demand for firewood (should have a positive impact on woodland management); logs (Bowland biofuels)
- Sensitivities include open views, villages, hedges, drystone walls, vistas (Beacon fell/Jeffrey Hill) in and out, hedge laying contrasts, drystone walling, local skills
- Visitor management: encourage to a certain level, parking issues, large scale attractions
- Bridlepath linkage (North Pennine Bridleway)
- Potential for horsiculture
- Fells; no designated trail/bridleway
- Struggle to get local walling stone/roofing stone, potentially open up some local quarries?

Group C

- Urbanisation
- Lack of dyke maintenance
- Potentially greatest pressure on moorland fringe
- Pressure to produce more food and biofuel. Potential for increase in e.g. maize crops
- Sheep numbers dropping
- Suckler cows subject to change?
- Increased DEFRA regulations (e.g. ear tagging – cost and time makes this unworkable)
- Increased rainfall may cause riverbank erosion and structural erosion (e.g. bridges)
- Land getting wetter and thus harder to farm
- Changes in seasons will affect wildlife
- Signage to tourism destination – brown signs and informal home made signs
- Farmyard residential development complexes – affects existing PROW network
- Lack of guidance for new development in the AONB (e.g. colours to be used, appropriate screening, styles of buildings etc)
- Farms sold for residential use (what happens to the associated with it? Who manages it?)
- Increased amount of land being taken in for private gardens
- Inappropriate development: removal of trees etc linked to residential development, Inappropriate gateways, inappropriate lighting
- Inappropriate development i)sometimes retrospective planning, ii) pressure on local planning authority to meet time related targets, iii) currently lack of AONB guidance
- Derelict barns
- Demand for 'appropriately priced' affordable housing (rental and/or purchase) for local people
- Road signage, telegraph poles, telephone box
- Farms being amalgamated into larger farms
- Increased demand to reduce stocking on the fells. This is resulting in i) an increased need to house stock within new buildings and ii) a potential increase in pollution (concentrated)
- Lack of highway drainage
- Lack of clearance of overhanging branches/trees in some areas
- Growth of trees and shrubs in highway verges and within drystone walls
- Potential to make more of the traditional cultural events
- Health and safety e.g. Cattle grid signage (Waddington Fell and Trough road)
- Difficulties in liaising with Lancashire County Council
- Bridge development has the potential to impact on sea trout/salmon migration
- Increased hay/silage
- Loss of traditional skills (need for e.g. skilled drainage contractors)
- Increased number of rodents as seasons get damper
- Lack of mole catchers
- Fundamental to landscape management – agriculture, forestry, estate management and fishing
- Need for 'sustainable tourism'
- Encouragement of tourism - how will this impact on the landscape
- Increased tourism – potential impact on footpaths (erosion)
- Potential for increased caravan sites which would not necessarily be welcomed/ increase in cars
- Wheelie bins
- Need to look favourably on farm diversification
- Poor road network and other transport links to support rurally based businesses
- Need for more sustainable modes of transport/lack of public transport/impact on the environment and the landscape
- Gisburn Forest and Stocks reservoir: potential impact of tourism development/development of off road mountain biking networks
- New blue drainage pipes have been left exposed at stocks reservoir
- Loss of vernacular features (milk churn stand, dogs kennels, wells, stone trough, lime kiln, ancient road signs, cheese stones, gate post, parish boundary stones, Duchy gates, cross base stones, daterstones, etc)

Group D

- Huntley, Bashall and Backridge farm developments: Cafés, retail etc. Traffic and car parks impacts on the landscape. Large scale interior dairy farming - sheds
- Loss of community, skills, jobs (grazing on green etc)
- Lower density grazing on fells – including heather? Has this been noticed
- Tidy walls and rare breeds more noticeable –result of stewardship payments
- New fencing - straight lines on open fells and in valleys
- Amalgamation of tenancies into larger farms
- Climate change: rainfall and flash floods causing peat erosion/damage, fire risks, windfarms (direct impact), restoring the peat to 'lock up the carbon', tree planting (wood fuel) in cloughs and hills is ok
- Change of use of farm buildings and farms – changing style of gateways, lighted driveways, large parking areas, loss of buildings etc)
- Caravan parks – not too visible as long as small scale and screened
- Sustainable tourism with low level infrastructure
- Footpath erosion
- Lack of opportunity to provide signage for tourism destinations can affect business viability
- Appearance of kerb stones on lanes
- Cattle grid 'improvements' to single tack – new style is unsafe
- Inconsistent signage
- Changes in the views to and from Bowland (e.g. expansion of Lancaster University which is a large scale development and will be very obvious from key views in the AONB, wind farm at Caton)
- Farm diversification - loss of dairy (in types H, F and G), large cafés on farms, car parks
- Intensification – indoor stock, large farm sheds
- Loss of farming communities , loss of cows coming through villages
- Lack of snow in types A, B, C, D and E, potentially as a result of climate change.
- More flooding causing gully erosion
- Closing of fells because of fire risks
- A1/C2 – footpath erosion
- D1 – windfarms, kerb stones appearing on rural roads, modern road sign clutter (e.g. cattle grids)

Workshop Summary

Cathy Hopley thanked everyone for attending the informative workshop and for providing their views, which will provide a key source of information to feed into the characterisation and evaluation process.

Emma Clarke explained that the consultant team were currently preparing a Draft Report for completion during March 2009 that will set out the draft findings of the Character Assessment work.

In the interim, Cathy encouraged all stakeholders to provide any further views by contacting the AONB Unit or the Consultant team by e-mail.

APPENDIX G:
GLOSSARY

Agri-environmental Schemes

Agri-environmental Schemes encourage traditional farming practices to protect the environment by providing grants to land owners to manage their land in ways that conserve and enhance landscape features, wildlife and historic assets, and promote access.

Ancient woodland

Woodland area which has had a continuous woodland cover since at least 1600 AD and has only been cleared for underwood or timber production. It is an extremely valuable ecological resource, with an exceptionally high diversity of flora and fauna.

Brook

A natural freshwater stream.

Biodiversity

The number and variety of organisms found within a specified area – an important measure of the health and vitality of an area's ecology

Blanket Bog

Upland peat bog formed under conditions of high rainfall. It drapes over the Moorland Plateaux and obscures most topographic features. Depending on management the vegetation can vary from wet sphagnum dominated communities to moorland grasses and ericaceous shrub communities.

Cairn

A mound of rough stones built as a monument or landmark - the most common examples being clearance cairns , when stones were cleared from a field in preparation for cultivation, and funerary cairns covering graves or burial chambers.

Clough

A local north England term for a small, steep-sided valley.

Coppicing

The traditional method of woodland management in which trees are cut down to near the ground to encourage the production of long, straight shoots, which can subsequently be harvested.

Local Wildlife Site

Local Wildlife Sites are sites that have been identified for their local wildlife value and include Biological Heritage Sites within Lancashire County and County Wildlife Sites within Yorkshire.

Countryside Stewardship Scheme

The Countryside Stewardship Scheme was introduced as a pilot scheme in England in 1991 by the then Countryside Commission and operates outside the Environmentally Sensitive Areas. Farmers and land managers entered 10-year agreements to manage land in an environmentally beneficial way in return for annual payments. With the introduction of the new agri-environment scheme, Environmental Stewardship, the Countryside Stewardship Scheme is now closed to new applicants**.** However, existing agreements will continue until their expiry date.

Crag

A rough steep rock; origin unknown

Drumlin

A streamlined, elongated egg-shaped hillock of glacial drift formed under a moving glacier during the ice age. The long axis of the hillock is aligned parallel to the direction of the ice flow. Drumlins usually occur in swarms or 'fields'.

Ecosystem

A functional ecological unit in which biological, physical and chemical components of the environment interact.

Entry Level Stewardship (ELS)

Entry Level Stewardship, an element of Environmental Stewardship, is open to all farmers and landowners and provides a straightforward approach to supporting the good stewardship of the countryside.

Environmentally Sensitive Area

The Environmentally Sensitive Areas (ESA) scheme was introduced in 1987 to offer incentives to encourage farmers to adopt agricultural practices, which would safeguard and enhance parts of the country of particularly high landscape, wildlife or historic value.

Feature

A prominent, eye-catching element (e.g. wooded hilltop, church spire).

Fell

A mountain, or hill, or upland tract; from the Old Norse *fjall,* a rock

Habitat

The locality, site and particular type of environment inhabited by animals and plants.

Higher Level Stewardship (HLS)

Higher Level Stewardship, an element of Environmental Stewardship, provides for targeted environmental management and makes payments for capital work plans. HLS is designed to build on ELS and OELS to form a comprehensive agreement that achieves a wide-range of environmental benefits across the whole farm. HLS concentrates on the more complex types of management where land managers need advice and support and where agreements will be tailored to local circumstances.

Hydrology

The study of surface waters (rivers, lakes and streams).

Key Characteristic

An element that contributes to local distinctiveness (e.g narrow winding lanes, strong sense of openness).

Laithe house

A dwelling which incorporates a barn under the same roof.

Landcover

Combinations of land use and vegetation that cover the land surface.

Landform

Combinations of slope and elevation that produce the shape and form of the land.

Landscape Character

A distinct pattern or combination of elements that occurs consistently in a particular landscape.

Landscape Character Areas

A discrete geographical area with a distinct and recognisable pattern of elements

Landscape Character Assessment

Landscape Character Assessment (LCA) is a tool for identifying what makes a place unique.

Landscape Character Type

A generic unit of landscape with a distinct and recognisable pattern of elements that occur consistently throughout the type.

Mesolithic

(c. 8,000 - 4,000 BC) An archaeological term meaning 'middle stone' age and used to describe the culture achieved during the early Post Glacial period. It was a period of transition in the early Holocene when mankind moved from the hunter gathering practices of the Palaeolithic of the last glaciation but had not yet adopted the farming practices of the Neolithic.

Neolithic

(c. 4,000 - 2,500 BC) An archaeological term used to mean 'new stone' age which describes the period of antiquity in which people began to use ground stone tools, cultivate plants and keep domesticated livestock.

National Nature Reserve

National Nature Reserves (NNRs) are established to protect the most important areas of wildlife habitat and geological formations in Britain, and as places for scientific research.

Natural England

Natural England is a governmental agency that works for people, places and nature to conserve and enhance biodiversity, landscapes and wildlife in rural, urban, coastal and marine areas. The agency seeks to conserve and enhance the natural environment for its intrinsic value, the wellbeing and enjoyment of people, and the economic prosperity it brings.

Open-field system

An area of arable land with common rights after harvest or while fallow. The fields date from the medieval period and are usually without internal divisions (hedges, walls or fences). Outcrop -the area where a particular rock appears at the surface.

Outcrop

The emergence of a stratum, veinor rock at the surface.

Palaeolithic

(c. 500,000 - 8000 BC) An archaeological term meaning 'old stone' age covering the period from the first appearance of tool-using humans to the retreat of the glacial ice and emergence of the Mesolithic.

Pollarding

A traditional woodland management practice in which the branches of a tree are cut back every few years to encourage new long, straight shoots for harvesting. Differs from coppicing

because the cuts are made at sufficient distance from the ground to prevent them from being eaten by animals. Willow trees are often pollarded.

Registered Parks and Gardens

Registered Parks and Gardens are sites placed on the national 'Register of Parks and Gardens of Special Historic Interest' compiled and maintained by English Heritage, to identify and increase awareness of the existence of such sites, and to help ensure that the features and qualities that make these parks and landscapes of national importance are protected and conserved.

RIGS

Regionally Important geological and geomorphological sites.

Scheduled Ancient Monument

A Scheduled Ancient Monument is an archaeological site or historic building of national importance protected under the Ancient Monuments and Archaeological Areas Act 1979 and the National Heritage Act 1983.

Site of Special Scientific Interest

Sites of Special Scientific Interest (SSSIs) are designated under the Wildlife & Countryside Act (1981 and as amended) to protect sites that are of national nature conservation importance because of the wildlife they support, or because of the geological features that are found there.

Special Area of Conservation

Special Areas of Conservation (SAC) are protected sites designated under the EC Habitats Directive.

Special Protection Area

Special Protection Areas (SPAs) are protected sites designated under the EC Habitats Directive on the conservation of wild birds.

Transhumance

The vertical seasonal movement of livestock to higher pastures in summer and to lower valleys in winter.

APPENDIX H:
DEER PARKS, PARKS AND VACCARIES WITHIN THE STUDY AREA

Deer Parks and Parks

The approximate location of Deer Parks within then Study Area is shown on **Figure H1**.

Radholme and Leagram Parks

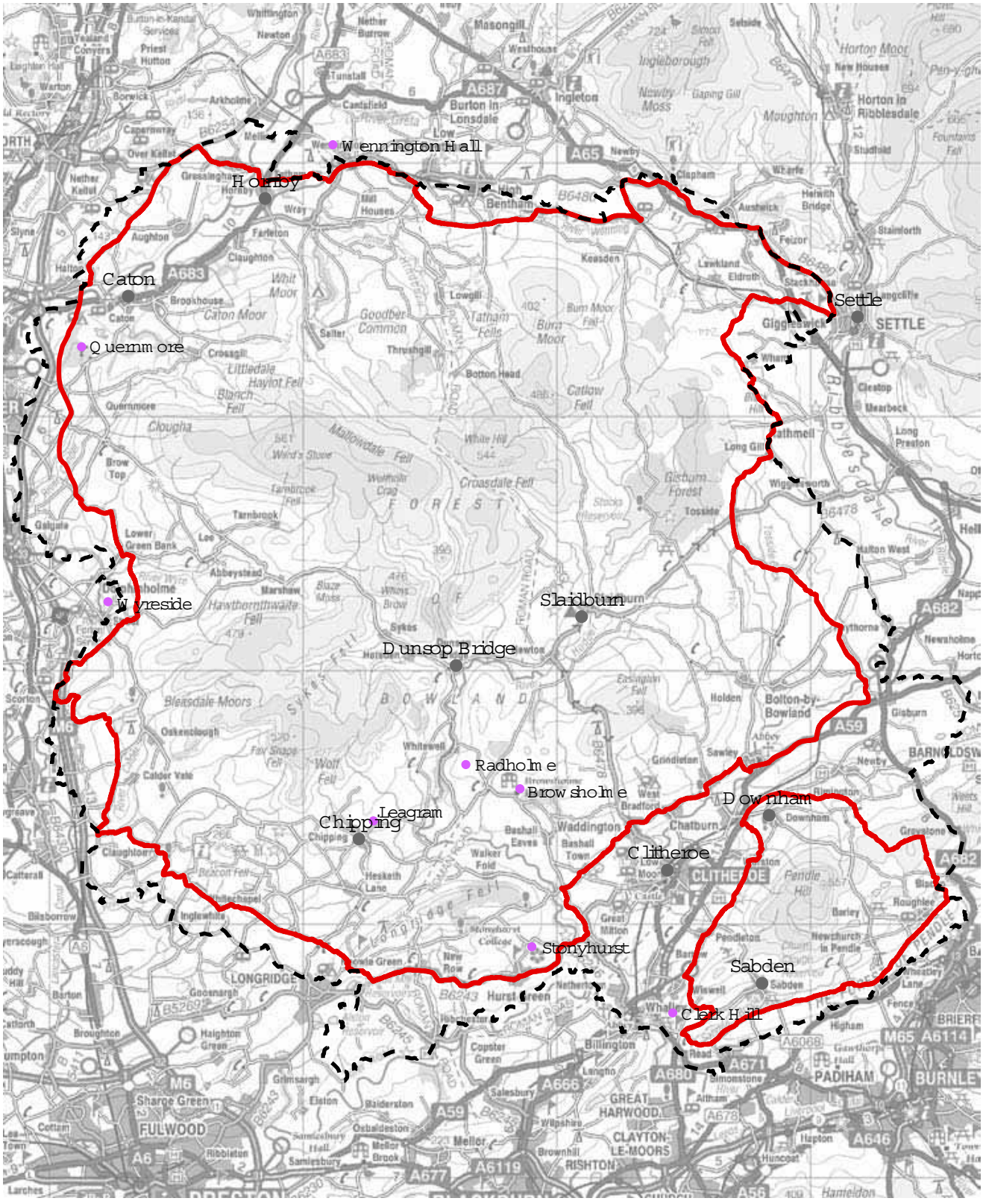
These two parks, within the forest of Bowland, were conscious attempts to create breeding grounds for deer while the vaccary system was at its height. Radholme Park, situated on a hill to the east of Whitewell, is probably the unnamed park referred to in 1259. Its boundary ran east from the outlet of Withens Brook, into the Hodder as far as Park Gate Farm, northwards past Higher Park Gate Farm, and over Burholme Moor to rejoin the Hodder below Burholme, with the Hodder as its western boundary[104].

Leagram Park (*Laithgryne, Lagram*, and *Leagrim* in the earlier documents) appears not to have been created until around 1349, when a keeper is first recorded. Acornhurst pale was one of the last recorded areas to be included in the park c1420. The western side of the park was formed by the limit of Chipping village. From Pale Farm in the south-west, the boundary (described anticlockwise) ran past Gibbon Bridge and Green Lands, past Leagram Mill to Park Gate at the northern end, then towards Windy Hills, and followed Dobson's Brook and Chipping Brook. The history of the park is set out by Weld[105].

The ditches, eight feet wide and four feet deep, with an embankment to the outside with a fence (pale) on top, enclosed with a thorn hedge. The keeper's lodge for Leagram stood near the site of the present Leagram Hall. Robert Radcliffe in 1466 was park keeper at Leagrim and paid 6s 8d for cutting boughs in the park and feeding them to the King's beasts in winter.

By the first quarter of the fifteenth century, these parks had outlived their usefulness, and had become too expensive to maintain. Several pastures within Leagram had been enclosed by 1422 for livestock. The banks surrounding these enclosures were high enough to contain the cattle, but low enough to permit deer to pass through. At Leagram Park, a royal commission in 1556 reported that it was disused, and too decayed to contain deer. It was sold the following year to its lessee, Sir Richard Shireburn of Stonyhurst, Master Forester to the Duchy. At the time of its disparkation, there were arable fields called Over Laund, Acornehurst, and Newfall to the north and east, Lower Laund pasture to the south, and a meadow called Park Green to the south. The only buildings were the lodge and a handful of cottages on the Chipping side; much of the park was waste, and unenclosed heath and mossland. As owner, Shireburn repaired

[104] Porter 1994, 53
[105] Weld, J, 1913 A history of Leagram: the park and the manor, *Chetham Soc*, **New Ser 72**, especially pp.1-25; Mrs Tarja Wilson, Lancashire County Council countryside warden, per comm



KEY

Study Area

Forest of Bowland Area of Outstanding Natural Beauty (See section 1.3.4)

Deer Parks and Parks

Based on information provided by Neil Archeological Services, March 2009

0 2 4 km

S:\projects\11109301 Forest of Bowland\GIS\Projects\Figures\11109301-FoB_H1_DeerParks.mxd

CHRIS BLAND FORD ASSOCIATES
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SEPTEMBER 2009

FOREST OF BOWLAND AONB
LANDSCAPE CHARACTER ASSESSMENT

Figure H1
Location of Parks and Deer Parks

the fences to keep deer out rather than in, and felled trees. His successor as Steward of Bowland, Sir Henry Hoghton, began a suit in the Duchy court to try to affirm his right to enter the park to kill deer, but Shireburn won the case.

The disparkation of Radholme is less well documented, but in 1615 James I leased it. In 1651, 338 acres were enclosed, though the enclosures were in poor condition. The unenclosed Inner and Outer Parks of 1651 were subsequently enclosed and were in a number of parcels by 1835[106].

Stonyhurst[107]

The estate passed to the Shireburne family in 1377 and remained in the family until 1754 when it passed, through marriage, to the Weld family. After this it was abandoned until Thomas Weld handed it to Jesuit refugees from Liege in 1794, who established the college of St Omers there. This school had been set up originally in the Spanish Netherlands in 1593 for the education of the sons of the English Catholic nobility, and members of the Shireburn and Weld families had been educated there. Stonyhurst was initially seen as a place of temporary asylum, but new stability followed the passing of the Roman Catholic Emancipation Act in 1829, and the establishment, which still occupies the building today, had the dual function of being both a school and the headquarters of the English Province of the Society of Jesus.

The principal entrance to the site is from Hurst Green. At the northern end of the village a drive, which is a public road, leads north through a pair of low stone piers and continues through woodland for *c* 200 m. At this point it turns through almost 90 degrees and leads eastwards down The Avenue, to a forecourt on the west front of the house.

Stonyhurst College (Listed grade I) is on the site of a building of late fourteenth or fifteenth-century date. A gatehouse on the west front of the house leads to a courtyard with buildings on each side. This phase of building was started by Sir Richard Shireburn in 1592 and was continued by his grandson, Nicholas Shireburn, in the late seventeenth and early eighteenth century. Additions were made in 1799 when the Society of Jesus took over the house, and three campaigns of building during the nineteenth century greatly enlarged the house on the north and east sides.

A substantial part of Sir Nicholas' garden, laid out by Henry Wise (who was also working at Blenheim at the time) in 1696-1717. It is one of the most important gardens of its date in the whole county, only Houghton Tower being on a par with it.

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[106] Porter 1994, 59-61
[107] The following is abstracted from English Heritage's *Register of parks and gardens of special historic interest*

Before the west front of the College, at the end of The Avenue, there is a walled forecourt, entered through stone gate piers with broken pediments and urns (c 1700, listed grade II). The forecourt overlooks the main drive which is aligned with the front of the house and flanked by stone-lined canals. Sir Nicholas Shireburn laid out The Avenue and canals in 1696 and the latter were enlarged to their present length, of c 200m, in 1710. The gardens of the south front consist of a large rectangular area of lawns and playing fields bordered by a low stone wall punctuated by low piers (C19, listed grade II). Both the east wall and part of the south wall retain a range of evenly spaced cast-iron baluster-like piers with railings between. The piers are copied from C17 originals in the formal garden. This area is used for sports activities and was levelled in the early C19, removing terraces, water features and a maze.

In the centre of the raised platform is a circular lily pond (c 1700, retaining wall listed grade II), with a stone basin and central plinth. Around the pond are a number of plinths which formerly supported statuary. Between the pond and the clairvoie is an octagonal stone observatory (1838, listed grade II), called the Old Weather Station and used as a cafe.

The pond has quartering paths leading from it, those to the east and west with flights of stone steps (both listed grade II, repositioned mid C19) leading down to the allées. That on the east side links with a path leading through to the neighbouring garden. On the south side there is a large sunken circular lawn, called the Bowling Green. This is surrounded by clipped hedges of yew on all but the east side, where the circle is completed by a number of yew trees, thought by Hartwell to be part of the original Wise scheme of *c.* 1700. Immediately to the south of the Bowling Green, south of the yew hedge, a path leads eastwards through the garden from the clairvoie.

To the east of this garden there is a terrace with three sets of stone steps leading down from the three axial paths of the formal garden; these lead to an area of irregular rhombic shape with walls on the east and south sides splaying at an angle to the axis of the gardens. On the west side there is a yew walk, called the Dark Walk, which runs north/south along the edge of the terrace.

Elements of these gardens were described by the poet Gerard Manley Hopkins, who taught at Stonyhurst during the 1870s, in a letter to Robert Bridges of c 1873: 'There is a garden with a bowling green, walled in by massive yew hedges, a bowered yew walk with two real Queen Anne summerhouses, observatories...' (Martin 1991)[108].

[108] *VCH* 7, 7-14; Hartwell and Pevsner 2009, 649-59; Martin, R B, 1991 *Gerard Manley Hopkins*, pp. 199-223

Quernmore Park

A park, 'five leagues in circumference' seems first to have been established in 1287, when Edmund, earl of Lancaster (d. 1296) was licences to enclose one[109]. This seems to have been used as a horse stud farm – as was Ightenhill Park –in addition to being a deer park. Edmund is thought to have profited greatly from the need for horses in Edward I's Welsh Wars. Shaw[110] says that horse breeding established in the time of the magnate Theobald Walter (d. 1205) may also have been in the Quernmore area, and a pre-Conquest horse farm is suggested by the nearby place-name Stodday (OE *stodhaiya* – horse farm). The earliest reference to a parker at Quernmore is to Henry 'le Parker' in 1286-90 in the plea roll of the justices in eyre[111].

As part of the Duchy of Lancaster, the whole forest, including the park, came under the direct control of the Crown at the turn of the fifteenth century. By the middle of the sixteenth century, responsibility for maintaining the park wall, paling, and lodge had been transferred to the tenants. From an early date the grazing of the park, and for a time the adjacent strip between the park and River Lune at Scarthwaite, had been let out. Initially this was for a term of fourteen years, for £7 6s 8d *per annum*, with sufficient space retained for the lord's deer. The keeper claimed expenses of around £3 for maintenance of the paling and stone wall. From about 1450 only income is recorded, which Derbyshire thinks could possibly be a reflection of national economic priorities at a time of war. By the 1550s the grazing rent had increased to £10 1s 8d, with Scarthwaite no longer included, but for a term of 31 years. The increased rent may have resulted either from an increase in the size of the park, or from relaxation of the terms of rental. In 1576, Wiliam Stanley, Lord Mounteagle, the keeper, brought an action in the Duchy Court against one of the tenants, Christopher Carus, for various matters including 'overgrazing with sheep and cattle so that there as no grazing to the Queen's deer' and for failing to repair the park wall. A survey of the woods in 1587 indicates that William Bank, Hagg, and Lithe Brow were not yet part of the park.

In 1591, Thomas Preston of the manor and Abbey of Furness was granted the grazing, and the office of keeper of the park, for a term of 50 years. In 1630 Charles I sold Quernmore Park to Preston's son John – an absentee landlord. Whilst a deer park in name, other documents indicate that there were no deer at that time. In 1685 the estate passed, through the marriage of Ann Preston, to Hugh Clifford of Chudleigh in Devon, 2nd Baron. In 1702 the Cliffords rebuilt Park Hall, and bought in some additional land for the park. Around this time, several parts of the park were leased, including West Park and Park Hall, to the Catholic Taylor / Walmesley family. In 1765, after a family legal dispute, the park was granted to the Hon. Edward Clifford, who greatly improved the management of the park, rebuilt the hall, and opened collieries. After his death in 1781, and a further family inheritance dispute, the estate was sold in 1793 to Charles Gibson of Preston.

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[109] Pape, T, 1952 *The charters of the city of Lancaster,* Lancaster: City Council, p.19
[110] Shaw 1956, p.354
[111] TNA DL39/1/17, reproduced by Shaw 1956

Textile magnate Gibson contracted Thomas Harrison of Chester to rebuild the Hall, at a site in Postern Park, well to the south of the old hall, and the result is arguably the finest classical house in the Lune Valley, and the park was landscaped by John Webb of Staffordshire[112]. Committed to agricultural improvement, for which he was greatly respected regionally, Gibson added innovations such as a water powered threshing machine at the model Home Farm[113].

In 1842 the estate was sold to William Garnett of Manchester, a successful merchant, another agricultural improver, but by the mid twentieth century much of the land had been sold to tenants, and the park allowed to fall into disrepair.

The park is quite well served by cartographic resources. There are surveys of the park from 1651, 1669, and 1786. There is a plan from about 1750, and the Corn Rent Plan of 1824[114] The boundaries of the park are clear from the plan of 1750. The land gained at the parliamentary enclosure of Quernmore common in 1817 was never physically integrated into the parkland and provides an interesting contrast in its field shapes.

Wyreside Hall[115]

The manor of Ellel, within Cockerham parish, had been part of the fee or honour of William de Lancaster I (d. *c* 1170). The immediate lordships granted by de Lancaster and his successors descended through the Thweng and Rigmaiden families. In 1548, Sir William Molyneux (the family were later Earls of Sefton), held two parts of the manor of Ellel by knight's service. The manor descended with the Molyneux family until between 1770 and 1773, when it was sold to James Longworth. In 1799-1800 the manor was purchased from Longworth by James Fenton Cawthorne (d. 1791), whose family had held land there for 'six or seven hundred years'. James' son John Fenton Cawthorne (1753-1831) was Member of Parliament for Lincoln in 1783-96, being expelled from the House after being found guilty (possibly falsely) of embezzlement from his regiment, the Middlesex Westminster Militia. He was regarded as lord of the manor of Ellel and earned respect for undertaking much of the field enclosure, land improvement, and tree planting of the area, from 1798 onwards. He was MP for Lancaster in 1806-07, 1812-18, and from 1820 until his death. George III is said to have contemplated reviving the Barony of Wyresdale for him[116].

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[112] Robinson, J M, 1991 *A guide to the country houses of the North West*, London: Constable, p.227-8

[113] Dickson, R W, 1815 *General view of the agriculture of Lancashire, with observations on the means for its improvement*, London: Board of Agriculture, p.98 and 277

[114] Derbyshire, M, 2002 *The development of Quernmore Park 1550-1800: from royal deer park to model estate*, unpubl. Dissertation for Dip. Local and Regional Hist., Univ of Lancaster, Sept 2002; TNA LR2/283, ff 97-99; Uncatalogued Clifford Archive at Chudleigh, Devon; Lancaster Central Library PL34/6 (about to be removed to LRO); LRO AT2 Corn Rents map 1824

[115] The following is abstracted from a report by Neil Archaeological Service, 1999 *Gamekeeper's Cottage, near Corless Farm, Dolphinholme: report on archaeological building survey*, unpubl report for Duchy of Lancaster Estate Office (copy with Lancashire Sites and Monuments Record); *Post-Medieval Archaeol*, **34**, p.287, no. 398

[116] *VCH* 8, 99; Hewitson, A, 1900 *Northward: historic, topographic, residential, and scenic gleanings, etc., between Preston and Lancaster*, Preston, p.102; Thorne, R G (ed), 1986 *The History of Parliament: The House of Commons 1790-1820*, 5 vols, London: History of Parliament Trust, v3, 737-9; Bean, W W, 1890 *The parliamentary representation of the six northern counties of England*

As a result of the 1796 court martial, John Fenton Cawthorne, an entrepreneur who may have had slave trade financial interests, and was known for his harsh treatment of tenants and his opposition to labour reform, was in debt to the tune of around £50,000. He seems always to have been in financial difficulties thereafter. The debt may have been due in part to extensive remodelling in 1790 of his country house, Wyreside, to the designs of Robert Adam, though not all of Adam's ambitious scheme was implemented. He sold his town-house in Lancaster in 1824, but few of the twenty adjacent building plots were sold until a further auction in 1827. He also attempted to sell his Ellel and Wyresdale interests, including Wyreside (Hall) and Corless Mill, at auction in October 1826, but the sale again seems to have been wholly or largely unsuccessful.

Fenton Cawthorne having died childless, and Wyreside Hall was bought from his Trustees in 1836 by Robert Garnett (1780-1852). Emmeline Garnett (1994, 136) states that Robert Garnett, who had made fortunes in cotton and the railways, purchased the Wyresdale estate in 1826, which implies that he was successful with some of his bids during Fenton Cawthorne's lifetime, though not evidently for Wyreside Hall itself. He was elder brother of William Garnett (1782-1863), who had leased Bleasdale Tower from the Duchy of Lancaster in 1826 and bought Quernmore Park in 1842. Wyreside remained with the Garnett family until 1936. Mention should be made of Wyres*dale* Tower, Nether Wyresdale, also built by John Fenton Cawthorne in 1802, and demolished in 1868 by Robert Garnett's third son Henry (1814-97).

Corless Corn Mill and the Gamekeeper's Cottage

Whilst Wyreside Hall is in Nether Wyresdale, Corless Mill and the gamekeeper's cottage ornée which formerly acted as a gate-lodge, are situated in Ellel township. Corless Corn Mill dates from before 1588, at which date it is mentioned by name in a Duchy of Lancaster Special Commission into mills on the River Wyre.

The 'lodge', as the Gamekeeper's Cottage is described on the OS 1846 map. One of several access roads to Wyreside Hall was along the Corless Mill track from Bantons. A track led to a bridge across the River Wyre, almost due south of the cottage, at the narrowest point of the river. The track then crosses parkland to Finchcroft Wood, where there was an ice house, and on for a further *c.* 300m to the Hall. Neither the bridge nor the track are shown on Lawson's plan of 1852, nor on the 1892 OS 1:2500 map. By 1861, Wyreside Lodge had been built south-east of Bantons, with a new track and bridge, downstream of its predecessor[117].

... from 1603 to ... 1886 ..., Hull p.289; Robinson 1991, 256; Garnett, E, 1994 *The dated buildings of South Lonsdale*, Lancaster: Centre for North-West Regional Studies, Univ of Lancaster, p.203; plans *not seen* in Sir John Soane's Museum, London

[117] Ashmore, O, 1969 *The industrial archaeology of Lancashire*, Newton Abbot, p.267; Lancaster Library PL 12/1

Vaccaries

One of the most interesting aspects of the northern forests (including but not only Bowland) in medieval times was the leasing out of an increasingly high percentage of the land for stock-rearing. The word vaccaria (from the Latin vacca, 'cow') had several meanings, being used both for a building to house cattle also and more commonly to indicate a whole cattle-rearing establishment, a dichotomy which continued into the printed legal texts of the seventeenth century. The approximate location of vaccaries within the Study Area is shown on **Figure H2**.

Approximately fifteen vaccaries have been recorded in Bowland, in addition to ten in Pendle, eleven in Rossendale and twenty one in Wyresdale)[118]. There is little or no evidence of the forest of Bowland vaccaries having physical boundaries until a very late period, by which time they were vaccaries in name only. An exception to the no-boundary rule may be the 3 km long earthwork known as Calder Dyke, or in earlier times 'The Fence', delineating the vaccaries from the agistment of Bleasdale[119]. The notional boundaries nevertheless remained remarkably constant over time. Legal disputes resulted in Abbeystead and some other vaccaries being mapped in the sixteenth and seventeenth centuries, while those in Wyresdale were still available to be mapped for the Corn Rents in the 1830s and the first edition of the Ordnance Survey 6 inch: 1 mile maps in the 1840s[120].

An instance where the winter and summer grazing may not have both been within the bounds of the vaccary is Ortner, in Wyresdale. Winchester[121] suggests that the name – derived from 'Overton's erg' - may have been the summer pasture for the coastal settlement of that name, several miles away. In other forests, Winchester cites examples of 'pig' names, implying that vaccaries may have superseded the earlier right of pannage in the forest – the fee-paid right of tenants to allow their pigs to forage for acorns, usually between October and November[122]. Some place-names suggest that horse studs may also have been an element of the work of vaccaries, as at Stod Hey in Fair Oak vaccary[123]. This point will arise again under deer parks, in the case of Quernmore Park.

Monastic houses such as Fountains and Furness - but probably also Sawley and Whalley Abbeys in and adjacent to the AONB - were also famous for their stock-farms. Grange Hall, at one time called Gradalehals and now under Stocks Reservoir, is thought to have been the site of a vaccary belonging to Kirkstall Abbey.

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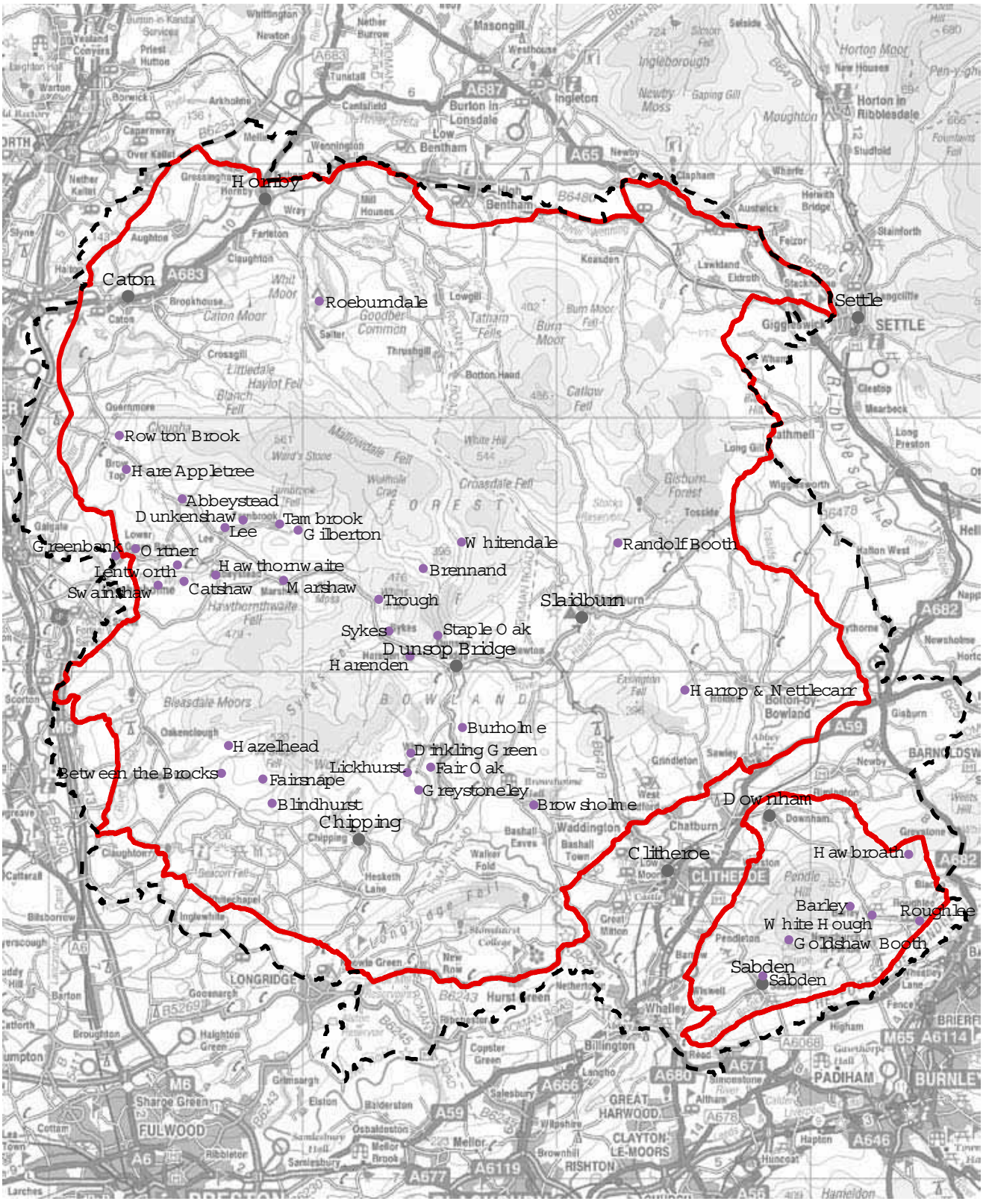
[118] Porter 1994, 49; Winchester 2000, 77; Winchester forthcoming
[119] Higham, N J, 2004, 116 and 119; Winchester 1993, 24; TNA MPC 77 f10d, sixteenth- century map
[120] Lancashire Record Office AT/2 Over Wyresdale corn rent map, 1833; LRO DDX 1935/1, plan of Abbeystead vaccary 1653 [copy 1670]
[121] Forthcoming
[122] Muir 2004, 179
[123] Porter 1994, 50



KEY

Study Area

Forest of Bowland Area of Outstanding Natural Beauty (See section 1.3.4)

Vaccaries

Based on information provided by Neil Archeological Services, March 2009

0 2 4 km

S:\projects\11109301 Forest of Bowland\GIS\Projects\Figures\11109301-FoB_H2_Vaccaries.mxd

CHRIS BLAND FORD ASSOCIATES
www.cba.uk.net

SEPTEMBER 2009

FOREST OF BOWLAND AONB
LANDSCAPE CHARACTER ASSESSMENT

Figure H1
Location of Vaccaries

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Part II: Forest of Bowland AONB Management Plan 2014-2019

February 2014

Forest of Bowland Area of Outstanding Natural Beauty Management Plan 2014 – 2019 (Final Draft)

Prepared by the Forest of Bowland AONB Partnership, February 2014

MINISTERIAL FOREWORD

Areas of Outstanding Natural Beauty (AONBs) are some of our finest landscapes. They are cherished by residents and visitors alike and allow millions of people from all walks of life to understand and connect with nature.

I am pleased to see that this management plan demonstrates how AONB Partnerships can continue to protect these precious environments despite the significant challenges they face. With a changing climate, the increasing demands of a growing population and in difficult economic times, I believe AONBs represent just the sort of community-driven, collaborative approach needed to ensure our natural environment is maintained for generations to come.

AONB Partnerships have been the architects of a landscape-scale approach to land management. This approach is a key feature of the Government"s Natural Environment White Paper and emphasises the need to manage ecosystems in an integrated fashion, linking goals on wildlife, water, soil and landscape, and working at a scale that respects natural systems.

This management plan also makes the important connection between people and nature. I am pleased to hear that local communities have been central to the development of the plan, and will be at the heart of its delivery. From volunteers on nature conservation projects, to businesses working to promote sustainable tourism, it"s great to hear of the enthusiasm and commitment of the local people who hold their AONBs so dear.

AONBs are, and will continue to be, landscapes of change. Management plans such as this are vital in ensuring these changes are for the better. I would like to thank all those who were involved in bringing this plan together and I wish you every success in bringing it to fruition.

Lord de Mauley
Parliamentary Under-Secretary of State at the Department for the Environment, Food and Rural Affairs

CONTENTS

INTRODUCTION

The Forest of Bowland Area of Outstanding Natural Beauty (AONB) is one of England's finest landscapes and is internationally important area for its heather moorland, blanket bog and rare birds. The area was designated as an AONB in February 1964. Since 1986 it has been managed by a partnership of landowners, farmers, tourism businesses, wildlife groups, recreation groups, local councils and government agencies, who work to protect, conserve and enhance the natural beauty of this special landscape.

The Forest of Bowland AONB is situated in North West England, covering 803 square kilometres of rural land in the counties of Lancashire (730 sq.km) and North Yorkshire (73 sq.km). The area is bounded to the north and south by the Rivers Lune and Ribble respectively. To the west is the Fylde plain, while the eastern side of the AONB boundary matches the Yorkshire Dales National Park for a short distance, with Ribblesdale bordering the rest. On its south-eastern edge, Pendle Hill forms a discrete landscape feature, which is geologically linked to the rest of the AONB but separated from the main area by the valley of the River Ribble. The Rivers Brock, Calder, Conder, Hindburn, Hodder, Loud, Roeburn, Wenning and Wyre all originate in the upland core of the Bowland Fells. The highest point of this upland core being Ward's Stone at 561m (or 1,841ft.), alongside other notable landmarks such as Fairsnape Fell at 510m and Hawthornthwaite Fell at 479m.

The AONB lacks large settlements and has an estimated total population of approximately 16,000 people. Its boundaries include parts of six district and city council areas, namely: Craven, Lancaster, Pendle, Preston, Ribble Valley and Wyre. The urban centres of Preston, Lancaster, Blackburn, Blackpool and Burnley are in close proximity to the AONB, with over one million people living within a 30-minute journey of the area. Furthermore, the AONB is within a 90-minute journey of the major conurbations of Liverpool, Manchester and Leeds.

For further background information on the AONB landscape visit: http://www.forestofbowland.com/understanding.

What is an AONB?

An Area of Outstanding Natural Beauty (AONB) is a special landscape whose distinctive character and natural beauty are so outstanding that it is in the nation"s interest to safeguard them. There are currently 38 AONBs in England and Wales and a further 8 AONBs in Northern Ireland. AONBs were originally designated using the same Act of Parliament as National Parks, namely the National Parks and Access to the Countryside (1949) Act.

AONBs are designated by the Government and Natural England is the responsible government agency. Natural England identifies the following objectives for AONBs:

- The purpose of AONB designation is to conserve and enhance natural beauty, as confirmed by Section 82 of the *Countryside and Rights of Way Act 2000* (CRoW Act).
- However, in pursuing the primary objective, account should be taken of the needs of agriculture, forestry, and other rural industries and of the economic and social needs of local communities. Particular regard should be paid to promoting sustainable forms of social and economic development that in themselves conserve and enhance the environment
- Recreation is not a purpose of designation, but the demand for recreation should be met so far as this is consistent with the conservation of natural beauty and the needs of agriculture, forestry and other uses

What is 'natural beauty'?

The „natural beauty" that is protected by AONB designation is more than the „look" of the landscape. The Countryside Agency guidance CA23 "Areas of Outstanding Natural Beauty Management Plans – A Guide" (2001) offers the following definition of natural beauty:

""Natural Beauty" is not just an aesthetic concept, and „Landscape" means more than just „scenery". It can include flora, fauna and geological and physiographic features. The natural beauty of AONBs is partly due to nature, and is partly the product of many centuries of human modification of „natural" features. Landscape encompasses everything – „natural" and human – that makes an area distinctive: geology, climate, soil, plants, animals, communities, archaeology, buildings, the people who live in it, past and present, and perceptions of those who visit it".

The influence we humans have on the landscapes we value has been clarified in more recent legislation. Section 99 of the NERC Act 2006 addresses the „naturalness" element of natural beauty and states that areas can have natural beauty, even though they may be used for agriculture, woodlands or parks, or have resulted from some other human intervention in the landscape. The Minister Lord Bach explained that this "takes into account the fact that no landscape in the United Kingdom has escaped human influence" (Lords" Hansard, 20 March 2006, Col 53). This underlines the importance of recognising the value and significance of human activity in shaping the natural beauty of the landscape, and that communities ought to be sustained so that their stewardship of the land that contributed to the special qualities of the area can continue.

Landscapes are a product of constant change, including those designated due to their „natural beauty". The purposes of AONB designation reflect this process of change, encouraging activities that conserve and enhance the special qualities of the area and minimising activities that present a threat to the unique character of the landscape.

Why is the Forest of Bowland an AONB?

The Forest of Bowland was formally designated an Area of Outstanding Natural Beauty (AONB) by Government on 10th February 1964. The area was designated as a landscape of national significance due to a variety of factors, including:

- The grandeur and isolation of the upland core
- The steep escarpments of the moorland hills
- The undulating lowlands
- The serenity and tranquillity of the area
- The distinctive pattern of settlements
- The wildlife of the area
- The landscape"s historic and cultural associations

WHY IS THE AONB SPECIAL?

Natural beauty is at the heart of what makes the Forest of Bowland AONB special: it is the reason why the Bowland landscape is designated of national and international importance; and of course, it's also a key factor in attracting visitors. This natural beauty is derived from the area's unspoilt countryside (i.e. a lack of large-scale or intrusive development) combined with a number of other distinctive qualities that contribute to the area's unique character or 'sense of place'.

The distinctive qualities of the Forest of Bowland AONB are numerous and varied, though in general terms they can be summarised using the following headings:

- Wild Open Spaces
- A Special Place for Wildlife
- A Landscape Rich in Heritage
- A Living Landscape
- Delicious Local Food and Drink
- A Place to Enjoy and Keep Special

These headings were developed as part of work undertaken in 2005 to identify and explore the AONB"s „sense of place" - that being the area"s unique feel and appearance, or what constitutes the area"s identity and makes it different from neighbouring areas. The headings are not intended to be exclusive or exhaustive - rather, they provide a framework by which the distinctive qualities of the AONB can be understood and communicated among relevant stakeholders, including visitors.

Wild Open Spaces

Over one third of the AONB is open moorland, making up the wild open spaces and remoteness that are so characteristic of the Forest of Bowland; a truly unique quality of the area and core to the AONB"s identity. However the AONB also comprises other landscapes including fringe farmland, woodland and open river and reservoir landscapes which contrast and complement the open moorland areas.

Across much of the AONB the landscape appears treeless, yet historically the fells were once cloaked in woodland and through a combination of changes in climate and woodland clearances by Bronze Age farmers they have become largely treeless today. The resulting open views and fells give the impression that this is a wilderness, an untouched natural landscape, but it is in fact the result of many human influences.

The fells are largely intact and extensive in area, crossed by only a few minor, unfenced roads. The Trough of Bowland is perhaps the most famous, following a narrow valley that once carried melting ice from the glaciers covering the fell tops.

A Special Place for Wildlife

The Forest of Bowland AONB supports many important habitats and species, which contribute significantly to the area"s landscape character and „sense of place".

The Bowland fells support rare and endangered species associated with a very rare mosaic of upland habitats. At lower levels the ancient woodlands contain an array of colourful flowers; whilst the few remaining traditionally managed pastures and meadows are an oasis for wildflowers and insects. Numerous rivers and watercourses provide habitats for salmon, brown and sea trout, as well as birds such as kingfisher, dipper, grey wagtail, common sandpiper and oystercatcher. Otters are also present along rivers on the northern side of the Bowland Fells.

Other attractive features are more unlikely such as roadside verges and more recently formed sites, such as reservoirs and old quarries, providing new refuges for wildlife. Similarly the quarries and rock exposures reveal important geological information.

Bowland is in fact an internationally important area for conservation, as nearly one fifth of the AONB is designated as a Special Protection Area under the European Birds Directive. The Forest of Bowland also contains several Special Areas of Conservation and 13% of the land area (across 23 sites) is designated as Sites of Special Scientific Interest (SSSIs) under UK legislation.

In addition, there are 456 wildlife sites covering around 10% of the AONB, which form part of a national network of non-statutory sites that are recognised for their ecological value. In the Lancashire part of the AONB they are called Biological Heritage Sites (BHS); whilst in the Yorkshire part of the AONB they are known as Sites of Importance for Nature Conservation (SINC).

This valuable habitat is a big attraction for visitors to the AONB – many keen birdwatchers visit Bowland just to catch a glimpse of the hen harrier, the area"s iconic bird of prey, which breeds in very few other places in England. Or to see the wading birds that arrive in spring to nest and rear their young on the open farmland and moors of Bowland, such as lapwing, snipe, curlew and redshank.

A Landscape Rich in Heritage

In the Forest of Bowland AONB, the past exists very much in the present. It is the subtle interplay between the fascinating physical remains of the past, often sublime landscape patterns, and the mysteries of the essentially unknowable, that gives the AONB"s archaeological and historic landscapes their much appreciated and yet often indefinable special qualities.

Visually the predominant historic patterns which are readily perceived in the Bowland landscape are medieval in date, demonstrating remarkably strong continuity in landownership, community and management over the centuries. This manifests in present day land uses such as expanses of open moorland or contrasting small stone walled pastures, as well as the distribution and form of settlement, local vernacular and place names. For example, the word „Bu" (in „Bolland" or Bowland) is Old Norse for cattle, and „Pen" in Pendle means hill.

There is evident contrast in the villages in Bowland – some are typical estate villages while others are more haphazard farming settlements or industrial hamlets. The large country estates had a controlling and significant influence over the nature of building and development within the AONB. For example the private estates were responsible for building the distinctive villages at places such as Slaidburn, Downham and Abbeystead, which are valued for their intactness, strong physical form and characteristic vernacular architecture.

There are notable grand halls, parks and houses at Browsholme, Leagram and Quernmore. Remains of motte and bailey castles can be found in the Lune Valley and the ruins of a Cistercian abbey are preserved at Sawley.

Overall, the area holds almost 900 listed buildings and designated heritage assets (818 Listed Buildings, 48 Grade I and II* Listed Buildings, 20 Scheduled Monuments and one Registered Park and Garden). Collectively these historic and cultural elements of the environment serve to enrich the landscape's scenic quality, meaning and value.

A Living Landscape

The landscape of the Forest of Bowland has been managed by generations of farmers and landowners.

In the past some land management practices have caused damage to important wildlife areas and/or landscape features – for example, the draining of moorland and meadows has caused a loss of species; and the fertilising and early harvesting of meadows has reduced the number of wildflowers. Today, however, much stronger regulations are in place to help ensure that land management improves habitats for wildlife, and management of features such as hedgerows and stone walls, rather than causing damage. Bowland farmers have also become much more environmentally aware and many are now using agri-environment schemes to conserve and enhance habitats for wildlife and manage important landscape features on their farms. Some farmers have also developed more sustainable and efficient farming practices, whilst remaining sympathetic to the environment; particularly through initiatives such as Natural England's Catchment Sensitive Farming.

Despite farming continuing to go through a period of significant change, the Forest of Bowland is still an important agricultural production area. Farmers and landowners work closely with the AONB and the farming community is vital to the local economy. Sheep and beef farming dominate the upland areas, while dairy farming remains the major land use in the valleys (although this is in decline).

Extensive areas of moorland are managed specifically for grouse shooting. Management includes annual heather burning from October to mid-April, which encourages the growth of new young heather shoots as food for the red grouse.

Much of Bowland's upland core also provides water for thousands of homes and businesses in Lancashire and the North West of England. United Utilities plc. own and manage significant landholdings within the AONB as water catchment land.

Many village communities were once reliant on manufacturing (such as cheese making), as well as local industry associated with lead mining and lime production. Nowadays, however, communities rely on a greater diversity of activities, in particular employment within the tourism industry.

Delicious Local Food and Drink

Delicious local food and drink is a special quality of the Forest of Bowland AONB - not only because it supports the economy, but also because it is an important factor in the area"s unique sense of place. The traditional farming methods have helped to shape the AONB's landscape over time, including areas of rough grazing and open moorland, patterns of pastoral fields enclosed by distinctive dry stone-walls and hedgerows, farmsteads, barns and working villages. The complexity of this landscape provides for a wide variety of farm production systems. This complexity is reflected in the local food offer.

As the AONB is a sheep and beef farming area, you can find delicious local lamb and beef, as well as pork and even wild boar. The area also offers classic and modern varieties of Lancashire cheese, milk and ice cream and supports several organic farms and market gardens. There are also several farmers" markets around Bowland where you can meet the producers and taste and buy their local produce. By supporting those farmers who choose to carry on farming in traditional and sustainable ways, the AONB aims to help protect the Bowland landscape for this and future generations.

A Place to Enjoy and Keep Special

The purpose of AONB designation is to conserve and enhance the natural beauty of the area, whilst having regard to the social and economic needs of the landowners, farmers and communities. The AONB also has a responsibility to meet the demands for recreation and tourism, but only if this is consistent with protecting the natural beauty of the area. It is for this reason that the AONB Partnership has promoted the concept of sustainable

tourism within the Forest of Bowland: tourism that is dependent upon the area"s environment, and which seeks to conserve and enhance that environment, not detract from it.

The AONB is a popular visitor destination for the surrounding urban settlements of Lancashire and West Yorkshire. Its relatively „undiscovered" character is highly valued and generates loyalty amongst local people, day visitors and increasingly staying visitors. It is the combination of open moorland, and the ever-changing geography along the lower lying river valleys that not only gives the area its very own character, but also makes it a great destination for walkers, cyclists and wildlife enthusiasts. Although walking is the main recreational activity within the area, there are many opportunities to enjoy other activities such as mountain biking, horse riding, fishing, canoeing, gliding and paragliding.

Over recent years, the AONB Partnership has led the way in helping to develop sustainable tourism that takes account of its current and future economic, social and environmental impacts. In 2005 the Forest of Bowland AONB became the first protected area in England to be awarded the European Charter for Sustainable Tourism in Protected Areas, and this honour was repeated when the Charter was re-awarded in September 2010. The Charter is awarded to protected areas that are delivering tourism that is both nature and landscape friendly and which contributes to the economic development of the region. The Charter approach ensures that organisations, local people and businesses are working together to protect the area, whilst at the same time increasing opportunities for visitors to discover and enjoy its special qualities.

THE AONB PARTNERSHIP

The majority of land in the Forest of Bowland AONB is privately owned and used for agricultural purposes, although the use of the area for leisure and tourism is of increasing importance. The co-operation of those involved in agriculture, tourism and development is therefore vital to the ongoing management of the AONB.

Joint Advisory Committee (JAC)

Delivery of the AONB Management Plan is encouraged through effective partnership working and not through enforcement. Since it was constituted in 1986, the Joint Advisory Committee (JAC) has been responsible for strategic decision-making and liaison between the wide range of organisations and interests within the AONB.

The AONB JAC objectives are to:

- Protect, conserve and enhance the natural and cultural heritage of the Forest of Bowland AONB
- Promote the sustainable social and economic development of the area, particularly where such activity conserves and enhances the environment
- Encourage enjoyment of the area where it is consistent with the first two objectives

The current JAC membership comprises the following organisations:

- Lancashire County Council
- North Yorkshire County Council
- Craven District Council
- Lancaster City Council

- Pendle Borough Council
- Preston City Council
- Ribble Valley Borough Council
- Wyre Council
- Lancashire Association of Local Councils
- Yorkshire Local Councils Association
- Natural England
- United Utilities plc
- Environment Agency
- Royal Society for the Protection of Birds (RSPB)
- The Ramblers Association
- Bowland Land Managers Forum
- Bowland Experience Ltd.
- Champion Bowland (formerly Bowland Tourism Environment Fund)
- Friends of Bowland

AONB Unit

The Forest of Bowland AONB benefits from dedicated staff, responsible for co-ordinating and delivering AONB projects and activities. This dedicated staff team is known collectively as the AONB Unit. The responsibility of the AONB Unit includes:

- Coordinating and managing the AONB Partnership
- Developing and managing key projects
- Raising funds to support the work of the AONB Partnership

- Working closely with local communities and businesses
- Raising awareness about the importance of the AONB

Since 2011/12, the AONB Unit has produced a rolling three-year business plan with detailed objectives and actions to guide the Unit's day-to-day activities.

Partnership Funders Group (PFG)

A Partnership Funders Group (PFG) primarily comprises officers from the key funding partners (local authorities, United Utilities and Natural England), which meets regularly with the AONB Unit and provides the JAC with support. The PFG considers budget and policy issues, and also provides technical and professional advice and assistance to the JAC in fulfilling its obligations.

Other Partnership support

The AONB also benefits from other, additional personnel who work in support of the AONB Partnership. These include:

- Two Lancashire County Council Senior Environmental Project Officers (previously known as Countryside Officers) operate in the area, one covering Bowland North and West and the other Bowland East and Pendle Hill. The Senior Environmental Projects Officers are involved in a broad range of service delivery and project development, providing an advisory service, helping to attract funding and providing key links with farmers and landowners in the area

- Wyre Council also operates the Wyre Coast and Countryside Service, whose staff and volunteers spend a significant proportion of their time working in the Wyre part of the AONB

- Other key AONB partner organisations involved in the delivery of Management Plan actions including Natural England; the Environment Agency; United Utilities; the Wildlife Trust for Lancashire, Manchester & North Merseyside; RSPB; Rivers Trusts, landowners and farmers; tourism businesses; community and voluntary groups and parish councils

- Parish Lengthsman Schemes (supported by the AONB Partnership) operate within the parishes of Barley-w-Wheatley Booth, Blacko, Bolton-by-Bowland and Gisburn Forest, Caton-w-Littledale, Melling-w-Wrayton, Downham, Goldshaw Booth, Higham-w-West Close Booth, Hornby-w-Farleton, Lawkland, Nether Wyresdale, Newton-in-Bowland, Pendleton, Roughlee Booth, Sabden, Sawley, Slaidburn, Tatham, West Bradford and Wiswell. The Parish Lengthsmen carry out small-scale environmental improvement and maintenance tasks on behalf of, and working with, the local community

- Full-time and volunteer ranger services operate in the AONB, comprising staff from both Lancashire Countryside Ranger Service and Wyre Coast and Countryside Service. The ranger services focus primarily on access and visitor management in the AONB"s "honeypot" sites, gateways and access land

AONB Partnership Successes and Achievements (2009 – 2014)

Below are just some of the AONB Partnership's successes and achievements during the previous plan period from 2009 to 2014. These have been achieved through close partnership working between the AONB Unit, partner organisations, tourism businesses and community groups:

AONB & RSPB Outreach Education Project – Since the project began in 2008 the Forest of Bowland AONB/RSPB Outreach Education Project has worked with 1200 school children in 33 primary schools in the AONB and surrounding areas.

RSPB Bowland Wader Project - to date RSPB has engaged with over 185 landowners through the Bowland Wader Project, with the majority delivering some form of positive management for breeding waders. 81 of these farms are doing so through Natural England"s Environmental Stewardship schemes.

Bowland Experience Limited (BEx) - formed as a new company in August 2009 for the development, support and promotion of commercial tourism operators. BEx currently has over 100 business members who are involved in developing tourism cluster projects (e.g. Electric Bicycle Network) and networking events and training such as social media and green marketing.

Establishment of Champion Bowland - the new name for the former "Bowland Tourism Environment Fund", confirmed in March 2013. A significant donation to Champion Bowland in 2012 was from monies raised by the Three Fishes (Ribble Valley Inns) through 'visitor giving', raising £8,500 towards the AONB Tramper developments.

Sustainable Catchment Management Programme (SCaMP) – this ground-breaking United Utilities initiative was completed in 2010. The programme applied an integrated approach to catchment management on the United Utilities Bowland and the Peak District estates. SCaMP helped the company to deliver government targets for SSSIs, enhance biodiversity, ensure a sustainable future for the company's agricultural tenants and protect and improve water quality. Much of the work was funded by both the utility company and through Natural England's Environmental Stewardship Scheme.

Brennand and Whitendale Focus Group – completing in spring 2013, this major infrastructure project has seen United Utilities decommission a number of water intakes along the two rivers and refurbish those that remain. The multi-million pound project has been funded by both the Environment Agency and United Utilities. Under a new agreement with the Environment Agency, United Utilities will ensure that water is only taken from the rivers when it is plentiful. By restoring a more natural flow to these two rivers, there is a greater opportunity to enhance and protect important seasonal variations, leading to improvement of an important habitat for fish and aquatic invertebrates.

Langden Brook Gravel Re-introduction Project – this partnership project involves the Environment Agency, United Utilities and Ribble Rivers Trust to study the potential benefits of re-introduction of gravels in the Langden Brook. Gravel is held up in the river system by man-made barriers associated with drinking water abstraction. The movement of the gravel downstream is very important for fish habitat, so this study is investigating what happens if gravel is artificially moved beyond these barriers and re-introduced into the river.

Wyre Coast and Countryside Volunteers - this small team of volunteers and staff help to organise healthy outdoor activities and events (including an annual walking festival) to help locals and visitors enjoy and understand the protected natural environment. In a typical year the team of volunteer rangers and countryside staff complete over 1000 site patrols supporting 8500 visitors.

Friends of Bowland – established in 2012 to provide a focal point for local volunteers interested in practical conservation work, environmental training, research in to local landscape heritage and organising social events celebrating the special AONB landscape..

Second Charter Mark for the AONB - in July 2010 the Forest of Bowland AONB was re-awarded the European Charter for Sustainable Tourism in Protected Areas for 2010-15. This followed on from our initial achievement in 2005 of being the first Protected Landscape in England to receive the award.

Lancashire Green Tourism Project – 2011 saw the completion of this business development project supporting businesses across Lancashire as well as Bowland in their commitment to being more sustainable. Over the three years 56 businesses achieved Green Tourism Business Scheme accreditation.

The AONB Partnership received a **Global Responsible Tourism Accolade** in 2011 as runner-up for best green destination in the International Responsible Tourism Awards.

The Bowland Symposium – In 2012 the AONB organised a two-day conference showcasing sustainable tourism in the Forest of Bowland AONB, attracting 80 delegates from other protected landscapes from all over the UK.

Undergrounding of Overhead Power Lines - as part of the £5.4M OFGEM Undergrounding for Visual Amenity (UVA) programme running from 2010-2015, Electricity North West has been working with the Forest of Bowland AONB to identify visually intrusive sections of overhead lines for undergrounding. Schemes have included Littledale and Roeburndale, Stephen Park, Champion Moor, Waddington Fell and Chapel Croft, near Newton-in-Bowland.

Lancashire Witches Walk – the LCC Environment & Community Project team helped secured funding from the Lancashire Environmental Fund, Heritage Lottery Fund and the AONB Sustainable Development Fund to establish this new long distance walking route. It was developed as part of the commemoration events during the 400th anniversary of the Lancashire Witch Trials, in 2012.

Bleasdale Fells Moorland Restoration - Since 2011, the AONB Partnership helped to secure over £350,000 from the Environment Agency and Natural England, to restore SSSI blanket bog habitat on three of the Bleasdale Fells: Fairsnape, Holme House and Fiendsdale Head. During 2013

volunteers helped to re-vegetate the peat by planting a total of 3000 cottongrass, crowberry, bilberry, heather, cowberry plug plants and translocation of *Sphagnum* mosses.

Traditional Boundaries - The AONB Traditional Boundaries programme has provided grant aid towards positive management of hedgerows, dry stone walls and rail fencing. Training on these traditional skills is provided for volunteers, local contractors and farmers alongside an annual hedge laying competition. In a typical year between 1500 and 2000m of hedges are laid and 500m of hedgerows replanted.

Bowland Hay Time Project - The Forest of Bowland AONB joined forces with the Yorkshire Dales Millennium Trust (YDMT) in 2012 to run a two year upland hay meadow restoration project in Bowland. Funding from the Lancashire Environmental Fund and the AONB supported the employment of a project officer; and with additional support from Natural England's Environmental Stewardship Scheme, the project has been able to exceed its target of restoring 40 hectares of hay meadows. One of the highlights has been the designation of Bell Sykes SSSI meadow, near Slaidburn as a Coronation meadow. The Coronation Meadows project, initiated by HRH Prince Charles, has listed 60 meadow sites across England to become donors for further restoration work.

Landscape Stories – this heritage project worked with local communities, schools and visitors to understand and celebrate some of the traditional rural industries and activities which have been influenced by, and in turn left their mark on, the Forest of Bowland landscape. By the end of the project in 2011, over 600 people, including 250 pupils from 10 schools had been involved.

St. James' Church Archaeology Project - the original church of St. James, Stocks-in-Bowland, opened its "doors" to visitors once again in 2012 – almost 80 years after being demolished during the construction of Stocks Reservoir. Following a sterling effort by volunteers the foundations of the church, which was built in 1852, were uncovered over a series of weekend tasks which began back in October 2011 and finished in May 2012.

Access for All - since 2006 Lancashire County Council and Wyre Coast and Countryside Service, in conjunction with the Forest of Bowland AONB, has been working with rural tourism businesses and the voluntary sector plus other partners, to expand the use of Trampers beyond publicly managed recreation sites. Several tourism businesses have collectively developed Tramper schemes – Wyresdale Wheels and BEx. As a result, there are now an additional 10 Trampers based in the private and voluntary sector in Bowland. Over the winter of 2012-2013 new Tramper trails were developed and to date 13 trails (totalling more than 30 miles) have been developed.

Electric Bike Network – this project was launched in 2013 by a group of BEx businesses. Visitors can now enjoy the simple pleasure of cycling through the Bowland's outstanding landscapes, whilst the electric bikes do much of the hard work. Three tourism accommodation providers operate as hire stations with another 11 businesses provide charging points. This newly established scheme links to the national 'Electric Bike Network' initiative involving protected landscapes across the UK.

Bowland Land Managers Forum - was initiated by the AONB Unit in 2012 to help maintain strong links between the work of the AONB Partnership and the landowners and farmers involved in managing the area. The Forum was successful in obtaining Natural England funding to support the development stages; including the establishment of an AONB land management statement to inform the review of the AONB Management Plan, updating and dissemination of a land management advice note on ticks and louping ill, and developing research on the economic profile of the AONB landscape to help shape future rural development programmes for the area.

Sustainable Development Fund - since 2005 the AONB Unit has managed the Sustainable Development Fund, and since 2009 it has awarded 48 projects a total of £192,000. This has levered in an additional £375,000, making a total of over £0.5 million being spent on sustainability projects in the Forest of Bowland by an array of partners including village halls, arts groups, wildlife organisations and businesses.

A Leap in the Park – 2013 saw the publication of a report on medieval deer parks in the AONB, alongside the launch of a new project: A Leap in the Park. A small grant of £9600, awarded by Heritage Lottery Fund as part of their 'Telling Our Stories' scheme, enabled the AONB Unit to carry out further research and to broaden the appeal of the study by engaging with more people locally and creating new interpretation.

Festival Bowland – the annual programme of events and activities (averaging 70-80 events per annum) organised together with landowners, businesses, local experts and local authorities to celebrate what makes the AONB such as special place for landscape, wildlife and people.

DEVELOPMENT OF THE MANAGEMENT PLAN

The purpose of the plan

As a nationally important landscape, the Forest of Bowland AONB experiences a variety of management pressures on its landscape, such as changing demands on agricultural land, telecommunication and energy infrastructure, tourism facilities and the need to develop a sustainable rural economy. The Forest of Bowland AONB Management Plan seeks to provide a strategic context within which the problems and opportunities that these pressures present are addressed and guided in a way that safeguards the national importance of this special landscape.

The role of the Forest of Bowland AONB Management Plan is to provide positive and pro-active management; highlighting the special qualities of the designated area, the importance of the relevant landscape features and identifying those features which are vulnerable to change. It is a statutory requirement of the Countryside and Rights of Way Act (CRoW) (2000), which requires the relevant planning authorities to jointly publish an AONB management plan that formulates policies (herein referred to as „objectives") for undertaking the management of the whole AONB.

The Management Plan outlines an integrated vision for future development of the AONB based on the highest level of shared aspirations for the area, taking into account relevant international, national, regional and local policies. It presents objectives specific to the AONB that will enable this vision to be pursued effectively and allocates responsibility for each objective and related actions to relevant partners. The Management Plan also details the process by which progress towards these targets will be assessed.

All Management Plan objectives have regard to the context of the AONB concerning the surrounding geographical area - that is to say objectives are not solely „inward looking" and wherever possible aim to take account of the relevant landscapes, communities and key issues outside of the AONB boundary.

How the current plan was produced

The first Management Plan for the AONB was published in 1995 and the first statutory plan was published in 2004. The current plan (2014-2019) was published in March 2014 and succeeds the previous plans in guiding the work of the Joint Advisory Committee. The current Management Plan is the product of a series of targeted consultation exercises, together with a literature review.

Consultation

Production of the current AONB Management Plan has involved targeted consultation with both communities of place (i.e. people who live and work within the AONB) and communities of interest (i.e. organisations with an interest or „stake" in how the AONB is managed). The 'communities of place' consultation workshops were designed and undertaken during June 2013 in the communities of Dunsop Bridge, Downham, Hornby and Tosside, with the assistance of S Robinson Consulting. During July 2013 a series of 5 'themed' workshops (e.g. landscape and biodiversity, sustainable tourism) were held involving organisations and individuals with more specific interests in the AONB.

Literature review

The current Management Plan incorporates the results of a literature review of relevant plans, strategies and policies, and has sought to integrate these where appropriate. The literature review and subsequent review of the Management Plan was undertaken by the Principal AONB Officer. See Appendix 1 for a list of documents included in the literature review.

The important focus of the AONB Management Plan - and what differentiates it from these other plans and strategies - is the purpose of the AONB, namely to conserve and enhance the natural beauty of the Forest of Bowland. The plan recognises, however, that this can only be achieved by complementing other plans and strategies, aiming to support and realise their policies for action within the context of the AONB as a whole.

POLICY CONTEXT FOR THE MANAGEMENT PLAN

Planning and development in AONBs

The fundamental principle underlying planning and development management in AONBs is that any new development within the AONB that has a materially adverse impact can only proceed where it is demonstrated that it satisfies an over-riding national need. All development is expected to conform to a very high standard of design, to be in keeping with local distinctiveness and should seek to conserve and enhance the AONB"s natural beauty.

Within Section 85 of the CRoW Act (2000) there is a duty on all relevant authorities to have regard to this purpose in exercising or performing any functions in relation to, or so as to affect land in AONBs. Sections 88 & 89 of the Act states that each local authority and Conservation Board shall prepare and publish a Management Plan for their AONB which should then be reviewed at intervals of no more than 5 years. Management Plans are adopted statutory policy of the local authority.

The Government has confirmed that the landscape qualities of National Parks and AONBs are equivalent, so the protection given by the land use planning system to natural beauty in both types of area should also be equivalent. The AONB designation is also of international importance, recognised as a Category V Protected Landscape by the International Union for the Conservation of Nature (IUCN).

A local planning authority has a duty to have regard to the conservation and enhancement of natural beauty (as defined by, and the appropriate management of the area, being set out in the statutory Management Plans), this is achieved through partnership with AONB's and by reference to their Management Plans as a material consideration.

The AONB Partnership (and Unit) is not a statutory consultee for planning applications or the formulation of Local and Neighbourhood Plans. However, the Unit does provide advice and guidance for local planning authorities on landscape planning matters, where requested. Natural England

is the statutory consultee for landscape-related planning issues (alongside its broader land use planning remit for protection and conservation of the natural environment). The AONB Unit liaises with the Natural England's Land Use Planning team on these and other related matters.

National Planning Policy Framework

In March 2012, the Department for Communities and Local Government published the National Planning Policy Framework, which sets out the Government"s planning policies for England and how these are expected to be applied. The Framework states that: 'At the heart of the NPPF is a presumption in favour of sustainable development, which should be viewed as a golden thread running through both plan-making and decision-taking'.

'Sustainable Development' is defined as having three dimensions: environmental, economic and social. It goes on to define these dimensions in more detail:

'These dimensions give rise to the need for the planning system to perform a number of roles:

- *an economic role – contributing to building a strong, responsive and competitive economy, by ensuring that sufficient land of the right type is available in the right places and at the right time to support growth and innovation; and by identifying and coordinating development requirements, including the provision of infrastructure;*
- *a social role – supporting strong, vibrant and healthy communities, by providing the supply of housing required to meet the needs of present and future generations; and by creating a high quality built environment, with accessible local services that reflect the community's needs and support its health, social and cultural well-being; and*
- *an environmental role – contributing to protecting and enhancing our natural, built and historic environment; and, as part of this, helping to improve biodiversity, use natural resources prudently, minimise waste and pollution, and mitigate and adapt to climate change including moving to a low carbon economy.*

...These roles should not be undertaken in isolation, because they are mutually dependent.'

The NPPF also provides specific planning guidance for development planning and decision-making in relation to AONBs. It confirms that great weight should be given to conserving landscape and scenic beauty, and that AONBs have the highest status of protection in relation to landscape and scenic beauty. AONBs and their management plans are material considerations in planning. The „great weight test" is significant and it is one of the most stringent legal tests that can be applied under planning law. In specific relation to major development[1], the NPPF states that planning permission should be refused for major developments in AONBs except in exceptional circumstances and where it can be demonstrated they are in the public interest.

The NPPF confirms that local planning authorities should set out the strategic priorities for their areas within Local Plans and accordingly deliver the conservation and enhancement of the natural environment, including landscape. The NPPF also confirms that allocations of land for development should prefer land of lesser environmental value (counting the AONB as high value), that local planning authorities should set evidence and criteria based policies against which proposals for any development on or affecting landscape areas will be judged (development affecting AONBs includes impact on their setting) and that planning should contribute to conserving and enhancing the natural environment.

Landscape Characterisation

Landscape character is defined as *"a distinct, recognisable and consistent pattern of elements in the landscape that makes one landscape different from another, rather than better or worse"* (Landscape Character Network). Put simply, landscape character is that which makes an area unique or different from neighbouring areas (in much the same way as we use the word "character" to describe differences between people).

National Character Areas (NCAs) divide England into 159 distinct natural areas. Each is defined by a unique combination of landscape, biodiversity, geodiversity and cultural and economic activity. Their boundaries follow natural lines in the landscape rather than administrative boundaries, making them a good decision making framework for the natural environment. The AONB is largely contained within two NCAs, 'Bowland Fringe and Pendle Hill' (NCA 33) and 'Bowland Fells' (NCA 34). A small area of Pendle Hill also falls within 'Lancashire Valleys' (NCA35). For more useful information on National Character Areas, including Area Profiles and Statements of Environmental Opportunity visit:
http://www.naturalengland.org.uk/publications/nca/default.aspx#profiles

[1] The Town and Country Planning (Development Management Procedure) (England) Order 2010

In addition national landscape character assessment, a number of local landscape character studies have been undertaken to better understand and describe the character of the Forest of Bowland landscape. The most recent and comprehensive of these is the Forest of Bowland AONB Landscape Character Assessment:

Forest of Bowland AONB Landscape Character Assessment

In 2009, Chris Blandford Associates were commissioned by the Partnership to undertake a detailed landscape character assessment of the AONB. The overall study consists of two principal sections dealing with landscape classification and managing landscape change respectively. In general, the key characteristics of the AONB landscape, as identified by this landscape character assessment, are as follows:

- Grandeur and isolation of the upland core
- Open expanses of moorland
- Cultural landscape of upland farming
- Historic landscape management as royal hunting forest and more recently as sporting estates
- Rural landscape of dry stone-wall enclosed pastures, stone built farms and villages
- Wooded pastoral scenery and parkland
- Steep scarps, deeply incised cloughs and wooded valleys
- Broad river valleys
- Contrasting gritstone/limestone geology

The landscape character assessment also provides analysis on the landscape sensitivity and its capacity to accommodate change, alongside guidelines for planners, developers, land managers and others on managing landscape change, within each of the landscape character types of the AONB. A copy of the AONB Landscape Character Assessment (2009) is available at: www.forestofbowland.com/publ_plans

Historic Landscape Characterisation Programme

The Lancashire Historic Landscape Characterisation (HLC) Programme was carried out between January 1999 and October 2000. The original study area comprised the county of Lancashire and the unitary authority areas of Blackburn with Darwen Borough Council and Blackpool Borough Council. The work was carried out by the Archaeology Service of the County Council's Environment Directorate, with the support of English Heritage. The aim of the Lancashire programme was to characterise the distinctive, historic dimension of today's urban and rural environment in Lancashire. Additional work was also undertaken to extend the mapping to Sefton Metropolitan Borough Council (Merseyside) and the area of Craven District Council outside the Yorkshire Dales National Park (North Yorkshire).

The Historic Landscape Characterisation Programme remains a very important source of information about the historic landscape of the Forest of Bowland AONB. The report on the project is divided into three parts: Part I provides an introduction both to HLC and to Lancashire, including a brief description of the county"s landscape; Part II describes the characterisation methodology applied; while Part III is a summary presentation of the results.

Assuming broad historic character types, 'Enclosed Land' accounted for well over half the land area of Lancashire (62% or 201,905 ha; see figure above). 'Moorland' (11%), 'Modern Settlement' (8%) and 'Sand and Mudflats' (5%) made up the other main land cover types within the county, which together with 'Enclosed Land' accounted for 86%. 'Woodland' covered just over 3% or approximately 11,000 hectares, 'Water' (mainly reservoirs) and 'Saltmarsh' both just under 4,000 ha. and 'Ornamental' and 'Ancient Settlement' 2,000 ha. Built-up areas, including 'Settlement, Industry, Recreation and Communications' account for over 12% of the land area and tend to be broadly concentrated along the coast and river valleys and in East Lancashire.

A copy of the full report is available on website for Lancashire County Council Archaeological Service.

Benefits to Society from the AONB Landscape

The special qualities of the Forest of Bowland AONB landscape provide a wide range of benefits to society. These benefits derived from nature are often described as *'ecosystem services'* and sustainable economic growth relies upon them:

- AONB farmers produce predominantly extensive beef and sheep on the fells with more intensive beef, sheep and dairy farming within the valleys and lowland fringes. Hill farming systems concentrate on the production of suckler beef and store lambs. In addition, the western fringes of the AONB also support a number of other enterprises including pig, poultry and horticulture.
- Timber is produced from forestry operations and woodfuel and wood products through small-scale woodland management.
- Upland river catchments of the AONB provide water for thousands of homes and businesses in Lancashire and the North West of England. The sustainable management of catchment land by the water utility company helps to improve water quality; reducing the need for more costly 'end-of-pipe' water treatment.
- Healthy, functioning blanket bog on the tops of the fells acts as a carbon store and work to restore and re-wet areas of blanket bog will help boost carbon sequestration. In addition, these blanket bogs are also important in helping to mitigate downstream flood risk for communities, both inside and out of the AONB.
- The extensive rights of way network and access land areas within the AONB, offering access to important wildlife sites and places of historical interest, provides excellent recreational opportunities and supports the health and well being of both residents and visitors.
- Other benefits provided by the AONB landscape include the dispersal and cycling of nutrients, pollination and, with the appropriate technology in the correct location, a source of renewable energy (such as micro-hydro, small-scale wind, solar and biomass). It is also a source of clean air, tranquillity and freedom from noise and light pollution.

Some products like timber have a known financial value, but in other cases, such as the role of bees in pollinating crops or the storage of carbon in woodland and wetlands, we are only just beginning to understand their role and financial value. A better understanding of the wide range of public benefits provided by the special landscape of the AONB and their value both in monetary and non-monetary terms, can help us design and plan appropriate management activity to ensure that our natural resources and systems are more effectively supported in the future.

Many of the objectives within the Management Plan will influence the management of land and ecosystems in the AONB, and ensure that effective management is helping to sustain and improve the range and quality of public benefits or ecosystem services that are provided. An initial analysis of ecosystem services provided by the AONB landscape can be found in Appendix 2 to the Plan, 'Ecosystem Services in the Forest of Bowland AONB'.

A VISION FOR THE FOREST OF BOWLAND AONB

Vision Statement

The objectives and actions of the AONB Management Plan need to be guided by a long-term goal, or vision. The previous Management Plan set out a vision of how the AONB should ideally look into the future. This same vision has been carried forward to the new Plan (2014-2019) largely unchanged, as the aspirations it describes are still very much at the heart of local AONB stakeholders' values and concerns.

The vision for all partners to work towards is that:

The Forest of Bowland AONB retains its sense of local distinctiveness, notably the large-scale open moorland character of the Bowland Fells, traditional buildings and settlement patterns of villages, hamlets and farmsteads. Natural and cultural heritage is sympathetically managed and contributes to a sustainable and vibrant local economy. The management of the AONB has improved the quality of the landscape for all.

How will the AONB Partnership achieve this vision?

The following Forest of Bowland AONB 'outcomes' were developed and agreed by the JAC in 2011, as part of the AONB Unit's Business Plan. To offer 'read-across' between this and the strategic plan for the National Association for AONBs, the following four outcomes have been adopted to provide the framework for the Management Plan, helping the Partnership to achieve the successful delivery of the Plan and ultimately the above vision for the AONB:

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"

DELIVERING THE MANAGEMENT PLAN

Introduction

The following section outlines information on:

- Key issues affecting the AONB landscape;
- AONB Partnership objectives and actions to be deliver the AONB Management Plan 2014 - 2019;
- AONB Partnership 'ways of working'.

Key issues

The key issues affecting the AONB are driven by a number of factors including the profound implications of climate change, development pressure, the pursuit of economic growth, demands for recreation and changes in modern agriculture and the broader economy. These key issues or 'forces for change' are likely to continue to affect the AONB throughout the next plan period. These sections precede each set of objectives and actions and do not discuss these issues at length, but seek to provide an overview and a context within which the Plan will need to operate.

Please note: key issues have been identified as part of the literature review and through consultation. While all of the issues listed have potential to impact on the AONB, not all of those listed are the responsibility of the AONB itself – i.e. they may be beyond the scope of the AONB"s purpose of designation.

Objectives

The following delivery plan tables list AONB Partnership objectives and actions to be delivered during the Plan period and allocate responsibility for these to a lead partner (emboldened) and other key partners, with details of targets and timescales for each action. The AONB Joint Advisory Committee, Partnership Funders Group and AONB Unit will seek to prioritise future partnership delivery through regular meetings and the annual business planning process.

All Management Plan objectives have regard to the setting of the AONB; that is to say objectives are not solely „inward looking" and wherever possible aim to take account of the relevant landscapes, communities and key issues outside of the AONB boundary.

'Ways of working'

The concept of collaboration and working together with others to achieve success underscores all AONB Partnership work. Most AONB Management Plan delivery needs to be done by encouragement through effective partnership working and not enforcement. Under each outcome, AONB 'ways of working' are detailed; outlining how the AONB Partnership and Unit aims to carry out its day-to-day work, particularly where these tasks do not readily produce SMART (Specific, Measurable, Attainable, Relevant and Time-bound) objectives or actions.

AONB Outcome 1 - An Outstanding Landscape of Natural and Cultural Heritage

Vision

An unspoilt and unique landscape of the highest quality; richness and diversity of cultural and natural features; a landscape where tranquillity can be found.

Key Issues

- Predicted decrease in EU/Defra funding for agri-environment payments available to farmers and land managers from 2014 onwards through the New Environmental Land Management Scheme (NELMS); and the likely landscape impact of these changes
- National and international initiatives and obligations such as the European Landscape Convention, EU Water Framework Directive and BD2020[2] which require a robust knowledge of the landscape resource
- Threats to key natural assets such as ground-nesting birds and blanket bog – for example, through physical disturbance due to changing land management practices; soil compaction; drying out of soils from drainage or climate change that can lead to a reduction in food sources
- Recent breeding failures (in 2012 and 2013 seasons) of the hen harrier within the Bowland Fells Special Protection Area
- Invasive alien species damaging ecosystems - e.g. Beech invasion of ancient woodland; invasive alien species along rivers; Himalayan balsam threatening bluebell woodland
- Lack of management of semi-natural clough woodland and areas of extensive conifer plantation, particularly on ancient woodland sites, reducing wildlife value and the potential for developing wood product markets to increase and improve woodland management
- Agricultural specialisation, intensification and farm amalgamation is resulting in a loss of semi-natural habitats and cultural features
- Lack of awareness of geodiversity value of the AONB
- Roadside verge management regimes adversely affecting verges with special biodiversity interest.
- Diffuse and point-source pollution of watercourses from both agricultural and non-agricultural sources

[2] Biodiversity 2020: A strategy for England's wildlife and ecosystem services (2011), Defra.

- Intensive fertiliser use and diffuse pollution continues in some areas leading to loss of biodiversity both on and off agricultural land (e.g. roadside verges), as well as affecting water quality
- Increased awareness of the value of „ecosystem services", such as carbon storage and sequestration, water quality, flood alleviation, recreation and health and well-being
- Small, fragmented patches of habitat are vulnerable to loss of biodiversity due isolation and changes in rainfall and temperature
- Potential change to cropping patterns and types of crops, in response to climate change, altering the character of the landscape
- Potential for hotter, drier summers leading to reduced ground water and drying out of blanket bog habitats, which can release carbon into the atmosphere
- Potential increased soil erosion due to sudden downpours or flooding and weakened soil structure
- Pressure for commercial-scale renewable energy infrastructure (in particular wind farms) resulting in changes to the character of the AONB
- The potential cumulative effects of small, single wind turbine developments clustered together resulting in changes to the character of the AONB
- Development of small-scale hydro-electric schemes, affecting water courses within and close to the AONB
- Potential development of unconventional gas exploitation (i.e. hydraulic fracturing or 'fracking') infrastructure within the AONB
- Changes to the planning system, following the publication of the National Planning Policy Framework
- Pressure for new development and building conversion in open, exposed landscape, which can be visually intrusive
- Small-scale cumulative development (e.g. building extensions, residential boundary treatment, roadside concrete curbing and signage) resulting in erosion of integrity and quality
- Development, traffic and lighting beyond the boundary of the AONB increasingly intruding on the quality of the landscape
- Some designated heritage assets (particularly Scheduled Monuments) in the AONB considered to be 'at risk'.
- Loss of traditional skills reducing the ability to effectively manage the traditional landscape features and buildings of the AONB

'Ways of Working'

<u>Landscape</u>

- Promote sustainable land management practices to help conserve and enhance the AONB landscape (based on 'guidelines for managing landscape change' within the Forest of Bowland AONB Landscape Character Assessment [2009])

- Participate in a range of fora and networks to represent AONB landscape interests

Biodiversity

- Encourage habitat creation and the buffering of existing habitats in line with BD2020 outcomes (and appropriate to landscape character), aiming to create more, bigger and more connected habitats
- Commitment to applying an 'ecosystems approach'[3] to management of the AONB landscape
- Collaborate with Natural England, Environment Agency, Forestry Commission and other national, sub-regional and local environmental organisations and interests through a range of fora, to co-ordinate actions for the conservation and enhancement of biodiversity within the AONB
- Work closely with AONB land owners, managers and farmers (via the Bowland Land Managers Forum) to facilitate effective consultation and communications relating to land management decisions likely to affect the sector
- Promote, encourage and facilitate 'High Nature Value' farming through provision of appropriate advice and guidance to land managers on agri-environment schemes
- Maintain regular communications with Natural England land management advisors on latest developments regarding agri-environment schemes, both nationally and within the AONB

Geodiversity

- Ensure conservation of geodiversity is considered for emerging development plan documents and minerals plans affecting the AONB

Planning and Development

- Provide advice and guidance on planning and landscape-related matters for local planning authorities, highway authorities, government agencies, developers and communities (based on 'guidelines for managing landscape change' within the Forest of Bowland AONB Landscape Character Assessment [2009]) to uphold the statutory duty for AONBs of 'conserving and enhancing the natural beauty of the landscape'.
- Contribute to and influence development plan documents (DPDs) of responsible local planning authorities
- Influence relevant planning and development policies and strategies at local, county and national level to uphold the statutory duty for AONBs of 'conserving and enhancing the natural beauty of the landscape'

[3] 'What Nature Can Do for You', Defra (2010)

AN OUTSTANDING LANDSCAPE OF NATURAL AND CULTURAL HERITAGE				
OBJECTIVES	**ACTIONS**	**TARGETS**	**TIMESCALE**	**KEY PARTNER(S)**
[1.1] Landscape **Recognise the founding principles of the European Landscape Convention and implement the AONB Landscape Character Assessment as an integrated approach to managing landscape change.**	[1.1A] Ensure all local planning authorities and other interested organisations have access to AONB Landscape Character Assessment GIS data layers and understand how these can be used as a planning tool	All LPAs supplied with GIS data layers. Hold at least 1 meeting per year with LPA or other partner to raise awareness of AONB LCA and its uses.	2014 Annually	**AONB Unit** LPAs Rivers Trusts NE
	[1.1B] Utilise the AONB Landscape Character Assessment to monitor landscape change within the AONB, as part of a 'State of the AONB' Report	AONB LCA used to establish baseline information in State of the AONB' report	2015	**AONB Unit** LCC Landscape Unit
	[1.1C] Continue to support the 'Traditional Boundaries' programme, managing and restoring hedgerows, dry stone walls and railing fences	Develop at least 3 traditional boundary restoration projects per year Hold 3 training events/competitions per year	Annually Annually	**LCC E&C Projects** AONB Unit Parish Lengthsman Schemes Friends of Bowland
	[1.1D] Establish new funding sources for the 'Traditional Boundaries' programme to supplement AONB support	Develop a fund-raising plan for 'Traditional Boundaries' Programme Submit bids for external funding, where available and appropriate	2014 2015	**LCC E&C Projects** AONB Unit
	[1.1E] Develop and disseminate advice note with design guidance for fencing in sensitive open landscapes (e.g. moorland, open river floodplains)	Advice note developed	2014	**AONB Unit** Rivers Trusts LCC E&C Projects

				NE EA BLMF
	[1.1F] Develop plan for managing landscape change due to loss of woodland and veteran trees through increased incidence of tree disease (e.g. Phytophthera ramorum, Chalara fraxinea)	Hold woodland management seminar/field visit Management plan developed	2014 2015	**LCC Countryside** **LCC E&C Projects** Lancashire Woodlands Project Woodland owners/managers
[1.2] Biodiversity and Ecosystem Services **Co-ordinate partner activity in conserving and enhancing biodiversity and in developing a better understanding and management of ecosystem services* within the AONB** ***BD2020 Outcome 1C:** At least 17% of land and inland water, especially areas of particular importance for biodiversity and ecosystem services, conserved through effective, integrated and joined up approaches to safeguard biodiversity and ecosystem services including through management of our existing systems of protected areas and the establishment of*	[1.2A] Re-establish an AONB Biodiversity Working Group (BD Working Group), representing the key agencies, local authorities, environmental organisations	Working Group re-established Produce a brief annual delivery plan for Working Group	2014 Annually	**AONB Unit** AONB JAC AONB partner organisations with biodiversity interest
	[1.2B] Carry out 'ecosystem approach' partnership assessment produced by Natural England	Partnership assessment completed	2014	**AONB Unit** AONB Partnership
	[1.2C] Contribute to research on the value of 'ecosystem services' provided by the natural environment of the AONB and communicate findings to a wide audience	Research opportunities with Natural England identified Research commenced	2014 2015	**Natural England** AONB Unit BLMF Rivers Trusts
	[1.2D] Explore opportunities for biodiversity offsetting with local planning authorities (recognising the mechanism as a last resort after options for avoidance and on-site mitigation have been exhausted)	Hold 'planning and development' seminar to discuss opportunities for biodiversity offsetting within the AONB .	2014	**BD Working Group** AONB Unit LPAs Environment Bank Landowners United Utilities

nature improvement areas				Ribble Rivers Trust
	[1.2E] Play an active role in the government's 'Catchment-based Approach' (CaBA) to river management and restoration for the Lune, Ribble and Wyre	Meet with EA catchment management staff and Rivers Trusts for Lune and Wyre re: CaBA Attend at least 2 Ribble Life stakeholder exchange meetings per year Investigate opportunities for catchment-based management options and agreements for the New Environmental Land Management Scheme (NELMS).	2014 Annually 2014	**Rivers Trusts** **EA** AONB Unit NE CSF United Utilities BLMF RSPB
[1.3] Habitats **Support the delivery of 'Biodiversity 2020: A Strategy for England's Wildlife and Ecosystem Services' Outcome 1A, 1B & 1D[#], with a particular focus on peatland, blanket bog, and other wet habitats, species rich grasslands and woodlands.** *[#]BD 2020 Outcomes:* *1A: Better wildlife habitats with 90% of priority habitats in favourable or recovering*	[1.3A] Ensure AONB's SSSIs are in favourable or recovering condition and take appropriate action to bring those SSSIs that are currently in recovering condition into favourable condition	Ensure 100% of the AONB"s SSSIs are in favourable or recovering condition Ensure at least 50% of SSSIs are in favourable condition	2019 2019	**Natural England** Landowners BD Working Group
	[1.3B] Carry out a mapping exercise of priority habitats (including local important and locally designated sites) and commission condition surveys of the priority habitats identified	Peatland and species-rich grassland habitat survey work complete Agree further work on priority habitat surveys (e.g. woodlands, mires and wet	2014 2014	**BD Working Group** LERN NEYEDC LCC Ecology AONB Unit

condition and at least 50% of SSSIs in favourable condition, while maintaining at least 95% in favourable or recovering condition *1B: More, bigger and less fragmented areas for wildlife, with no net loss of priority habitat and an increase in the overall extent of priority habitats by at least 20,000ha.* *1D: Restoring at least 15% of degraded ecosystems as a contribution to climate change mitigation and adaptation.*		grassland) Survey at least 2 additional priority habitats	2016	
	[1.3C] Develop opportunity maps for potential habitat creation and restoration for priority habitat identified; linking with LNP ecological frameworks research and mapping for Lancashire and priority areas identified in North Yorkshire (e.g Long Preston Wet Grasslands)	Habitat creation and restoration opportunities mapping developed for 4 priority habitats	2016	**BD Working Group** LERN NEYEDC Lancashire LNP North Yorkshire and York LNP
	[1.3D] Restore and re-wet areas of blanket bog habitat as identified in the AONB Peatland Restoration Plan	Restoration and re-wetting of 35 hectares of blanket bog habitat (subject to funding availability)	2019	**Lancashire Upland Peat Partnership** Pennine Peat Partnership AONB Unit Environment Agency Natural England United Utilities LWT Landowners/farmers
	[1.3E] Play an active role in local and regional peatland initiatives (e.g. Lancashire and Pennine Peat Partnerships) to seek additional funding to deliver AONB Peatland Restoration Plan	Lancashire Upland Peat Partnership restoration plan (incl. AONB data) complete AONB projects included in Pennine Peat Partnership bid for EU LIFE+ funding	2014 2014	**Lancashire Upland Peat Partnership** Pennine Peat Partnership AONB Unit EA Natural England United Utilities LWT

				Landowners/farmers
	[1.3F] Conserve, restore and create species-rich grassland habitats	Jointly deliver 'Networks for Nectar' project with YDMT (funded by LEF to end Sep 2015) Restore 10ha. of hay meadow Restore and ensure management of 12 small species-rich grassland sites	2015 2015	**AONB Unit** Yorkshire Dales Millennium Trust Landowners/farmers Lancashire Environmental Fund
	[1.3G] Support the creation of new native woodland in appropriate sites and the expansion of existing woodlands to reduce habitat fragmentation	Utilise woodland opportunities mapping to guide future woodland creation and expansion	2016 onwards	Lancashire Woodlands Project Forestry Commission NE Rivers Trusts United Utilities
	[1.3H] Conserve and enhance native woodland through appropriate management (e.g. small-scale, traditional coppice techniques), aiming to maintain good structure and maximise biodiversity	Hold woodland management seminar/field visit Secure funding for at least 1 pilot woodfuel economy project	2014 2016	LCC E&C Projects Team Lancashire Woodlands Project Forestry Commission BLMF Arnside and Silverdale AONB Existing woodfuel suppliers
	[1.3I] Liaise with local authorities to maintain or enhance the	Extend Ribble Valley pilot	2015	Highway Authorities

	biodiversity of roadside verges, through maintenance of appropriate and timely cutting regimes	'Roadside Verges' project to other local authority areas in the AONB		RVBC LCC Ecology RSPB Friends of Bowland
[1.4] Species **Support the delivery of 'Biodiversity 2020: A Strategy for England's Wildlife and Ecosystem Services' Outcome 3[$] regarding threatened species.** [$]*BD2020 Outcome 3: By 2020 we will see an overall improvement in the status of our wildlife and will have prevented further human-induced extinctions of known threatened species.*	[1.4A] Identify local and national 'species at risk' within the area; prioritise and carry out surveys where necessary and work with existing datasets/risk registers on populations of rare species in the AONB	Establish risk register Commission surveys for 2 'priority species at risk' Commission surveys for at least 2 further priority species at risk	2014 2015 2016	**BD Working Group** LERN BLMF Volunteer groups
	[1.4B] Develop local species recovery plans for priority 'species at risk' identified; ensuring synergy with national species recovery plans where these exist	Produce 4 local species recovery plans Produce at least 2 further local species recovery plans	2015 2016	**BD Working Group** BLMF Volunteer groups
	[1.4C] Continue to support research and monitoring and encourage implementation of habitat projects for characteristic bird species such as hen harrier, merlin, peregrine, ring ouzel, lapwing, snipe, redshank and curlew; including support for relevant species recovery plans	Identify and agree appropriate habitat intervention opportunities for at least 2 species	2016	**Natural England** RSPB United Utilities Landowners BD Working Group
	[1.4D] Support local actions to provide suitable conditions to re-establish hen harrier as a breeding species in the AONB, in line with the government's emerging national species recovery plan	Develop local actions to support the re-establishment of breeding hen harrier in the AONB	2014-15	**Natural England** **Defra** **BD Working Group** United Utilities Landowners

		Active participation in the new 'Northern England Protected Landscapes Hen Harrier Group'	Annually	RSPB AONB Unit
	[1.4E] Investigate feasibility of establishing pilot predator control areas to reduce the impact of predators on ground-nesting bird populations (waders in particular) within the AONB	Feasibility study complete If appropriate, seek funding to support establish at least one pilot predator control area	2015 2015	**BD Working Group** BLMF United Utilities Landowners
	[1.4F] Play an active role in county-wide Invasive Non-native Species (INNS) projects such as 'Lancashire Invasives', to help manage and eradicate Himalayan balsam, Japanese knotweed and Giant hogweed in the AONB	Organise 15 volunteer days per year Complete INNS Strategy and Action Plan Secure funding for continuation of county-wide INNS project for Lancashire	Annually 2014 2014	**LWT** **Rivers Trusts** EA Friends of Bowland Other volunteer groups
[1.5] <u>Geodiversity</u> **Support the delivery of UK Geodiversity Action Plan (UKGAP) objectives; to conserve geodiversity and increase awareness and understanding of its importance in shaping the landscape of the AONB.**	[1.5A] Develop information to raise awareness and improve understanding of the geological landscape of the AONB, both on the AONB website and interpretation at appropriate viewpoints, buildings and landscape features	Geodiversity content on AONB website updated and improved, including information on Local Geodiversity Sites in the AONB Investigate opportunities for use of mobile app technologies (e.g. BGS augmented reality geology app) in the AONB. Install on-site interpretation on "geodiversity in the landscape" developed at a Local Geodiversity Site or viewpoint in the AONB	2015 2015 2019	**AONB Unit** GeoLancashire North Yorkshire Geodiversity Partnership Civic societies Local history groups

	{1.5B] Identify potential geodiversity projects involving quarrying and civil engineering industry and local communities	Hold discussions with companies based in or close to the AONB Develop 1 geodiversity project	2015 2019	**GeoLancashire** North Yorkshire Geodiversity Partnership Quarrying companies Civil eng. contractors AONB Unit
	[1.5B] Investigate opportunities to add existing "geo-walks" to AONB suite of promoted routes, where appropriate	Include 3 "geo-walks" within AONB promoted routes	2019	**AONB Unit** GeoLancashire North Yorkshire Geodiversity Partnership
[1.6] <u>Historic Environment</u> **Support the conservation, appropriate restoration and management of the historic environment and wider cultural landscape.**	[1.6A] Work closely with statutory agencies to identify designated heritage assets 'at risk' and develop management plans to facilitate the removal of assets from English Heritage's 'Heritage at Risk Register'	Hold meeting with English Heritage to discuss establishment of 'Heritage at Risk Register' for AONB Complete first designated heritage asset management plan	2014 2016	**English Heritage** AONB Unit Natural England Lancashire County Archaeological Service
	[1.6B] Develop bid to Heritage Lottery Fund 'Landscape Partnership Scheme' for a landscape restoration programme for Pendle Hill area	Complete Stage 1 Bid planning Submit Stage 1 bid If successful: Commence development phase Submit Stage 2 bid	2015 2015 2016 2017	**AONB Unit** Lancashire County Council AONB Partnership Natural England Heritage Lottery Fund Landowners United Utilities RVBC Pendle Council

		Commence LPS delivery	2017-18	Ribble Rivers Trust Local history groups Friends of Bowland Tourism businesses
	[1.6C] Develop community-based projects aiming to conserve and enhance historic features in the landscape and increase access to and understanding of the historic environment and cultural heritage (e.g. community archaeology projects)	Develop 12 community-based local heritage projects	2019	**AONB Unit** Lancashire County Archaeological Service English Heritage Local history groups Archaeological consultants UCLAN
	[1.6D] Develop information to raise awareness and improve understanding of the historic environment of the AONB, both on the AONB website and interpretation at appropriate buildings and landscape features	Develop 'block' for heritage within AONB website Investigate opportunities for further use of mobile app technologies for interpretation of the historic environment Develop and Install on-site interpretation for at least 3 historic features in the landscape	2015 2015 2019	**AONB Unit** English Heritage Lancashire County Archaeological Service Historic Houses Association Local history groups
	[1.6E] Promote the use of the Historic Landscape Characterisation as a tool for understanding the wider historic environment, and to inform land management and development decision-making	Hold 'planning and development' seminar aimed at LPA officers/members to update on latest guidance.	2014	**AONB Unit** Lancashire County Archaeological Service LCC Landscape

	[1.6F] Improve understanding and protection of the form, character and setting of historic settlements and farmsteads, conserving and enhancing their local landscape character and distinctiveness	Re-convene meeting of LPA officers to discuss development of design guidance (buildings, roads and road furniture etc) First design guidance note produced	2015 2016	**AONB Unit** AONB PFG Lancashire County Archaeological Service LCC Landscape LPAs
[1.7] Planning and Development **Influence development planning policy- and decision-making to ensure the statutory purpose of AONB designation, to conserve and enhance the natural beauty of the landscape, is upheld.**	[1.7A] Review development management policy for local planning authorities in the AONB, helping to address LPAs 'duty to co-operate'; and identifying differences and opportunities for greater consistency across policies	Complete review of development management policies for the AONB complete	2014	**AONB PFG** LPAs AONB Unit
	[1.7B] Develop content on AONB website (linking to pre-existing resources wherever possible) to clarify AONB's role and to offer advice and guidance in planning and landscape-related matters	Develop AONB 'planning & development' webpage	2015	**AONB Unit** LPAs Lancashire CPRE RSPB
	[1.7C] Work with Lancashire County Council on revision of LCC supplementary planning guidance on landscape and biodiversity in light of the new National Planning Policy Framework	Meeting held with LCC Landscape and Ecology Respond to consultation on revised planning guidance	2014 2014	**LCC Landscape Unit** **LCC Ecology** RSPB AONB Unit LPAs Lancashire CPRE
	[1.7D] Develop design guidance (e.g. buildings, agricultural buildings, rural roads) based on the AONB Landscape Character Assessment to ensure development conserves and enhances the character of the locality – buildings, agricultural buildings, rural roads	Re-convene meeting of LPA officers to discuss development of design guidance First design guidance note produced	2015 2016	**AONB Unit** LPAs LCC Landscape Unit LCC Ecology RSPB Lancashire CPRE
	[1.7E] Continue to use and promote the AONB renewable	Review and update position	2014	**LCC Landscape Unit**

	energy position statement to offer advice and guidance to planners and developers on appropriate renewable energy development within the AONB	statement, where necessary Hold 'planning and development' seminar aimed at LPA officers/members to update on latest guidance.	 2014	AONB Unit Lancashire CPRE EA RSPB
	[1.7F] Carry out an AONB-wide wind energy landscape capacity study, considering cumulative impacts and including landscapes outside but adjacent to the AONB	Secure funding for study Study published	2015 2016	**LCC Landscape Unit** LPAs
	[1.7G] Investigate potential development of AONB 'Dark Skies' position statement seeking to address light pollution within and surrounding the AONB	Hold meeting for interested organisations to develop position statement If agreed, position statement published	2016 2017	**AONB Unit** Friends of Bowland Landscape Unit Lancashire CPRE
	[1.7H] Continue to work with Electricity North West Ltd. on the delivery of the ENWL-funded 'Undergrounding for Visual Amenity' programme to underground visually intrusive overhead power lines in and around the AONB	Ensure full expenditure of funding allocation for UVA for Ofgem DPCR-05 period (2010 – 2015) Deliver at least 2 UVA projects per year under Ofgem RIIO-ED1 (2015 -2023)	2015 Annually	**ENWL** AONB Unit Landowners BLMF Parish Councils Lancashire CPRE
	[1.7I] Explore opportunities for biodiversity offsetting with local planning authorities (recognising the mechanism as a last resort after options for avoidance and on-site mitigation have been exhausted)	Hold 'planning and development' seminar to discuss opportunities for biodiversity offsetting within the AONB.	2014	**BD Working Group** AONB Unit LPAs Environment Bank

AONB Outcome 2 - Resilient and Sustainable Communities

Vision

Sustainable communities and businesses that are strongly linked to their localities and actively involved in AONB projects and management.

Key Issues

- Changing agricultural policy and payments to farmers creating uncertainty and pressures on livestock farming. Increasing emphasis on food security
- Centralisation of processing facilities has reduced the ability of producers to supply local markets
- Impact on the rural economy of recent recession and subsequent prolonged and slow recovery
- Increasing competition with other countryside destinations and need to retain high percentage of tourism market share
- Lack of public transport and reliance on the private car
- Loss of services in rural settlements due to economies of scale, changes in Government policy and funding to public services, and changing purchasing habits leading to reduction in rural sustainability and negative impacts on those without a car
- Limited access to full time jobs locally
- Lack of affordable housing for people working in the AONB
- Roll-out of 'Rural Broadband' may not reach the most remote areas of the AONB
- Reduced opportunities for rural businesses to capitalise on latest information and communication technology (ICT) due to inconsistent broadband coverage
- Increased risk and frequency of flooding in lowland areas/river valleys where some settlements are situated
- Perceived lack of engagement in the aims and objectives of the AONB designation on the part of local organisations and residents

- Ageing farm workforce with fewer younger farmers to replace those that are retiring. This can lead to: i) fewer people to look after the land; ii) conversion of farm units into small gentrified hamlets; iii) increased commuting into neighbouring towns, often resulting in more traffic on minor roads
- Ageing population in general, leading to loss of young families and young people living in the AONB, this in turn can result in a loss of skills and engagement

AONB 'Ways of Working'

Land Management

- AONB partners, land owners, managers and farmers follow the 'guiding principles' on land management established in the statement 'Towards Shared Land Management Principles for the Forest of Bowland AONB' produced jointly by the AONB Unit and Bowland Land Managers Forum
- Work closely with AONB land owners, managers and farmers to ensure effective communications with the AONB and government agencies relating to land management decisions affecting the area
- AONB partners and government agencies to engage, consult and respond to the reasonable concerns of land owners, managers and farmers prior to making decisions which affect their interests, rights and responsibilities

Local Economy and Rural Services

- Support the retention of services (e.g. health centres, post offices, schools, shops, public transport, public toilets and car parking) within local communities of the AONB and resist developments which would result in their loss
- Support affordable housing and workspace initiatives within the area, where development meets local housing, employment and business need and will also conserve and enhance the AONB landscape
- Support landscape-sensitive delivery of super-fast broadband and mobile telecommunication networks throughout the AONB
- Review and remain up-to-date with current rural growth and development funding mechanisms, particularly government and European Union funding programmes.
- Promote local businesses, products and services

Community Engagement

- Work with local communities throughout the AONB
- Ensure local communities are fully informed, consulted and involved with regard to AONB planning and activities, wherever possible seeking to include a diverse range of people (e.g. age, ethnicity, ability and interests)
- Support the development and build capacity of voluntary groups, in order that they can play an increased role in implementation of the AONB Management Plan
- Support communities in identifying and celebrating their local distinctiveness
- Incorporate volunteer support into the delivery of AONB projects, where appropriate
- Continue to support Champion Bowland (previously Bowland Tourism Environment Fund) as a charitable fundraising organisation, which aims to conserve and enhance the natural beauty of the AONB landscape

Sustainable Tourism

- Provide one-to-one support and advice on sustainable tourism for businesses in and around the AONB
- Actively recruit and support sustainable tourism partners, Bowland Experience and green tourism accredited businesses

RESILIENT AND SUSTAINABLE COMMUNITIES				
OBJECTIVES	**ACTIONS**	**TARGETS**	**TIMESCALE**	**KEY PARTNER(S)**
[2.1] Farming and Land Management **Promote and implement sustainable land management and farming practices that conserve and enhance the natural beauty of the landscape.**	[2.1A] Provide appropriate support and guidance on landscape, biodiversity and access for farmers and land managers who deliver agri-environment scheme agreements	Advice provided for at least 6 agri-environment scheme agreements per year	Annually	**LCC E&C Projects** Natural England RSPB AONB Unit LCC Landscape Unit
	[2.1B] Continue to support the development of the 'Bowland Land Managers Forum' to represent the land management sector locally, regionally and nationally (e.g. influencing the development and implementation of local rural development programmes in Lancashire and North Yorkshire)	Hold 4 meetings per year (min.) Forum members nominated for proposed RDPE/LEADER Local Action Group(s) covering the AONB	Annually 2015	**AONB Unit** NE Landowners/farmers Local Enterprise Partnerships RDPE/LEADER LAGs
	[2.1C] Disseminate information on the work of the Bowland Land Managers Forum to wider audience within the land management sector	Hold biennial meeting for wider land management sector partners	Biennially	**BLMF** AONB Unit
	[2.1D] Develop collaborative land management projects involving farmers and major landowners in the AONB (e.g. restoration of black grouse/grey partridge, pilot predator control areas for ground-nesting birds, woodfuel, training & apprenticeships)	Develop at least 2 collaborative land management projects	2019	**BLMF** AONB Unit Landowners/farmers RSPB LCC E&C Projects
	[2.1E] Carry out monitoring and recording of environmental benefits achieved through agri-environment schemes to inform other farmers and non farmers on the benefits from upland hill farming	Develop monitoring programme in liaison with Bowland Land Managers Forum Establish baseline conditions	 2015	**NE** BD Working Group BLMF LERN RSPB

		Biennial survey work carried out	2017 & 2019	
	[2.1F] Work with Natural England and Defra to develop landscape-specific management options and agreements for the new Environmental Land Management Scheme (NELMS)	Commence discussions amongst key partners If appropriate, proposal developed for Bowland landscape-specific management options and agreements under NELMS.	2014 2014-2015	**NE** BLMF EA Defra AONB Unit LCC E&C Projects
	[2.1G] Develop funding bids to support training and apprenticeships programme in countryside management and traditional rural skills	Forum meeting held to discuss potential for training and apprenticeships programme Development of funding bid to rural development/growth funding programmes, where available and appropriate	2015 2016	**BLMF** Myerscough College Craven College YDMT Young Farmers
	[2.1H] Support the development of local woodfuel economy, linked to improved woodland management and focusing on smaller and less-accessible sites	Commission research to collate evidence of existing and past traditional woodland management in the AONB Hold woodland management seminar/field visit Secure funding for at least 1 pilot 'woodfuel' project in the AONB	2014 2014 2016	**LCC E&C Projects** **LCC Countryside** Lancashire Woodland Project Cumbria Woodlands Arnside and Silverdale AONB United Utilities LWT Woodland owners/managers Existing woodfuel

				suppliers
	[2.1I] Broker discussions with Natural England on future direction of moorland management in Bowland, particularly in relation to grazing and burning/cutting regimes and bracken control	Hold AONB 'Upland Management ' seminar	2015	**BLMF** NE BD Working Group Moorland Association Landowners/farmers
	[2.1J] Support Lancashire Fire Operations Group (FOG) to encourage good practice in upland heather burning by providing training opportunities for land managers in the AONB	Lancashire FOG contributes to AONB 'Upland Management ' seminar	2015	**Lancashire FOG** NE Moorland Association Landowners/ farmers
[2.2] Local Economy and Rural Services **Promote and support rural services and the socio-economic development of the area, particularly where such activity helps to conserve and enhance the AONB's natural beauty.**	[2.2A] Play an active role in Local Enterprise Partnerships' developing rural agendas e.g. rural growth and development programmes	Invite LEP Chair and Board Members to visit AONB BEx/Sustainable Tourism Forum members nominated for proposed RDPE/LEADER Local Action Group(s) covering the AONB	2014 2015	**AONB Unit** BEx BLMF
	[2.2B] Maintain and update existing databases of information on local producers, tourism businesses, artists and craftspeople	Database checked and updated	Annually	**AONB Unit**
	[2.2C] Continue to support Bowland Experience Ltd	Provide business-to-business support, advice, training and networking for 100 tourism operators and businesses in and around the AONB Develop and maintain 5 'good	2019	**BEx** AONB Unit

		practice' web resources for businesses via BEx website	2019	
	[2.2D] To develop and manage a programme for 'Sustainable Tourism Partners' in the AONB	Establish criteria for 'Sustainable Tourism Partners' Develop a mentoring system to be offered by 'sustainable tourism partners' to support new businesses.	2014 2016	**Sustainable Tourism Forum** AONB Unit BEx
	[2.2E] Continue to recruit businesses to GTBS or other recognised green accreditation schemes	Maintain annual membership of 30 businesses for green accreditation schemes in and around the AONB Organise one annual event to showcase green accredited businesses (e.g. Green Tourism Week)	Annually Annually	**AONB Unit** Sustainable Tourism Forum
	[2.2F] Develop an effective way of collecting and disseminating tourism related data for the AONB	Collate and analyse tourism data annually. Develop visitor profiles Disseminate information to partners annually	2019	**AONB Unit** Marketing Lancashire Welcome to Yorkshire Local Authority Tourism Officers
	[2.2G] Continue to collate and disseminate performance data from businesses within the BEx network	Collate, analyse and disseminate business performance data annually	Annually	**AONB Unit**

	[2.2H] Review membership of European Charter for Sustainable Tourism in Protected Areas (EUROPARC)	Decide on renewal of the Charter. If necessary prepare and submit Charter application	2014	**Sustainable Tourism Forum** AONB Unit
	[2.2I] Continue to coordinate and support the Sustainable Tourism Forum	Hold Annual forum meeting for tourism partners and businesses	Annually	**AONB Unit**
[2.3] Community Engagement **Work closely with local communities and businesses to help them to be actively involved in AONB projects and management.**	[2.3A] Raise the profile of services and support offered by the AONB Partnership amongst community groups, parish councils and local businesses	Develop and deliver a series of 'Know your AONB' events for community groups, parish councils and businesses	By 2017	**AONB Unit** AONB Partnership EA NE
	[2.3B] Support communities in undertaking projects and activities which help to conserve, enhance, celebrate and interpret the local environment within the AONB landscape	Support at least 6 community projects per year Support 2 'Networks for Nectar' community engagement projects	Annually 2015	**AONB Unit** LCC E&C Projects Friends of Bowland Champion Bowland YDMT
	[2.3C] Assist communities to identify sources of funding to resource the delivery of community projects and activities	Assist at least 4 community groups per year	Annually	**AONB Unit** LCC E&C Projects
	[2.3D] Raise the profile of community projects and activities where appropriate, through all AONB Partnership communications channels	Include information on at least 6 community projects in AONB e-bulletins per year	Annually	**AONB Unit** AONB PFG
	[2.3E] Continue to support local parish lengthsman schemes within the AONB to assist in the conservation and enhancement of AONB communities	Continue support for up to 6 parish lengthsman schemes Review support for parish	2014 – 2016 Annually	**LCC E&C Projects** AONB Unit Parish Councils

		lengthsman schemes		
	[2.3F] Establish new funding sources for the local parish lengthsman schemes to supplement AONB support	Develop a fundraising plan for AONB parish lengthsman schemes in consultation with Parish Councils	2014	**LCC E&C Projects** AONB Unit Parish Councils
	[2.3G] Support the development of ' Friends of Bowland' group as a focus for volunteering activity with the AONB	Attend meetings, where appropriate Hold 3 joint training activities/events per year	Annually Annually	**AONB Unit** Friends of Bowland LCC E&C Projects AONB PFG LWT
	[2.3H] Continue to support the involvement of volunteer rangers in managing recreational facilities in the AONB (e.g. Bowland Visitor Centre at Beacon Fell)	Hold 3 volunteer training events/courses for volunteer rangers per year	Annually	**LCC Ranger Service** Wyre Coast and Countryside Service
	[2.3I] Manage the AONB Sustainable Development Fund	Support at least 4 SDF projects per year Review working arrangements and annual budget	Annually 2014	**AONB Unit** Champion Bowland
	[2.3J] Continue to support and develop further the opportunities for visitor giving and fundraising through Champion Bowland to raise awareness of the AONB and its special qualities	Develop and agree visitor-giving schemes Identify 10 individual businesses to link with local projects to conserve and enhance the AONB.	2014 2 businesses per year	**Champion Bowland** AONB Unit Tourism businesses

		Provide annual update on the funds allocated.	Annually	
	[2.3K] Raise awareness of the AONB's 50th Anniversary (2014) by encouraging partners, communities and businesses to celebrate and link with the anniversary year	Organise fund-raising events and activities to raise £5,000 for Champion Bowland Involve tourism businesses and communities in delivery of at least 3 anniversary events/activities	2014 2014	**Champion Bowland** AONB Partnership BEx Tourism Businesses
[2.4] Sustainable Tourism **Develop, co-ordinate and effectively promote sustainable tourism activity within the AONB**	[2.4A] Develop resources and a series of training sessions to enable businesses to develop bespoke visitor experiences from their door e.g. rainy day guides, car free itineraries, access opportunities	Support 40 businesses through workshops and on-to-one sessions	2019	**BEx** AONB Unit Tourism businesses Marketing Lancashire Welcome to Yorkshire Local authority tourism partners
	[2.4B] Investigate new ways for tourism businesses to network that complement face-to-face networking opportunities	Hold meeting with tourism businesses to discuss improved networking Implement new networking practices agreed Review networking arrangements and make changes where necessary	2014 2014 Annually	**BEx** AONB Unit
	[2.4C] Continue to offer and further develop the Sense of Place training and familiarisation visits for businesses	Update the digital toolkit	2014	**AONB Unit** BEx

		Deliver 5 training courses and familiarisation Support 25 businesses	1 per year 2019	
	[2.4D] Continue to encourage local retailers, pubs and restaurants to source, stock and utilise and promote local produce	Recruit and support 15 new BEx members from food-related businesses	2019	**BEx** AONB Unit
	[2.4E] Encourage and support local authorities to develop and promote 'Top 10' AONB visitor experiences which are accessible from gateway towns and cities	'AONB Top 10' promoted by at least 2 local authorities	2017	**AONB Unit** Marketing Lancashire Welcome to Yorkshire Local authority tourism partners
	[2.4F] Identify and promote opportunities based on seasonal activities to help encourage year-round (or 'off-peak') tourism - e.g. seasonal routes/trails, seasonal produce, bird-watching, fishing, geo-tourism and dark skies)	Workshop held to highlight the opportunities for year-round tourism.	Annually	**AONB Unit** BEx Tourism businesses Marketing Lancashire Welcome to Yorkshire Local authority tourism partners
	[2.4G] Continue to support the development of business clusters in the provision and marketing of 'tourism packages' e.g. Bowland wildlife website and Gisburn Forest Bike trails	Develop 2 business cluster projects	2019	**AONB Unit** BEx Marketing Lancashire Welcome to Yorkshire Local authority tourism partners
	[2.4H] Continue to develop, promote and review downloadable routes for the website, including access for all, walking, cycling	Develop up to 6 news routes	Annually	**AONB Unit**

	& horse riding; encouraging use of public transport wherever possible	annually.		LCC E&C Projects LCC Ranger Service Wyre Coast and Countryside Service
	[2.4I] Support opportunities to develop and promote 'Gisburn Forest and Stocks' as a destination for cycling, walking and riding	New branding and visitor information rolled out for Gisburn Forest and Stocks Investigate potential to divert bus route to link with Gisburn Forest Hub	2014 onwards 2014	**Forestry Commission** **United Utilities** AONB Unit Marketing Lancashire Welcome to Yorkshire Ribble Valley BC Craven DC
	[2.4J] Investigate the role of mobile technologies to provide an enhanced visitor experience, recognising the limitations of the telecommunications network in the AONB	Produce a mobile-friendly version of the AONB website Develop at least 3 mobile apps for walking, cycling and local produce/crafts	2015 2019	**AONB Unit** Local businesses, artists & crafts people Tourism businesses Marketing Lancashire Welcome to Yorkshire Local authority tourism partners
	[2.4K] Continue to work with tourism operators and businesses to develop car-free activities and walks from the businesses e.g. business-specific downloadable route maps	Develop 4 business-specific downloadable route maps per year	Annually	**AONB Unit** BEx Tourism businesses

AONB Outcome 3 - A Strong Connection between People and the Landscape

Vision

Wide-ranging opportunities for enjoyment and increased understanding provided within the AONB; to enable a diverse range of people to enjoy and keep special this outstanding landscape.

Key Issues

- Pressure on key destinations resulting in erosion and potential damage to archaeological sites, loss of habitat, tranquillity and diminished visitor experience
- Management and maintenance of Public Rights of Way and AONB 'Promoted Routes'
- Existing bridleway network fragmented
- Use of rights of way both legally and illegally by motorised vehicles causes conflict with other recreational users and local communities
- Rising visitor numbers is likely to involve increase in use of private cars to popular visitor sites, thus detracting from the visitor experience
- Increased incidence of inconsiderate, road-side parking, particularly at and adjacent to popular visitor sites
- Localised problems of litter and fly-tipping
- Increased risk and frequency of moorland fires in upland areas
- Low public awareness and understanding of the AONB designation (in comparison to National Parks, for example)
- Increased demand for organised recreational events within the AONB (including through SSSI land) which have the potential to damage habitats
- Balancing the demands for- and costs of web-based vs. printed publicity and using emerging technology/social media effectively
- Consideration of charging for Festival Bowland events

AONB 'Ways of Working'

Countryside Access

- Promote countryside access opportunities for all, seeking to meet the needs of all users wherever possible
- Consider the landscape impacts of access improvements, particularly on moorland and fells
- Consider opportunities to facilitate discussions with landowners about dedication of land for public access, where appropriate

Public Rights of Way and Access Land

- Promote and encourage the use of high quality materials for PRoW 'furniture' that are in keeping with the local landscape (e.g. wooden footpath signs), wherever possible
- Continue to work closely with Natural England, Local Access Forums and landowners in relation to management of access land, particularly to assist with a review of Access Land maps due to take place during the life of the Management Plan

Visitor Management

- Promote attractions away from 'honeypot' sites in order to attract visitors to less visited parts of the AONB
- Continue to work closely with local authority countryside and environmental services to help maintain effective management of countryside sites (e.g. country parks, picnic sites, car parks and lay-bys) in the AONB
- Encourage sustainable development and management of new visitor destinations in the AONB (e.g. Stephen Park in Gisburn Forest)

Information and Publicity

- Analyse web data and monitor monthly download figures to aid future development of the AONB website
- Continue to produce AONB printed publicity, where necessary and as resources will allow
- Continue to work with and support tourism businesses to promote the area's recreational, wildlife and cultural heritage offer in a sustainable way
- Produce regular website updates including news, 'walk of the month', project developments and events
- Make regular use of social media to communicate with AONB partners, visitors and communities

Branding and Identity

- Encourage businesses and partners to promote AONB publications and leaflets and contribute events to website listings
- Collaborate with Marketing Lancashire, Welcome to Yorkshire and local authority tourism officers to promote the AONB as a sustainable tourism destination
- Utilise AONB branding and 'Sense of Place' themes on website, print, communications, mobile apps and social media

Audience Development

- Seek to remove barriers to participation when developing AONB projects and activities
- Seek to make participation of new audiences sustainable in the long term wherever possible, particularly those who might be considered "hard to reach"

A STRONG CONNECTION BETWEEN PEOPLE AND THE LANDSCAPE				
OBJECTIVES	**ACTIONS**	**TARGETS**	**TIMESCALE**	**KEY PARTNER(S)**
[3.1] Countryside Access **Develop and promote 'access for all' routes (e.g. bridleways, tramper trails, roadside footpaths), seeking to meet the needs of all users wherever possible.**	[3.1A] Review and update the current network of strategic and AONB 'Promoted Routes' (for walking, cycling, horse-riding, trampers etc.) at least annually, giving consideration to new or improved routes and removal of routes under pressure	Review completed and acted upon at least once per year	Annually	**LCC E&C Projects** **AONB Unit** LCC PRoW NYCC PRoW
	[3.1B] Continue to undertake PRoW/access improvement surveys, identifying and acting upon opportunities for improvement	Survey at least 10% of PRoW within AONB per year	Annually	**LCC PRoW** **NYCC PRoW** AONB Unit LCC E&C Projects United Utilities
	[3.1C] Seek to install least restrictive access furniture and to provide appropriate signage on strategic and AONB 'Promoted Routes'	'Access for all' provided on at least one route per year Hold meetings with PRoW teams to raise awareness of importance of appropriate signage in the AONB (e.g. materials) Develop a monitoring system with PRoW teams to flag reports relating to signage renewal in the AONB	Annually 2015 2015	**LCC E&C Projects** **AONB Unit** LCC PRoW NYCC PRoW United Utilities Lancashire Health and Wellbeing Board
	[3.1D] Continue to identify and facilitate the development of strategic routes linking neighbouring urban areas and other visitor destinations to the AONB, with priority given to:	Seek inclusion of priority strategic routes in review of LCC RoWIP	2014	**LCC E&C Projects** LCC PRoW NYCC PRoW

	- extension Lune Valley multi-use route - extensions to North Lancashire bridleway - Settle (Pennine Bridleway) to Gisburn Forest link	Continue landowner negotiations and development of route for S to GF link	2014	YDMT North Yorkshire and York LNP Bridleway groups Pennine Mountain Bike Association Gisburn Forest Trail Builders Lancashire Health and Wellbeing Board
	[3.1E] Identify external funding sources to support the development of new strategic routes and submit bids, where appropriate	Strategic routes fundraising plan developed	2014	**LCC E&C Projects** LCC PRoW LCC Countryside AONB Unit YDMT Lancashire LAF British Horse Society
[3.2] <u>Public Rights of Way and Access Land</u> **Support the establishment and maintenance of well-managed Public Rights of Way (PRoW) and Access Land, which meets the needs of users, conforms to national standards and are consistent with the conservation and enhancement of the AONB's natural beauty.**	[3.2A] Support the review and implementation of the Rights of Way Improvement Plans (both Lancashire and North Yorkshire), where funding allows	Contribute to planned review of the RoWIP for Lancashire At least one meeting per year with PRoW teams re: implementation of RoWIPs in the AONB	2014 Annually	**LCC PRoW** **NYCC PRoW** AONB Unit LCC E&C Projects
	[3.2B] Support the management of, and access to 'Access Land' in the AONB	Establish 'Access Land' as a standing item for Bowland Land Managers Forum Annual report to Local Access	Annually Annually	**LCC Countryside** Natural England BLMF LAFs LCC E&C Projects

		Forums on 'Access Land' issues		
	[3.2C] Maintain well-managed PRoW, making necessary repairs to strategic routes or AONB 'Promoted Routes', where funding permits	At least 3 strategic or AONB promoted routes maintained per year	Annually	**LCC & NYCC PRoW** LCC E&C Projects
	[3.2D] Continue the development of involving local volunteers to help maintain and enhance the PRoW network, particularly on AONB 'promoted routes'	Recruit 2 new 'Promoted Routes' monitoring volunteers annually Organise an annual event to support and provide feedback to 'Promoted Routes' monitoring volunteers	Annually Annually	**AONB Unit** LCC E&C Projects Friends of Bowland LCC Ranger Service Wyre Coast and Countryside Service
	[3.2E] Support the Parish Lengthsman (or similar) Schemes to undertake maintenance and improvement of PRoW network	At least 18 parishes supported per year within the AONB	Annually	**LCC PRoW** LCC E&C Projects
	[3.2F] Play an active role in the Lancashire Fire Operations Group in developing and maintaining fire plans for moorland areas and raising awareness of the threat posed by moorland wildfires in the AONB	Hold at least two meetings per year Hold 2 Lancashire FOG exercises/events in AONB	Annually 2019	**Lancashire Fire Service** LCC Landowners/ land managers Moorland Association
[3.3] <u>Visitor Management</u> Co-ordinate and support the sustainable management of popular visitor (or 'honeypot') sites.	[3.3A] Continue to facilitate meetings between relevant partners regarding access and visitor management for popular visitor sites (e.g. Upper Hodder Management Group, Pendle Hill Advisory Group)	At least 1 meeting per year of Management Groups	Annually	**AONB Unit** Local authorities Forestry Commission United Utilities Landowners Parish Councils LCC E&C Projects

	[3.3B] Develop and share best practice amongst countryside site managers and management groups (e.g. Friends groups) to consider development of visitor facilities, minimising impact on landscape and biodiversity and refreshing signage and interpretation with AONB 'messages', wherever possible	Investigate demand for establishing AONB Countryside Site Managers group Establish a list of AONB 'honeypot' sites including details of site management arrangements	2014 2014	**Wyre Coast and Countryside Service** LCC E&C Projects Friends groups Forestry Commission United Utilities LCC Countryside Service Countryside Site Managers
	[3.3C] Investigate the potential to link 'honeypot' site projects with 'visitor-giving' schemes	Countryside Site Managers involved in development of Champion Bowland visitor-giving schemes	2014	**Countryside Site Managers** AONB Unit BEx Champion Bowland LCC E&C Projects
[3.4] <u>Information and Publicity</u> **Provide high quality and inclusive information (including website, print, on-site interpretation, social and digital media) to raise awareness of the AONB designation and the special qualities of the AONB landscape.**	[3.4A] Continue to develop high quality content and resources on the AONB website as both a visitor and partnership resource, providing a 'hub' for up-to-date information	Refresh of AONB website Further develop website content to promote the AONB to a diverse range of people (e.g. families, young people).	2015 2015	**AONB Unit**
	[3.4B] Review and rationalise leaflet production and distribution, where resources allow, re-print existing and produce new leaflets	Review AONB print production and distribution at least once per year Re-print or produce 2 publications per year, where	Annually Annually	**AONB Unit**

		resources allow		
	[3.4C] Review AONB Discovery Guide and re-issue if funding permits	Discovery Guide published Review guide and re-issue	2014 2015	**AONB Unit**
	[3.4D] Promote the Countryside Code to visitors with clear messages communicated through all AONB and partner communications channels	Review and develop content on Countryside Code on AONB website, social media, print and on-site interpretation, wherever possible	Annually	**AONB Unit** AONB Partners Countryside Site Managers Countryside Services TICs Marketing Lancashire Welcome to Yorkshire Local authority tourism partners
	[3.4E] Engage with public transport operating companies to develop ticketing promotions and publicity e.g. rail links to the AONB (Manchester Victoria – Clitheroe and Leeds – Morecambe lines)	Meeting held with Northern Rail and/or relevant community rail partnerships	2015	**AONB Unit** Northern Rail BEx Community Rail Partnerships
[3.5] <u>Branding and Identity</u> Maintain a distinctive and appropriate brand identity for the AONB and ensure consistency in how the special qualities of the AONB are portrayed, helping to promote the area as a sustainable	[3.5A] Investigate options for a refresh of the AONB brand, which maintains a strong identity; and implement if resources allow	Refresh of AONB brand	2014	**AONB Unit** AONB PFG
	[3.5B] Review and update AONB branding guidelines, in line with any 'refresh' of the AONB branding	Branding guidelines updated	2014	**AONB Unit**
	[3.5C] Continue to develop and maintain a diverse library of	Photography commission	2014	**AONB Unit**

tourism destination.	AONB images	Review of AONB image library	Annually	
	[3.5D] Continue to re-instate, replace or renovate boundary signs on key routes into the AONB, where necessary and funding permits	Re-instate, replace or renovate 5 boundary signs	2019	**AONB Unit** LCC E&C Projects
	[3.5E] Ensure that AONB gateway sites (e.g. country parks, market towns, nature reserves) and tourism businesses open to the public continue to carry AONB literature	Review and maintain leaflet distribution service	Annually	**AONB Unit** Marketing Lancashire Welcome to Yorkshire Local authority tourism partners
	[3.5F] Develop and maintain relationships with specialist media in promoting the AONB as sustainable tourism destination	Update AONB green travel guide Investigate scope to develop destination guide through 'Our Land', a Protected Landscapes tourism project	Annually 2014	**AONB Unit** Marketing Lancashire Welcome to Yorkshire Local authority tourism partners LCC Sustainable Travel
	[3.5G] Raise awareness of public transport amongst tourism operators and businesses and tourist information staff, via targeted training and/or familiarisation visits	Hold 1 'tourism & public transport' training/familiarisation event per year	Annually	**AONB Unit** Sustainable Tourism Forum BEx TIC Staff
[3.6] <u>Audience Development</u> **Help a diverse range of people connect with the AONB landscape through a co-ordinated programme of**	[3.6A] Support and promote an annual Festival Bowland programme of partner-led events for both visitors and local communities	Produce a 'Festival Bowland' events calendar	Annually	**AONB Unit** AONB PFG Friends of Bowland Volunteers
	[3.6B] Support and promote externally-organised events that	Monthly updates for each year	Annually	**AONB Unit**

events and activities	help raise awareness of AONB objectives			
	[3.6C] Develop an outreach project (particularly working in neighbouring urban areas) to encourage new audiences that traditionally do not know about or visit the AONB to engage with the Bowland landscape through events and activities	Review pilot 'Bowland Outreach' Project Funding secured for continuation of 'Bowland Outreach' Project, if agreed	2014 2015	**AONB Unit** YDMT LCC E&C Projects Lancashire Health and Wellbeing Board
	[3.6D] Promote (and support where funding permits) public transport links, particularly with neighbouring urban areas, such as. Lancaster, Morecambe, Blackpool, Fleetwood and the East Lancashire towns	Maintain public transport information in AONB publicity	Annually	**AONB Unit** LCC Sustainable Transport Dales and Bowland CIC
	[3.6E] Support the development of arts and culture based projects and events, using local artists and craftspeople wherever possible, to raise awareness and promote understanding of the Bowland landscape	Support 5 arts and culture based projects	2019	AONB Unit **LCC Arts Development** Local artists & craftspeople BEx
	[3.6F] Maintain and update information on 'open farms', particularly those providing educational access through Environmental Stewardship Schemes	Review and update at least once per year Review Farm Visit Transport Fund	Annually 2014	**AONB Unit** Farms with educational access Champion Bowland
	[3.6H] Develop education resources and activities for teachers and lecturers at all levels (primary, secondary and tertiary)	Review existing resources and produce at least one new resource per year to meet identified demand	Annually	**AONB Unit**

		Support at least one educational visit per year	Annually	

AONB Outcome 4 - Working in Partnership

Vision

A well-organised and inclusive AONB Partnership, with partners taking active responsibility for the delivery and on going maintenance of high quality services.

Key Issues

- Long-term uncertainty of Government (Defra) funding and significant budgetary pressures on local government funding to support AONB Partnership
- Impacts of reductions in funding impacting on AONB services, projects, activities
- Reductions and restructuring of local authority and government agency services (e.g. Local Authority Public Rights of Way, Environment Agency and Natural England)
- The continual challenge of coordinating a large, partnership organisation across numerous land ownership and administrative boundaries, and the impact of these boundaries on AONB funding, decision-making and brand identity
- National initiatives and obligations such as the European Landscape Convention, Local Enterprise Partnerships, RDPE/LEADER Local Action Groups, Local Nature Partnerships, Nature Improvement Areas and EU Water Framework Directive which require flexible partnership working
- Increasing importance of working with local communities (i.e. “from the bottom up”) to develop visions for future landscapes, as required by the European Landscape Convention

AONB 'Ways of Working'

<u>Delivery of the Management Plan</u>

- Management Plan delivery done by encouragement through effective partnership working and not enforcement

- Continue to work closely with wider strategic partner organisations and emerging initiatives (e.g. Local Enterprise Partnerships, LEADER Local Groups, Local Nature Partnerships and River Catchment Partnerships) to help secure support and resources for delivery the AONB Management Plan
- Support and maintain coordinated delivery of countryside services across the AONB

Funding

- Work with National Association for AONBs (NAAONB) and other Protected Landscapes to help secure medium to long-term funding for AONB management and project delivery, including lobbying Defra for continuation of flexible AONB funding
- Prioritise future funding bids according to agreed criteria including: importance of projects, staff time available, requirements for match funds, likelihood of success, and amounts to be raised
- Consider the most appropriate 'applicant' and funding body for each proposed project (e.g. AONB Partnership-only or jointly with other partner organisations)

Monitoring and Evaluation

- Encourage and facilitate simple, but effective monitoring and reporting by all AONB partners on the delivery of the AONB Management Plan
- Work closely with national, regional and local partners to develop and share monitoring and evaluation data, seeking to improve the overall evidence base for the AONB

Communications

- Source and promote newsworthy stories that raise awareness of AONB partnership projects and activity
- Continue to work closely with AONB partners' corporate communications to maximise resources for the implementation of the AONB Communications Strategy
- Undertake occasional exchange visits to other UK Protected Landscapes and EUROPARC 'Protected Areas' where appropriate.

WORKING IN PARTNERSHIP				
OBJECTIVES	**ACTIONS**	**TARGETS**	**TIMESCALE**	**KEY PARTNER(S)**
[4.1] Delivery of the AONB Management Plan **Maximise the involvement and commitment of all partners in delivering the objectives of the AONB Management Plan**	[4.1A] Regularly review the governance structure, membership and support for the AONB Partnership; to be as effective, accountable, and inclusive and balanced as possible	AONB Partnership governance structure and membership reviewed and updated	Biennially from 2014	**AONB Unit** AONB PFG AONB JAC
	[4.1B] Develop an induction pack for new members of the AONB Joint Advisory Committee	Induction pack developed	2014	**AONB Unit**
	[4.1C] Appoint 'AONB Champions' from the JAC membership to represent the Partnership on each of the AONB Management Plan outcomes	Proposal considered by JAC 'AONB Champions' appointed from JAC membership	2014 2014	**AONB JAC** AONB Unit
	[4.1D] Communicate regularly with county and district council committees and members to ensure all are well-informed and supportive of AONB Partnership objectives	Hold at least 2 JAC meetings Hold at least 4 Partnership Funders Group meetings per year Hold at least one meeting per year with local authority partner lead officer and member	Annually Annually Annually	**AONB Unit** AONB JAC AONB Champions Local authority members and lead officers
	[4.1E] Review and maintain the AONB Unit Business Plan, involving team members and AONB partners	Complete AONB Unit Business Plan review	Annually	**AONB Unit**
	[4.1F] Continue to offer the AONB Unit office as a work-base and meeting space for AONB partners and community groups	Maintain AONB Office in the area Carry out annual review of accommodation costs within	Annually Annually	**AONB Unit** AONB Partnership

		context of overall AONB budget		
	[4.1G] Review and update the AONB Unit Environmental Policy to maximise the sustainability of AONB management and operations	Review Environmental Policy Maintain information on AONB Unit's environmental performance (e.g. carbon footprint)	Biennially Annually	**AONB Unit**
[4.2] <u>Funding</u> **Secure and maintain long-term funding to support the work of the AONB Partnership**	[4.2A] Implement recommendations of the AONB Fundraising Strategy (2013) to manage Partnership budgets effectively and help attract external funding from a range of sources into the future	Implement strategy recommendations	2019	**AONB Unit** AONB PFG BEx Champion Bowland
	[4.2B] Develop contingency plans with host authority, Lancashire County Council for continued reductions in AONB Partnership funding	Complete contingency planning and present to AONB JAC	2014	**AONB Unit** AONB PFG LCC
	[4.2C] Consider charging developers for pre-application advice (as many LPAs do) for larger, more significant development proposals	Investigate other AONB and LPA charging policies If appropriate, present proposal for charging policy to JAC for decision	2014 2014	**AONB Unit** NAAONB LPAs
	[4.2D] Engage with Local Enterprise Partnerships and RDPE/LEADER Local Action Groups (LAGs), aiming to secure government and EU funding and to help ensure integrated rural development project delivery within the AONB	Engage as key partner in the development of LAGs and Local Development Strategies for RDPE/LEADER affecting the AONB Nominate representation from	2014 2015	**AONB Unit** BLMF BEx

		within the AONB on LAGs		
	[4.2E] Continue to work closely with Champion Bowland to encourage donations/visitor-giving initiatives and applications to the funds managed by the charitable company	Engage in Champion Bowland review of company funds management (e.g. Farm Visit Transport, Small Projects and Sustainable Development Funds) Engage in development of visitor-giving schemes	2014 2014	**AONB Unit** Champion Bowland
[4.3] Monitoring and Evaluation **Effectively monitor and report on the delivery of the AONB Management Plan**	[4.3A] Produce a 'State of the AONB' report to monitor overall condition of the AONB landscape and its communities, providing an evidence base for future project and programme development and funding bids	Complete scoping work on development of report If agreed: Commission report	2014 2015, 2017 & 2019	**AONB Unit** AONB Partnership Funders Group
	[4.3B] Develop the on-line 'Interactive Management Plan' (which enables partners and working groups to report on progress of individual projects and actions) to produce useful and user-friendly monitoring reports for the AONB Unit and partner organisations	Complete updated version of on-line 'Interactive Management Plan'	2015	**AONB Unit** AONB Partnership Ribble Rivers Trust
	[4.3C] Work with partners to ensure they use Biodiversity Action Reporting System 2 (BARS2) to report back to Natural England and Defra on BD2020 delivery within the AONB	Provide reporting to BARS2 at least twice per year	Annually	**BD Working Group** AONB Partnership AONB Unit NE Defra Terrestrial Biodiversity Group

				LWT LERN
	[4.3D] Work with partners to ensure they use UKGAP monitoring to report back on delivery of geodiversity actions within the AONB	Provide reporting to UKGAP annually	Annually	**GeoLancashire** AONB Unit NE
	[4.3E] Regularly review reporting systems (e.g. e-bulletin, JAC reports, local authority reports, Defra monitoring) for the AONB Unit and Partnership to minimise repetitious reporting, wherever possible	Review of Unit and Partnership reporting systems at least once per year	Annually	**AONB Unit**
	[4.3F] Carry out regular AONB visitor surveys and tourism business monitoring to maintain an overall picture of the tourism sector within the AONB	Carry out visitor survey Tourism business monitoring	Biennially Annually	**AONB Unit** Local authority tourism officers Tourism businesses
[4.4] Partnership Communication **Establish and maintain effective communication channels with all partners to publicise successes and achievements of the AONB Partnership and share best practice**	[4.4A] Review, update and implement AONB Communication Strategy	Complete strategy review	2015	**AONB Unit**
	[4.4B] Develop and implement a co-ordinated approach to public relations, as part of refreshed AONB Communication Strategy	Produce at least 10 AONB press releases per year Produce and disseminate AONB e-bulletins and tourism business bulletins at least 3 times per year.	Annually Annually	**AONB Unit**
	[4.4C] Develop an AONB Partnership Advocacy Plan, particularly focusing on improving and widening communications with AONB funding partners	Develop advocacy plan	2015	**AONB Unit** AONB Partnership
	[4.4D] Produce a clear and concise AONB Annual Report	Publish Annual Report	Annually	**AONB Unit**

	[4.4E] Collaborate and share 'best practice' with other AONBs and National Parks, through the NAAONB, Northern AONBs Group and established networks such as EUROPARC	AONB represented at NAAONB Annual Conference and AGM, wherever possible. Attend various seminars and meeting, as appropriate Investigate opportunities for collaborative projects and shared services with neighbouring Protected Landscape	Annually Annually 2014	**AONB Unit** NAAONB Northern AONBs Group EUROPARC Federation EUROPARC Atlantic Isles
	[4.4F] Organise a biennial AONB conference for partners to celebrate successes and help plan for the future	Hold biennial AONB Conference	2015 onwards	AONB Partnership **AONB Unit**

APPENDIX 1 - LITERATURE REVIEW

Directive, plan, strategy
INTERNATIONAL
Agenda 21 (1992)
Convention on Biodiversity (1993)
Kyoto Protocol to the United Nations Framework Convention on Climate Change (Adopted December 1997)
Copenhagen Accord United Nations Climate Change Conference 2009
Convention on Biodiversity, Aichi Targets 2010
UNESCO World Heritage Convention (1972)
EUROPEAN UNION
European Landscape Convention (2000, with UK adoption 2007)
The Birds Directive (79/409/EEC), (1979)
The Habitats Directive (92/43/EEC), (1992)
Our life insurance, our natural capital: an EU biodiversity strategy to 2020, European Commission, 2011
The Water Framework Directive (2000/60/EC), (2000)
The Waste Framework Directive, (2008/98/EC) (2008)
Renewed EU Sustainable Development Strategy (June 2006)
The Strategic Environmental Assessment Directive (2001/42/EC)
EC DIRECTIVE 2003/4/EC on public access to environmental information, (2003)
The European Convention on the Protection of Archaeological Heritage (Valetta Convention)
The Convention for the Protection of the Architectural Heritage of Europe (Granada Convention)
NATIONAL
Wildlife and Countryside Act (as amended), (1981)
Countryside and Rights of Way Act (CRoW), (2000)
The Natural Environment and Rural Communities (NERC) Act (2006)
The Conservation of Habitats and Species Regulations 2010 (as amended)

Sustainable Energy Act (2003)
Secure and Sustainable Buildings Act (2004)
Ancient Monuments and Archaeological Areas Act, (1979)
Planning (Listed Buildings and Conservation Area) Act, (1990)
Climate Change Act 2008
Localism Act 2011
Marine and Coastal Access Act 2009
„The Natural Choice", the Natural Environment White Paper (Defra, 2012)
Water for Life, the Water White Paper (Defra, 2011)
Local Transport White Paper 2011
National Planning Policy Framework (CLG 2012)
Business Plan 2012-2015 (Defra 2012)
Business Plan 2012-15 (DCMS, 2012)
Biodiversity 2020: A strategy for England"s wildlife and ecosystem services (Defra 2011)
Natural England Designations Strategy, July 2012
The Invasive Non-Native Species Framework Strategy for Great Britain, Defra, 2008
State of the Natural Environment in the North West, 2009, Natural England
UK Geodiversity Action Plan, 2009
Government's Statement on the Historic Environment for England 2010
Research and Archaeology in North West England: An Archaeological Research Framework for North West England Volume 2 Strategy
Heritage at Risk Strategy, 2011-2015, English Heritage, 2012
Conservation Principle, Policy and Guidance, English Heritage, 2008
The Carbon Plan (DECC, 2011)
Code for Sustainable Homes (CLG, 2009)
UK Renewable Energy Strategy
Securing the Future – UK Government Sustainable Development Strategy (DEFRA, 2005)
Mainstreaming sustainable development – The Government"s vision and what this means in practice (Defra, 2011)
Safeguarding our Soils – A Strategy for England (Defra 2011
The Air Quality Strategy for England, Scotland, Wales and Northern Ireland, (2007)
Government Forestry and Woodlands Policy Statement 31 January 2013

Government Tourism Policy (DCMS) 2011
Sustainable Tourism in England: A Framework for Action (DCMS) 2009
Healthy lives, healthy people: Improving outcomes and supporting transparency (DH, 2012)
Game Plan: A Strategy for Delivering Government" s Sport and Physical Activity Objectives Social Exclusion Unit, Department of Culture, Media and Sport (2002)
State of the Countryside report 2010 , Commission for Rural Communities (2010)
Rural Statement published on 12/9/2012
LOCAL
Craven District Council Local Plan (adopted 1999)
Lancaster District Local Plan (adopted 2004)
Replacement Pendle Local Plan (adopted 2001)
Preston Local Plan (adopted 2004)
Central Lancashire Core Strategy for Preston, South Ribble and Chorley (adopted 2012)
Central Lancashire Rural Development Supplementary Planning Document (adopted 2012)
Central Lancashire Design Supplementary Planning Document (adopted 2012)
Ribble Valley Districtwide Local Plan (adopted 1998)
Wyre Local Plan (adopted 1999)
Joint Lancashire Minerals and Waste Development Framework
North Yorkshire Minerals and Waste Plan
A Landscape Strategy for Lancashire, Lancashire County Council Environment Directorate, 2000
Bowland Fringe and Pendle Hill National Character Area 33 Profile (2012)
Bowland Fells National Character Area 34 Profile (2012)
The Lancashire Biodiversity Action Plan, Lancashire Biodiversity Partnership, (2001)
Craven Local Biodiversity Action Plan (2008)
Lancashire GAP 2010, GeoLancashire
Lancashire Historic Landscape Characterisation Programme (2000)
Planning guidance for renewable energy – Lancashire (2011)
Lancashire Rights of Way Improvement Plan (2006)
North Yorkshire Rights of Way Improvement Plan (2007)
Lancashire Health and Wellbeing Strategy (2012)
Lancashire and Blackpool Visitor Economy Strategy 2006 -2016

Lancashire Destination Brand Guidelines, Lancashire and Blackpool Tourist Board
Welcome to Yorkshire, Our five year strategy for the Yorkshire Brand 2012 - 2017
Craven Sustainable Community Strategy, 2007 - 2013
Pendle's Sustainable Community Strategy, 'Our Pendle, Our Future', 2008 -2018
Preston Community Strategy, 2011 - 2014
Lancaster District Local Strategic Partnership, Sustainable Community Strategy, 2008-2011
Ribble Valley Sustainable Community Strategy, 2007 -2013
Wyre Sustainable Community Strategy, 2007 - 2025
Lancashire Growth Plan 2013/14
York, North Yorkshire and the East Riding Growth Strategy 2013/14
North West River Basin Management Plan
Lune & Wyre catchment abstraction management strategy (2013)
Ribble, Douglas & Crossens catchment abstraction management strategy (2013)
Local Transport Plan 2011- 2021 - A Strategy for Lancashire(2011)
North Yorkshire Local Transport Plan, 2011 - 2016 (2011)
Lune Catchment Flood Management Plan, Summary Report December 2009
Ribble Catchment Flood Management Plan, Summary Report December 2009
Wyre Catchment Flood Management Plan, Summary Report December 2009
Lancashire Climate Change Strategy 2009-2020,
Climate Change Plan for Yorkshire and Humber 2009-2014
Lancashire Green Infrastructure Strategy 2009

APPENDIX 2 - ECOSYSTEM SERVICES IN THE FOREST OF BOWLAND AONB

Ecosystem Services are the benefits which the environment provides to society. In the Forest of Bowland the obvious benefits are the natural resources such as food, fuel and water; however there are many others too, see the table below. The aim behind identifying ecosystem services is to attempt to attach a value to these services provided by the landscape, in order to assess its importance to society. Services are divided into four categories:

Provisioning Services: natural resources provided by the landscape, for example via farming and forestry: food, wood, water and fuel are included

Regulating Services: systems within the landscape which regulate the wider environment, for example via the water cycle and pollination: these include clean air and water, fertile and stable soils and climate regulation

Cultural Services: non-material opportunities created by the landscape to enable people to enjoy and benefit from the environment: these include recreation, a sense of place and heritage, tranquillity, education and tourism

Supporting Services: these are the basic services which make up the infrastructure of the environment, the wildlife and habitats, geodiversity, soil development, and water and nutrient cycling

ECOSYSTEM SERVICES IN THE FOREST OF BOWLAND AONB	
Provisioning Services	**RELEVANT OBJECTIVES IN MANAGEMENT PLAN**
Food: farmers produce predominantly extensive beef and sheep on the fells with more intensive beef, sheep and dairy farming within the valleys and lowland fringes. Hill farming systems concentrate on the production of suckler beef and store lambs. In addition, the western fringes of the AONB also support a number of other enterprises including pig, poultry and horticulture. Locally produced meat and dairy products contribute to the area's economy and this also contributes to the attraction of tourists to the area. The area also produces game (red grouse, pheasant and partridge) and is a rich fishing ground (notably for salmon and trout) on both still-waters and on the	1.2, 1.3, 1.4, 2.1

rivers	
Water: Bowland is a water gathering area and United Utilities own a large proportion of the fells, extracting water from the headwaters of the main rivers (Ribble, Wyre and Lune) and via key reservoirs at Stocks, Barley and Barnacre. The area traditionally supplied large parts of East Lancashire, Blackpool and Fylde with drinking water and water for industry, plus topping up Lancaster Canal	1.3, 1.4, 2.1
Timber: there are a number of coniferous plantations in the AONB which are managed sustainably for timber production, notably at Gisburn Forest. There are also good opportunities for increased extraction of timber from broadleaved woodlands: providing fuel and timber for local use	1.3, 2.1
Energy: the AONB offers a significant resource for the production of renewable energy generation, particularly wind, small-scale solar and hydro, woodfuel and biomass	1.1, 1.3, 1.7, 2.1, 2.2
Rock and minerals: Historically, the AONB has seen lime extraction industries up until late 19th century and lead mining operations also in the 19th century. Today, there are a number of active quarries within the AONB providing various stone, aggregate and clay brick products	1.1, 1.5, 1.7, 2.1
Supporting Services	
Wildlife habitats and species: The AONB contains over 16,000 ha of nationally important Sites of Special Scientific Interest (23 sites, covering 13% of the AONB), much of it being blanket bog and heather moorland, covering the high fells – but also notable upland hay meadows and ancient woodlands. The complex mosaic of habitats including grasslands, woodland, hedgerows and moor provide a rich ecological network. The area is important for breeding birds especially raptors including hen harrier, peregrine and merlin; and waders such as lapwing, curlew, redshank and snipe. This international importance for birds is recognised by the designation of the Bowland Fells (approx.16,000 ha) as a Special Protection Area (SPA). In addition, numerous rivers and watercourses provide habitats for salmon, brown and sea trout, as well as birds such as kingfisher, dipper, grey wagtail, common sandpiper and oystercatcher. Otters are also present along rivers on the northern side of the Bowland Fells. This biodiversity is vital to sustaining the ecosystems and to providing an attractive natural environment for people to enjoy	1.2, 1.3, 1.4
Geodiversity: underlying limestones, gritstones and shales create the AONB's basic landforms. These were modified by glaciations and the resulting wide river valleys, meltwater troughs and moraines add to the area's character. River erosion and deposition also create important features such as fans and channel erosion; and a number of quarries exist for small and large scale extraction of building stone and aggregates, and for cement production. There are both nationally and locally important sites designated for their geological importance within the AONB	1.5, 1.7
Nutrient cycling: plants and animals are responsible for cycling and re-cycling nutrients within natural systems, e.g. for breaking down of decayed matter and for enabling natural fertilisers to enrich the farmland. If inputs are increased artificially to this system then it can be thrown off balance and result in over enriched soils and	1.2, 1.3, 1.4

eutrophication of water bodies	
Cultural Services	
Sense of place: the Forest of Bowland AONB has a distinctive sense of place drawn from its contrasting and complementary landscapes: with a mixture of pastures, parkland and hedgerows in the lowlands and large expanses of moorland used for sheep grazing and grouse shooting on the higher fells. Settlements are small and dotted around the foothills, river valleys are often steep and wooded. This distinctive character lends a feeling of 'a step back in time' to the area and adds to its attraction for visitors	1.1, 1.2, 1.5, 1.6
Heritage: the area holds almost 900 listed buildings and designated heritage assets (818 Listed Buildings, 48 Grade I and II* Listed Buildings, 20 Scheduled Monuments and one Registered Park and Garden), ranging from Bronze Age and Roman through medieval and Tudor. The area's distinctive dry stone walls reflect the parliamentary enclosure acts of the 18th and 19th centuries, and the former hunting Forests date from Norman times. Village and farm settlements illustrate the influence of Norse invaders right through to small scale 18th and 19th century industries. The area's history adds to its tourism and education offer	1.6
Tranquillity: whilst over 99% of the Bowland Fells can be classed as undisturbed, this falls to 76% in the fringe area due to the impact of traffic noise in the M6/A6 corridor and along other main roads and around the larger settlements outside the AONB boundaries. The Bowland Fells also offer some of the darkest skies in England with low levels of pollution. Tranquillity and 'dark skies' can add to the tourism offer of the area as well as to residents' health and well being.	1.1, 1.7
Recreation: the Forest of Bowland has an excellent network of public rights of way and over 25,000 ha of open access land. This attracts a large number of walkers and increasing participation by horse riders and cyclists, both on and off-road. There are also good opportunities for less mobile country-lovers with a network of tramper trails; and for birdwatchers, anglers and shooting parties. The area's food and drink offer is of a very high quality and attractive pubs and teashops provide a clear link between locally produced food and drink and the visiting public. Beacon Fell country park is managed by Lancashire County Council and attracts nearly 100,000 visitors a year	2.3, 2.4, 3.1, 3.2, 3.3, 3.4
Tourism: The AONB was awarded the European Charter for sustainable tourism in protected areas in both 2005 and 2010 and as such it co-ordinates and encourages tourism businesses in the area to trade in a sustainable and sympathetic manner, promoting the AONB as a 'green tourism' destination. The landscape and natural beauty of the area, together with its wildlife and history, is seen as the key draw for visitors: and therefore contributes directly to the local economy	2.3, 2.4, 3.4
Knowledge and education: The AONB partnership offers a large number of opportunities for both formal and informal education – including school visits to farms, arts workshops and performances, bird watching safari's, field studies for students; and opportunities for volunteering in traditional countryside skills. In 2013 the Festival Bowland programme offered over 120 events and attracted in excess of 1300 participants	2.3, 3.4, 3.5, 3.6
Health & wellbeing: Visits to the countryside provide excellent opportunities for gentle walking and relaxing days	2.2, 2.3, 3.1, 3.2, 3.3, 3.4

out. These can contribute to individual's health and wellbeing, at a minimal cost	
Regulating Services	
Regulating climate change: carbon dioxide is absorbed by farmland and woodland and perhaps most importantly by blanket bog. Restoring blanket bog and eroding peat so that it can become an active carbon store is a vital contribution to mitigating against climate change. Adapting to climate change can also be achieved through the AONB environment, especially when considering flood management (see below)	1.3
Regulating soil erosion: the risk of soil erosion in the AONB is high; due to the high peat content, steep slopes and high rainfall of the area. Increasing drought may also lead to soil erosion. Improving vegetation cover, reducing over grazing, and controlling burning and recreational pressures can all help to reduce soil erosion in a sustainable manner	1.2, 1.3
Regulating soil quality: soil compaction and loss of organic matter can be reduced if soil is managed sustainably by reducing stock and human pressure; and by reducing the impact of flash flooding	1.2, 1.3
Regulating water quality: reducing water colouration by managing the uplands in a sustainable manner has already shown, via the United Utilities SCaMP programme in Bowland, that land management can have economic benefits. Likewise water quality can be improved using natural processes, such as filtering and decomposition. Water quality tends to be good in the headwaters of the AONB, often falling to moderate further downstream	1.2, 1.3
Flood control: re-wetting of the moorlands to store carbon also helps the blanket bog habitat to retain heavy rain downpours and to reduce flash flooding, run off, erosion and the flooding of downstream communities, particularly larger urban populations outside the AONB.. Additional works such as enabling floodplains to absorb high river levels and floodwater (as at Long Preston on the Ribble), can also help to reduce flood risk in downstream areas	1.2, 1.3

APPENDIX 3 - LIST OF ABBREVIATIONS

BARS2	Biodiversity Action Recording System 2
BD Working Group	AONB Biodiversity Working Group
BD2020	Biodiversity 2020: A Strategy for England's Wildlife and Ecosystem Services
BEx	Bowland Experience Limited
BHS	Biological Heritage Site
BLMF	Bowland Land Managers Forum
CIC	Community Interest Company
CPRE	Campaign for the Protection of Rural England
CRoW	Countryside and Rights of Way Act 2000
CSF	Catchment Sensitive Farming
Defra (or DEFRA)	Department for Environment Farming and Rural Affairs
DPCR-05	(Electricity) Distribution Price Control Round 5
DPD	Development Plan Document
EA	Environment Agency
ENWL	Electricity North West Limited
EU	European Union
EUROPARC	Europarc Federation for Europe's Protected Areas
FOG	Fire Operations Group
GTBS	Green Tourism Business Scheme
HLC	Historic Landscape Characterisation
HLS	Higher Level Stewardship
IUCN	International Union for Conservation of Nature
JAC	AONB Joint Advisory Committee
LAF	Local Access Forum
LCC	Lancashire County Council

LCC E&C Projects	Lancashire County Council Environment and Community Projects Team
LEADER	Liaison Entre Actions de Développement de l'Économie Rurale (or Links Between Activities Developing the Rural Economy)
LEP	Local Enterprise Partnership
LERN	Lancashire Environmental Records Centre
LNP	Local Nature Partnership
LPA	Local Planning Authority
LWT	The Wildlife Trust for Lancashire, Greater Manchester and North Merseyside
NAAONB	National Association for AONBs
NE	Natural England
NELMS	New Environmental Land Management Scheme
NERC	Natural Environment and Rural Communities Act 2006
NEYEDC	North and East Yorkshire Ecological Data Centre
NPPF	National Planning Policy Framework
NYCC	North Yorkshire County Council
Ofgem	Office of Gas and Electricity Markets
PFG	AONB Partnership Funders Group
PRoW	Public Rights of Way
RDPE	Rural Development Programme England
RIIO-ED1	Revenue = Incentive + Innovations + Outputs Electricity Distribution Round 1
RoWIP	Rights of Way Improvement Plan
RSPB	Royal Society for the Protection of Birds
RVBC	Ribble Valley Borough Council
SDF	Sustainable Development Fund
SINC	Site of Interest for Nature Conservation
SSSI	Site of Special Scientific Interest
TIC	Tourist Information Centre
UCLAN	University of Central Lancashire
UVA	Undergrounding for Visual Amenity
YDMT	Yorkshire Dales Millennium Trust

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Part III: Forest of Bowland AONB Obtrusive Lighting Position Statement

Obtrusive Lighting Position Statement

1. Introduction

1.1Over the last century large parts of Britain have rapidly lost access to naturally dark skies. Light in the wrong place, or obtrusive lighting, is one of the major unaddressed sources of pollution in this country and it affects people, wildlife and our landscapes. In 2009 the Royal Commission on Environmental Pollution published its report on Artificial Light in the Environment[1] and recommended that **those responsible for the management of existing National Parks and Areas of Outstanding Natural Beauty and the equivalent National Scenic Areas in Scotland seek to eliminate unnecessary outdoor light and to better design and manage that which cannot be eliminated.**

1.2 In the Forest of Bowland AONB our relative isolation means that there are areas of land still largely unaffected by light pollution, however where lighting is obtrusive (eg on isolated dwellings or within some developments) this can seriously affect the quality of the landscape which was designated partly because of its tranquility and its value to heritage and biodiversity. In the words of the Royal Commission: '*we believe that access to the natural beauty of the night sky is every bit as important as the preservation of other aspects of natural beauty which society routinely seeks to protect for the enjoyment of its citizens and for posterity*.'

2. Purpose of this Position Statement

2.1 This paper has been produced in order to clearly set out the position of the AONB Partnership with regards to obtrusive lighting in the Forest of Bowland. It aims to provide guidance to assist the six local planning departments which operate in the area, and which have a duty to further the purposes of the AONB. It is hoped that this guidance will assist in the determination of planning applications for any development which may include exterior lighting.

2.2 This Position Statement should be read in conjunction with the AONB's Guidance on Lighting for residents and businesses and with the examples of Good Practice we have compiled. These additional documents aim to encourage and support a gradual removal of existing obtrusive lighting as this cannot be tackled via the planning process.

2.3 This document, plus the Guidance and Good Practice, complements the AONB's work on Dark Sky tourism by providing encouragement and support to partners wanting to lend their support to the initiative.

3. Obtrusive Lighting and Dark Skies

3.1 Most people expect to see some lighting at night as it helps to guide your way and to provide a sense of security. However, light in the wrong place (where it is not intended or wanted), or at the wrong time, is a form of pollution as it spoils the environment. Artificial light creating an impact on health and wellbeing, can be classed as a statutory nuisance[2].

3.2 The RCEP report mentioned above, identified that obtrusive lighting can affect the migration and feeding behaviour of some birds and the feeding habits of insects and their predators. It can also have an impact on human health and wellbeing through causing sleep disturbance and stress. Importantly, obtrusive lighting can reduce the intensity of dark skies: reducing the opportunity to view constellations, the Milky Way and astronomical events.

3.3 Light pollution can take on various forms and can originate from different sources:

Form	Source	Effect
Glare	Spotlights, security lamps or headlamps often incorrectly sited or not shielded	Excessive contrast between light and dark in the field of vision
Trespass	Poorly directed exterior lights	Intrusive light affecting neighbouring properties
Scenic intrusion	Clutter or profligacy of lights in a natural environment	Over illumination and distraction, a reduction in the scenic quality and loss of dark skies
Sky glow	Street, traffic and building lights, creating a combination of reflection and refraction of light in the atmosphere	Causes a lack of contrast between a dark and light sky many miles from the source

[1] *Artificial Light in the Environment*, The Royal Commission on Environmental Pollution, 2011
[2] Clean Neighbourhoods and Environment Act, 2005

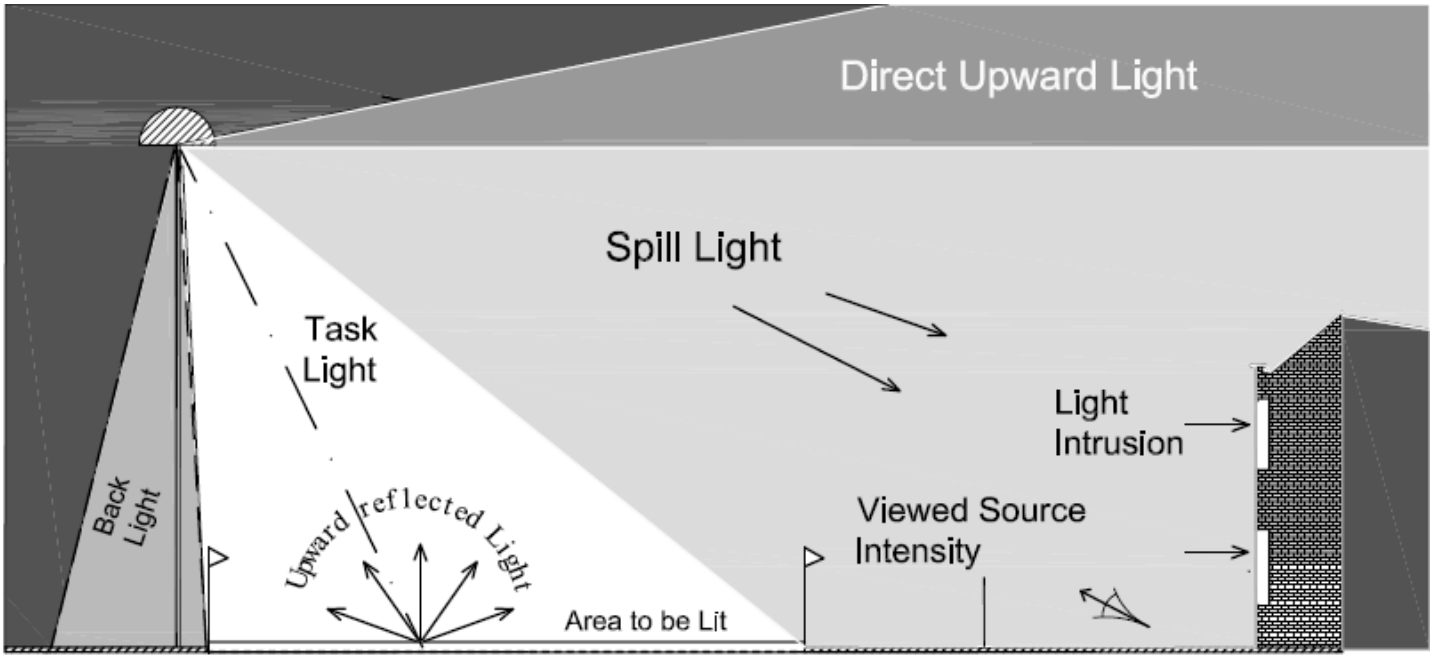

Fig 1: Types of obtrusive light (from ILP Guidance Notes)

4. Reasons for Control

4.1 Guidance produced by the Institution of Lighting Professionals [3]identifies five Environmental Zones for local authorities to specify exterior lighting controls in their Development Plans. In this Guidance, zone E1: National Parks and AONBs are categorised as having 'natural surroundings' which should be kept 'intrinsically dark'.

4.2 A reduction in obtrusive external lighting will improve the night time scenic quality of the AONB by maintaining this intrinsic darkness. It will also lessen the impact on wildlife such as birds, invertebrates and plants which can be affected by artificial lighting when it masks seasonal and diurnal patterns. Controlling obtrusive lighting at night will also bring benefits to residents through a reduction in glare and trespass.

4.3 Any reduction of light pollution will also help to maintain and improve the area's dark skies which are becoming a tourism asset: this contributes to the local economy via increased visitor spend in accommodation and eateries, and the increased use of local services.

4.4 Reducing excessive exterior lighting will cut energy costs and saves carbon. In some areas total 'switch offs' of public street lighting, especially on highways and motorways has met with public approval and no increase in crime or accidents. In Lancashire there is no appetite for switching off, however dimming will soon be introduced from dusk til dawn on old street lighting stock whilst low cost LED lamps are introduced to around half of the street lights in the county over the next 3 years (2015-18).

5. Position Statement

5.1 It is considered that exterior lighting proposed as part of any new development, within or affecting the boundaries of the AONB, should be **the minimum required and only appropriate to its purpose, so as to protect the area's natural surroundings and intrinsic darkness.**

5.2 Proposals for exterior lights should follow the AONB Guidance and Good Practice and should be able to demonstrate **that there is not a significantly adverse effect, individually or cumulatively, on: the character of the area; the visibility of the night sky; biodiversity (including bats and light sensitive species); and residents, pedestrians or drivers.**

[3] *Guidance Notes for the Reduction of Obtrusive Light GN01: 2011*, Institution of Lighting Professionals

Part IV: Forest of Bowland AONB Renewable Energy Position Statement

April 2011

Renewable Energy Position Statement

1.1 Introduction

1.1 Under the Climate Change Act of 2008 the Government is committed to delivering an 80% reduction of greenhouse gas emissions by 2050, including a 34% reduction by 2020. In order to achieve these reductions a number of actions will need to take place, notably improving energy efficiency and reducing the demand for power. In addition the UK is committed to increasing the percentage of power that it produces from renewable sources to 20% by 2020, and reducing its dependence on fossil fuels. Supporting micro-renewables, i.e. small scale and local power generation, is an important part of this equation.

1.2 The Forest of Bowland Area of Outstanding Natural Beauty (AONB) is a statutory protected landscape, and as such each local authority within the Forest of Bowland AONB has a duty of care to ensure that the landscape is not affected by unsightly development. Current legislation (section 85 of the Countryside and Rights of Way Act 2000) requires that 'in exercising or performing any functions in relation to, or so as to affect land' within the designated landscape an 'authority shall have regard to their statutory purposes'; i.e. to 'conserve and enhance the natural beauty of the area.'

1.3 The Government's Planning Policy Statement on renewable energy (PPS22) states that "planning permission for renewable energy projects should only be granted where it can be demonstrated that the objectives of designation would not be compromised and any significant adverse effects on the qualities for which the area has been designated are clearly outweighed by the environmental, social and economic benefits."

1.4 The Forest of Bowland AONB, like everywhere else, is affected by climate change, and its impact will increase as greenhouse gas emissions continue to build up in the atmosphere. It is important that the Forest of Bowland AONB plays its part in reducing emissions and this includes the small scale generation of energy from renewable sources.

2. The purpose of this Position Statement

2.1 This document sets out the Forest of Bowland AONB Joint Advisory Committee's position with regard to the siting of renewable energy developments, both within and adjacent to the boundaries of the Forest of Bowland AONB. This guidance is intended to assist in the determination of planning applications submitted to the planning departments of local authorities in the AONB partnership i.e. the districts of Craven, Lancaster, Pendle, Preston, Ribble Valley, and Wyre.

2.2 The document is also intended to offer advice to potential developers, and any business, community or resident who is seeking to install micro or small scale renewable systems within the Forest of Bowland AONB.

2.3 The Forest of Bowland AONB is a designated landscape not a planning authority. This role remains with the relevant local authority and it is they who are expected to carry out the duty of care mentioned in paragraph 1.2 and ensure that development within the AONB is in accordance with the requirements of national, regional and local planning policy

2.4 This document should be read in conjunction with:

- Forest of Bowland AONB Management Plan
- Forest of Bowland AONB Landscape Character Assessment
- Landscape Sensitivity to Wind Energy Development in Lancashire
- A Landscape Strategy for Lancashire
- Landscape and Heritage Supplementary Planning Guidance

2.5 Development and other activities within the Forest of Bowland AONB is guided by a partnership comprising six local authorities (see paragraph 2.1), plus Natural England, other statutory agencies, voluntary groups, communities, businesses and landowners with an interest in the area. The partnership is managed by a Joint Advisory Committee (JAC) which is made up of representatives of these partners and which meets twice a year. A small number of staff are employed to prepare, implement and review the statutory Management Plan, in conjunction with the partnership.

2.6 Within the Forest of Bowland AONB Management Plan, chapter 19 is devoted to 'Responding to Climate Change' with an overall vision: unpolluted air, soil and water to allow the landscape and wildlife of the AONB to be sustained; reduce CO2 emissions that exceed Government targets; the Forest of Bowland AONB is recognised as a place of best practice in responding to climate change.

3. General Guidance

3.1 Renewable energy developments can take the form of both heat and power generation:

- Electricity can be generated by hydro systems (water), photovoltaics (solar) and by wind turbines.
- Heat can be generated via the burning of wood fuel and other biomass products; using anaerobic digestion; solar thermal; and by using underground, water, and air source heat pumps.

3.2 For the purposes of this position statement the following definitions are used:

Technology	Micro	Small scale	Medium scale	Large scale
Wind turbines	25m tall or less to blade tip	25-60m to blade tip	60-90m to blade tip	90m+ tall
Wind farm	single	1 -5	6-10 turbines	11+
Hydro power	< 100kW	< 10MW	Over 10MW	Over 10MW
Biomass	household	Household, business or farm based	Over 10MW Electricity not consumed on site	Electricity not consumed on site
Photovoltaics	Household, c 5kW	Household, business or farm based < 10kW	10 - 50kW arrays. Electricity not all consumed on site	Over 50kW Electricity not consumed on site
Anaerobic Digestion	Household or farm based	Cluster of farms, site < 0.5ha	Site over 0.5ha, serving many farms	
Heat Pumps	household	Business or farm based		

3.3 The Forest of Bowland AONB Joint Advisory Committee considers that medium to large scale renewable energy development is not appropriate within the Forest of Bowland AONB (or in locations beyond the boundary where development would affect its setting and character) as it has significant potential to adversely affect the natural beauty of the AONB and to compromise the purpose of the statutory designation.

3.4 However, the Forest of Bowland AONB Joint Advisory Committee considers that micro and small scale renewable energy development may be appropriate within the designated area.

3.5 It is essential that renewable energy is developed in a way that is consistent across local authority boundaries, is in harmony with the landscape and in the interests of those who live and work in it, or visit it for pleasure.

3.6 Obviously some of these developments are considered to be more suitable to the Forest of Bowland AONB landscape than others. However, **this position statement is not intended to discourage the development of any form of micro and small scale renewables within the Forest of Bowland AONB**. In all instances, the acceptability of specific renewables development proposals in landscape terms should be demonstrated by developers through detailed investigation, analysis and careful siting, layout and design to ensure that they are done in a sensitive and appropriate manner.

4. Guidance for micro and small scale renewable energy schemes to be sited within the Forest of Bowland AONB

4.1 The Government's Planning Policy Statement on renewable energy (PPS22) states that as part of a national policy framework "small scale development should be permitted within AONB's provided that there is no serious environmental detriment to the area concerned." In addition the PPS confirms that "planning permission for renewable energy projects should only be granted where it can be demonstrated that the objectives of designation of the area will not be compromised by the development".

4.2 When reviewing applications for micro and small scale renewable energy installations within the Forest of Bowland AONB: our advice is to view any scheme on its own merits. Being sited within, or near to, the Forest of Bowland AONB should not be the sole reason for refusal of micro or small scale renewable energy schemes, unless significant environmental impacts are envisaged.

4.3 This guidance is for micro and small scale schemes only as the Forest of Bowland AONB Joint Advisory Committee will object to all plans to develop medium and large scale schemes.

This guidance is therefore provided for:

- Single micro and small wind turbines (up to 60m to blade tip) and small scale wind energy development
- Micro hydro schemes (up to 100kW)
- Small scale photovoltaics (up to 10kWp array)
- Small scale biomass (up to 10MW) and AD systems, and small scale heat pumps

4.4 Wind turbines

4.4.1 Where appropriate, micro and small scale wind energy development may be accommodated within the Forest of Bowland AONB landscape. Micro scale wind energy development particularly in locations where there would be a strong functional relationship with existing development such as farm buildings and views of it would be constrained by the topogrqphy is likely to be the most appropriate form of wind energy development for the AONB. Small scale wind farms may be appropriate for the AONB provided that they do not cause unacceptable harm to the natural beauty and special quality of the landscape. In all instances, micro and small scale wind energy development should:

- be of a form and design that is appropriate for the landscape and visual characteristics of the location
- be an appropriate scale for the location
- not be sited on a skyline or close to a prominent feature or within the setting of important historic features or landscapes
- not have significant cumulative impacts with other operational or consented wind energy development

4.4.2 The Forest of Bowland AONB Landscape Character Assessment and the Landscape Sensitivity to Wind Energy Development in Lancashire study should be consulted when assessing suitable sites.

4.4.3 Environmental impact assessments will usually be required if the application is for more than two turbines or if height exceeds 15m.

4.5 Micro hydro

4.5.1 The Forest of Bowland AONB has relatively high rainfall, fast flowing streams and rivers and a history of water power. This suggests that there may be some potential for micro hydro (less than 100kW) and smaller scale (up to 3MW) electricity generation within the Forest of Bowland AONB. A feasibility study prepared by Inter Hydro Technology will report in summer 2011 on the most favourable sites.

4.5.2 A micro hydro scheme would be likely to be acceptable in landscape terms where it appears as a minor, isolated feature within a large scale landscape or in locations where there is a direct relationship with existing development such as settlements and access routes.

4.5.3 Buildings and other associated developments should be of an appropriate scale, be carefully sited and be sympathetic to the local vernacular. Where existing historic structures are to be used and/or the site is in a designated Conservation Area, advice should be sought from the local planning authority's building conservation officer. Buildings, access roads, water transporting systems and power lines should be carefully sited.

4.5.4 Whilst mitigation of landscape and visual impacts is encouraged, care should be taken to ensure that screen planting, for example, does not highlight the development in an open landscape.

4.5.5 Environmental impact assessments will be required for schemes generating over 500kW, and consents from the Environment Agency must be obtained in all cases.

4.6 Biomass

4.6.1 Business and domestic scale biomass systems can normally be assimilated into existing buildings and as such may not require planning consent. New buildings housing biomass systems will require planning permission, and should be of an appropriate scale, be carefully sited and constructed in a vernacular style. Where existing historic structures are to be used and/or the site is in a Conservation Area, conservation advice should be sought from the local planning authority's building conservation officer.

4.6.2 Systems utilising locally sourced woodfuel can be seen as having a positive impact on the local landscape as they are generating a supply for wood products from positively managed woodlands.

4.6.3 Whilst mitigation of landscape and visual impacts is encouraged care should be taken to ensure that screen planting for example does not highlight the development in an open landscape.

4.6.4 Environmental impact assessments will be required if the site exceeds 0.5 hectares.

4.7 Photovoltaics and Solar Thermal

4.7.1 Small scale photovoltaics (PVs) are now within permitted development for residential buildings.

4.7.2 Small scale installations, usually up to 10kW arrays, on commercial, farm or community buildings that have minor landscape and visual impacts should not normally be objected to within the Forest of Bowland AONB. Careful siting can minimise the visual impact of arrays, and panels can be integrated into the building design, especially on new build properties. Planned installations on historic buildings, or within conservation areas, should seek advice from the local planning authority's building conservation officer.

4.7.3 Solar farms, or large numbers of PV arrays set up at ground level or on large scale farm roof systems, which may or may not move to track the sun, and which normally export electricity generated away from the site, will not normally be suitable for installation within the Forest of Bowland AONB as reflection of the suns rays is likely to make such installations highly visible, detracting from the natural landscape character of the area.

4.7.3 Solar thermal systems, which heat domestic hot water using flat panes or evacuated tubes mounted on a roof, are usually classed as permitted development. Larger scale schemes heating water for use on site, for example for dairy farms, will normally be considered to be appropriate within the AONB and will not be objected to by the JAC provided they are of an appropriate scale, are not visually intrusive and suitable mitigation of landscape and visual impacts are provided which ensures the natural beauty of the area is not adversely affected.

4.8 Anaerobic Digestion

4.8.1 Anaerobic Digestion (AD) plants, serving a single or small number of farms, may be sited within the Forest of Bowland AONB provided that the development can be incorporated within the farmstead, is of an appropriate scale, is

not visually intrusive, is constructed from appropriate materials and suitable mitigation of landscape and visual impacts is provided which ensures the natural beauty of the area is not adversely affected.

4.8.2 It is important that the level of traffic associated with the installation does not markedly increase vehicle movements to and from the site, and that land use in the proximity is not altered to 'feed' the plant with crops such as maize which are not normally cultivated in the area.

4.9 Heat Pumps

4.9.1 Heat pumps, using ground or water, are usually classed as permitted development for a residential dwelling, However air source pumps do currently require planning permission.

4.9.2 If purpose built associated buildings are required, eg to house the pumps, these may require planning permission. These developments should be of an appropriate scale, not be visually intrusive, and be constructed from appropriate materials. Suitable mitigation of landscape and visual impacts must be provided to ensure the natural beauty of the area is not adversely affected, and any such developments would normally be deemed appropriate to the AONB if they are within the area of an existing development, and use traditional materials in the vernacular style.

4.9.3 If extensive excavation is required for a ground source it is important that both historical and biodiversity experts are consulted as to the suitability of the area, and in any case that excavated areas are sensitively restored.

5. Additional advice, contacts and guidance for the siting of renewable energy developments within the Forest of Bowland AONB

5.1 General advice from the Forest of Bowland AONB is to locate developments:

- where they are appropriate to the landscape character type that they are situated within
- where they would not be a dominant feature in the landscape
- well back from upland edges or scarps
- away from viewed skylines, summits, prominent landforms and other distinctive landscape features
- away from remote and wilder areas
- where they make sympathetic use of existing buildings, tracks and other infrastructure
- where there would be no significant cumulative impacts with similar or other developments
- where there are opportunities to mitigate landscape and visual impacts and compensate for any unavoidable losses
- away from key amenity and heritage assets
- where they respect and are sensitive to important cultural associations
- away from public view – i.e. roads, footpaths or public open space – if at all possible
- within existing built areas – e.g. farmstead or settlement – where a strong functional relationship would be established rather than in isolated locations away from other built structures

5.2 The exact physical siting of micro renewable energy technologies on domestic, community, farm or business premises; be it hydro, solar or wind power, will determine its efficiency. For example, solar thermal panels and PVs work best on south facing roofs; whilst wind power will be maximised in more exposed and open sites. However, within the AONB, the distinctive natural beauty, landscape tranquillity, highly scenic views, biodiversity and historical features are all important elements of landscape quality and the impact on these will need to be balanced against maximising the efficiency of an installation.

5.3 Specialist advice and guidance from the Environment Agency, Lancashire County Council, English Heritage and local authority planning officers should be sought as appropriate. In addition the AONB's own Landscape Character Assessment should be used to identify the landscape character type/area of the location and its key features/forces for change and to note and act on any limitations listed within the management guidance for that classification.

5.4 A Landscape Impact Assessment may be required for some developments, and a consideration of other potential sites and opportunities for mitigation and compensation will be required as part of any application.

5.5 The Forest of Bowland AONB Manager, and Lancashire County Council's Landscape Unit may be contacted for advice at the addresses below.

5.6 In addition, the following guidance has been adopted by the grants panel of the Forest of Bowland AONB's Sustainable Development Fund. It is suggested that this stance is also adopted by planning authorities when viewing planning applications for small scale renewable energy projects within the AONB.

- Ensure all renewable energy technologies are investigated so that the most appropriate system is installed to meet the needs of the applicant and the specific location. Technologies should also be quality assured by the Microgeneration Certification Scheme as this ensures quality products and installation, and provides eligibility for the Feed in Tariff and the Renewable Heat Incentive scheme.
- Evidence should be provided to show that energy efficiency of the development has already been maximised – via insulation, energy efficient appliances, and waste minimisation measures
- Monitoring of the installation should be encouraged in order to evaluate its efficiency – e.g. by recording the energy generated and calculating any savings made

5.7 In addition to this position statement the Forest of Bowland AONB will also be including examples of good practice in the siting of photovoltaics and solar thermal roof panels as part of its forthcoming Design Guide.

Contact Details:

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1 Belle Vue Square | Skipton | BD23 1FJ | www.cravendc.gov.uk

Planning Policy Team | 01756 706472 | localplan@cravendc.gov.uk

If you would like to have this information in a way that's better for you, please telephone **01756 700600**.