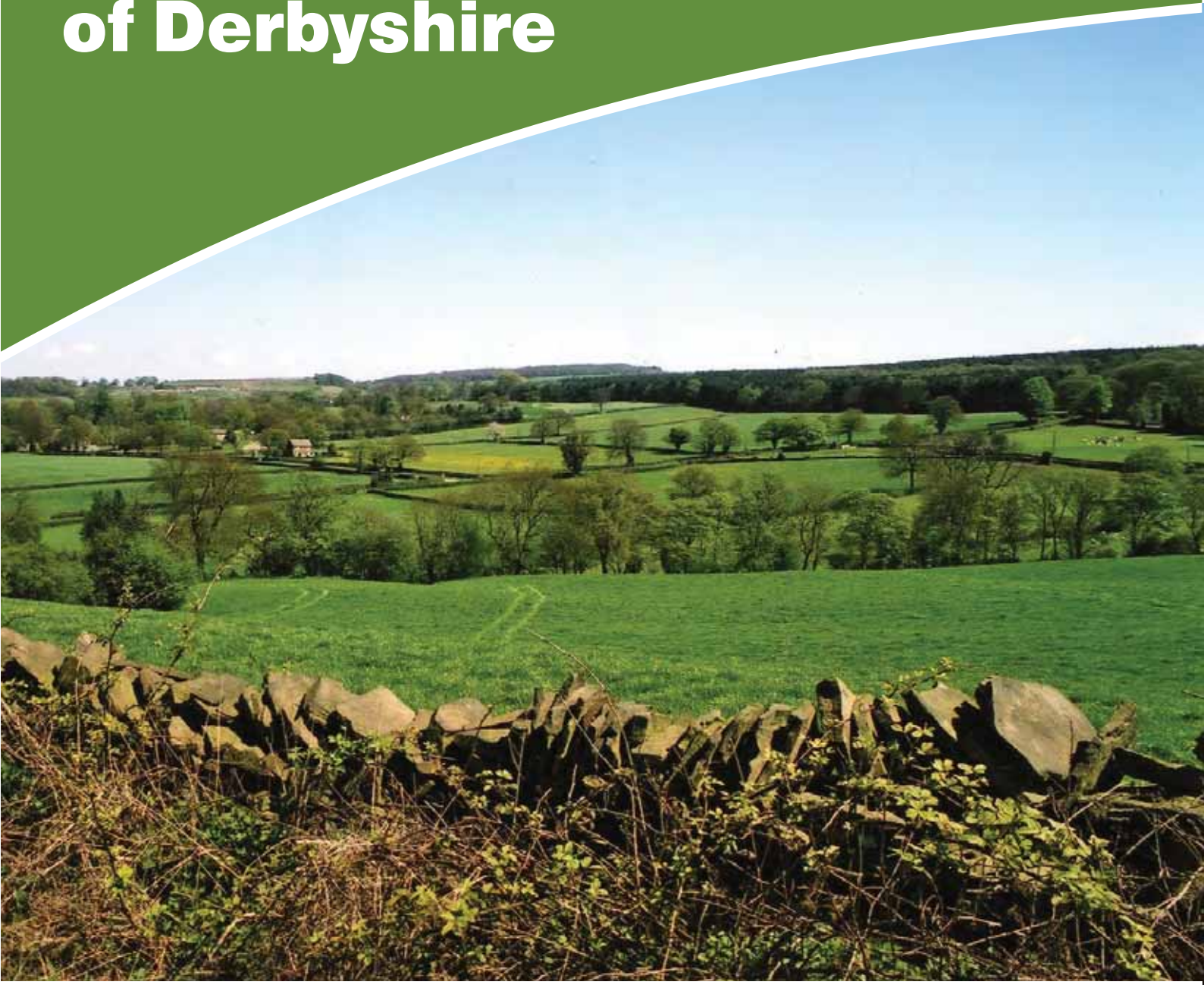
The Landscape Character of Derbyshire



DERBYSHIRE
County Council
Improving life for local people

"The English countryside is an exceptional creation - a corner of the world that is immensely old, full of surprises, lovingly and sometimes miraculously well maintained, and nearly always pleasing to look at. It is one of the busiest, most picked over, most meticulously groomed, most conspicuously used, most sumptuously and relentlessly improved landscapes on the planet."

Bill Bryson, Author.
The Sunday Telegraph, 1 October 2000

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FOREWORD

Derbyshire's beautiful and varied landscapes make our county a place of which we are truly proud. It shapes our economy, our communities and makes us the people that we are.

This 10th anniversary update brings together a huge amount of work about the landscape character of Derbyshire. It provides an invaluable resource for planners, environmentalists and teachers. It brings together information about how the landscapes were formed and how human activity has transformed them.

Most significantly, this work identifies the degree to which landscapes are at risk. This will enable us all in the future to avoid damaging sensitive landscapes and to take steps to restore those which have suffered in the past.

We must put this document to work, to allow the Derbyshire economy to flourish whilst at the same time protecting and enhancing the landscapes that we hold so dear.

Anne Western

Councillor Anne Western,
Leader of Derbyshire County Council

INTRODUCTION

Derbyshire sits at the heart of England with a diverse range of landscapes from the upland moors of the Peak District to the expansive floodplain of the Trent Valley. It occupies a unique position encompassing England's upland-lowland divide between the north and south, and the dairy-arable transition from west to east. The quality of Derbyshire's landscape is recognised, in part, by the designation of the Peak District National Park but this document identifies and recognises the intrinsic qualities of all landscape and focuses on the landscape of Derbyshire outside the National Park designation.

There are many elements that define landscape character but these can essentially be divided into the physical and natural processes such as geology, landform and soils, and the human processes affecting settlement, enclosure patterns and land cover.

Landscape characterisation as a concept is value free and does not label areas as attractive or unattractive, high or low quality. All areas have recurring features that contribute to or detract from the overall qualities of an area and this assessment is an objective exercise to identify these features and understand their development.

Background to the Review

This is the fourth edition of 'The Landscape Character of Derbyshire' document but is the first comprehensive review since it was first published in December 2003. Since its publication, much has happened with respect to the consideration of landscape issues as part of the planning process. This 10 year review of the document has allowed Derbyshire County Council (DCC) to re-evaluate data collected as part of the original landscape character assessment, to take stock of changes to the planning and regulatory system, and to reflect on how the work has helped to inform and guide landscape change in the intervening period.

As part of the review of the 'Landscape Character of Derbyshire', a questionnaire was circulated to selected employees within DCC's former Environmental Services Department (now Economy, Transport and Environment).

The key findings of this survey can be summarised as follows:
Overall, it was felt that no changes were required to the format and layout of the document as most people found the document easy to use. However, there was a need to:

- update the document;
- improve the layout of plans in the document;
- explain the link to Biodiversity Action Plans (BAPs);
- outline how to use the document when designing a scheme;
- include examples of good practice using case studies;
- improve the functionality of electronic maps ;
- improve the interactive web based document;
- raise awareness of how to use the document amongst DCC employees and external organisations.

These findings have underpinned the review.

The review has identified a number of minor errors or inaccuracies with respect to the original landscape character assessment. This has led to minor changes to urban areas to reflect recent expansion, boundary tweaks between some landscape character types and minor amendments to the text to better reflect the character of the landscape.

European Landscape Convention

The European Landscape Convention (ELC) is a significant European Community treaty that sets out the first comprehensive strategic agreement for the consideration of landscape matters within all relevant decision making nations across the community. In 2006, the UK Government signed and ratified the ELC and it came into effect in March 2007.

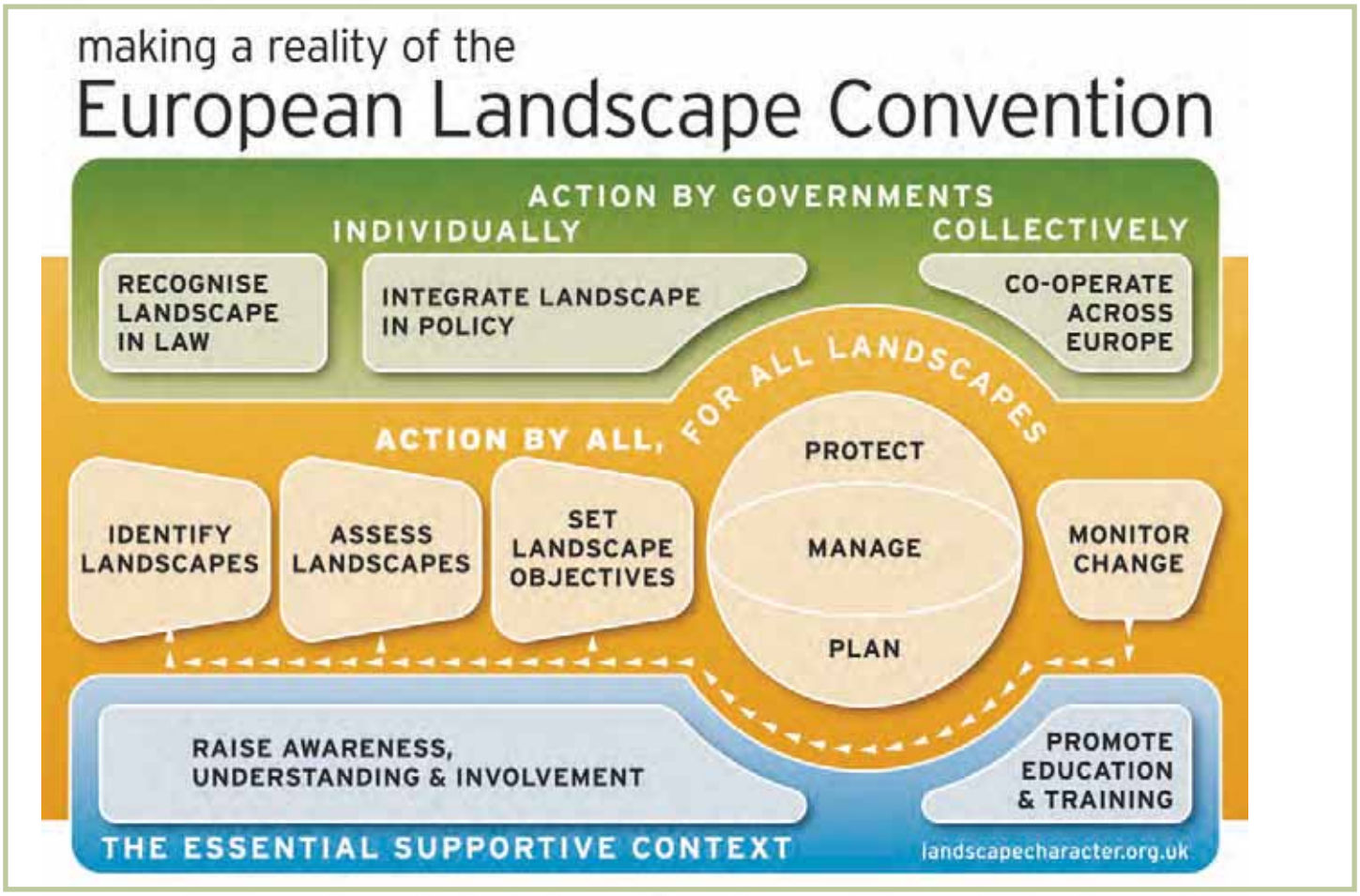
Whilst it is not a Directive (and does not therefore constitute law) the UK Government has ratified the Convention, and as such it is a key consideration in future landscape planning and management. As a consequence, it has the potential to significantly influence the UK's spatial planning systems and land management activities at all levels, as well as cultural, social and economic policy areas.

The ELC covers all landscapes, not only those valued for their scenic qualities but also those 'ordinary' landscapes that form the context for everyday life. It recognises that landscapes have important cultural, ecological, environmental and social roles and that they can provide beneficial contexts for economic activity. Landscapes are seen to contribute to human well-being and are recognised as being important influences upon quality of life, particularly in urban areas where landscape is often degraded.

> The ELC defines landscape as:
>
> 'Landscape means an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors.'

The fundamental aim of the ELC is to promote the protection, management and planning of all landscapes and, in doing so, achieve the aims of maintaining and improving landscape quality and local distinctiveness. The ELC promotes landscape as providing a spatial framework for decision making across a variety of sectors and activities.

The Derbyshire landscape character assessment fully embraces the principles of the ELC and provides the context for spatial planning and landscape policy in Derbyshire.



Countryscape (2008) based on a concept by Michael Dower and Adrian Phillips.

National Character Areas and Ecosystem Services

The Countryside Character Initiative, led by the former Countryside Agency (now Natural England), mapped England into 159 separate, distinctive character areas on a national scale. These National Character Areas (NCAs) share similar landscape characteristics within a very broad landscape context. There are 10 NCAs, which wholly or in part cover Derbyshire.

Since the original publication, other concepts have developed to further emphasise the need for an integrated approach to environmental planning and management. These are enshrined in the Natural Environment White Paper (2011) and are now firmly embedded in the recent review of Natural England's NCAs (formerly known as Joint Character Areas) and emerging profiles.

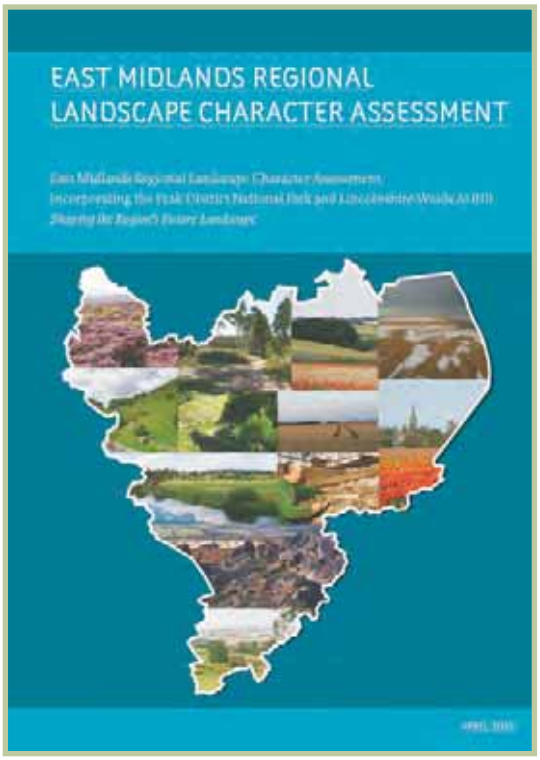
http://www.naturalengland.org.uk/publications/nca/default.aspx

The review of the NCAs again reinforces the role of landscape character as a framework for the consideration of other environmental factors such as biodiversity, geodiversity and the historic environment as part of an Ecosystem Services approach. The approach is not a new concept but does establish the key services that the natural environment provides for the economy, our social well-being and as part of a healthy environment. These services are categorised under the following headings:

- **Provisioning Services** - food, water, minerals, energy, etc.
- **Regulating Services** - carbon sequestration, water purification, crop pollination, decomposition, etc.
- **Cultural Services** - recreation, intellectual and spiritual inspiration, etc.

This approach allows for the consideration of the complex inter-relationship between these various factors to ensure that the landscape, as a component of the natural environment, continues to deliver these essential services and multiple public benefits. This publication fully accords with the national landscape characterisation work with the Derbyshire Landscape Character Types 'nesting' within the broader NCAs.

East Midlands Landscape Character Assessment



The East Midlands Landscape Character Assessment represents a new tier in the landscape character assessment hierarchy for England. It is designed to add a regional layer to the National Characterisation Project and provide a strategic context and framework for more detailed landscape character assessments at the county and district scales.

http://www.naturalengland.org.uk/regions/east_midlands/ourwork/characterassessment.aspx

The Aims of Landscape Characterisation in Derbyshire

The 10 NCAs within Derbyshire have been sub-divided into 39 Landscape Character Types (LCTs). LCTs are broad tracts of landscape that have a unity of character. Some of the types, like Riverside Meadows, are generic, having a similarity of character across a number of NCAs. A written description has been produced for each LCT. This sets out the key features that define its character, followed by more detailed descriptions of the elements which combine to create landscape character.

Planting and Management Guidelines for both trees and woodland have been included at the end of each LCT description. These have been developed to give stakeholders an overview of tree and woodland character by LCT with some guidance relating to new planting proposals. The species lists have been produced utilising Derbyshire Wildlife Trust's 'Habitat Creation Guide'. In order to apply some clarity and consistency to the size of new woodlands throughout Derbyshire, existing and proposed woodland is classified in the following size range:

- Small - 0 to 10 hectares
- Medium - 10 to 25 hectares
- Large - 25 to 50 hectares
- Very Large - >50 hectares

It should be appreciated that LCTs operate at a broad, strategic scale where areas like parkland are features that help to define landscape character. Some LCTs can change in character quite distinctly whilst in others the differences are more subtle. Boundaries have been drawn between LCTs as a single clear line often following a distinct feature like a field boundary or a road. In reality, the change between one LCT and another is not always clear-cut. Sometimes the transition between types is difficult to define in a line but it is hoped that the descriptions identify the essence of those differences, and the boundaries are seen as the changeover point where the characteristics of one type outweigh those of another.

The Derbyshire landscape character assessment has been primarily undertaken to underpin landscape planning, policy and decision making within the county and influence landscape considerations adjacent to its boundary. The assessment is intended to guide and promote a number of key planning aims:

Aim 1 - Landscape Character and Diversity
To maintain and enhance the overall quality and diversity of landscape character across the County, the distinctive sense of place and individual identity of each particular area.

Aim 2 - Managing Change
To support and complement planning policies by helping to ensure that new development respects and, where practicable, contributes towards enhancing the local character and sense of place of the landscape.

Aim 3 - Biological Diversity
To support and complement the aims of the Biodiversity Action Plans for Derbyshire, enriching biological diversity throughout the wider countryside and encouraging the sustainable management of Derbyshire's landscapes.

Aim 4 - Monitoring Landscape Change
To utilise landscape character as a spatial framework for evaluating the relative sensitivity of the landscape to change and to develop a process for monitoring change.

Aim 5 - Education
To promote the use of landscape character as an educational tool, raising awareness and helping to foster community engagement in the spatial planning of the landscape.

Landscape Change

'The Landscape Character of Derbyshire' acknowledges that landscape is not static or fixed at one point in time. Landscape is subject to many forces for change that apply pressures on the landscape giving rise to different impacts on landscape character and local distinctiveness. Since the first edition, various forces for change have gained in prominence with respect to their potential long-term effect on the landscape and natural environment. These include:

- **Minerals and Post-extractive Landscapes** - the exploitation of minerals is a key driver for change in some parts of the country and, in particular, Derbyshire. The need to quarry for various mineral resources can lead to large scale impacts on the countryside with significant effects on visual amenity and tranquillity. Large hard rock quarries and sand and gravel sites can lead to scars in the landscape, the impacts of which can be difficult to mitigate. Conversely, the restoration of some mineral sites, particularly opencast coal workings, can provide the opportunity to deliver landscape enhancements through the re-creation of locally distinctive features and habitats.

- **Housing Growth and Green Infrastructure** - the need to increase the supply of new homes to accommodate a growing population is seen as a significant force for change on the landscape, not only through its direct impacts, but also as a result of the increased pressures it places on existing ecosystem services. As part of a sustainable approach to new development, it will be important that all new development is supported by a network of Green Infrastructure that helps to reinforce landscape character and deliver the multiple public benefits required to contribute to our quality of life and social well-being.

- **Agriculture** - is a key factor that defines the character of the English countryside and market forces both globally and locally, allied to the Government's agricultural funding policies are key determinants in driving agricultural change. A spatial approach to land-use planning ensures that the inherent character of the landscape is fully understood so that impacts resulting from land-use change can be minimised.

- **Climate Change** - will have a significant effect on our future landscapes either as a consequence of the direct effects or as part of our adaptive strategies to mitigate the effects. Direct effects could result from increased temperatures or changes to rainfall patterns affecting the distribution of characteristic features and habitats. Adaptive responses could equally affect landscape character through the need to accommodate new low-carbon technologies such as wind turbines or changes to land-use as a consequence of woodland creation and the planting of new bio-fuel crops.

- **Pests and Disease** - recent events have demonstrated how pests and disease can impact on established landscape characteristics. The outbreak of disease such as foot and mouth can lead to permanent changes in farming practice as farmers move from stock rearing to arable production. This could lead to long-term changes in landscape character through the change in land-use but also through the loss of landscape features such as hedgerows, which are removed to facilitate larger fields for agricultural machines. Most recently, the issue of ash die-back as a result of the fungal infection, Chalara, has the potential to markedly change the character of some landscape types within Derbyshire, particularly some of those associated with the White Peak.

A key focus of this document is to ensure that valued and key characteristics that contribute to landscape character and sense of place are maintained and enhanced into the future whilst at the same time accommodating change arising from social, economic and environmental necessity.

Monitoring Landscape Change

As stated, the European Landscape Convention (ELC) is a significant landscape treaty that came into effect in the UK in March 2007. The ELC sets out the general provisions of the treaty as well as particular measures that each signatory nation will undertake to further its aims and intent. Article 5 of the ELC sets out the general measures of the treaty whilst Article 6 establishes specific measures relating to:

- Part A - Awareness-raising
- Part B - Training and education
- Part C - Identification and assessment

Article 6 - Specific Measures

Part C - 1. With the active participation of the interested parties, as stipulated in Article 5.c, and with a view to improving knowledge of its landscapes, each party undertakes:

a. i) to ***identify its own landscape*** throughout its territory;

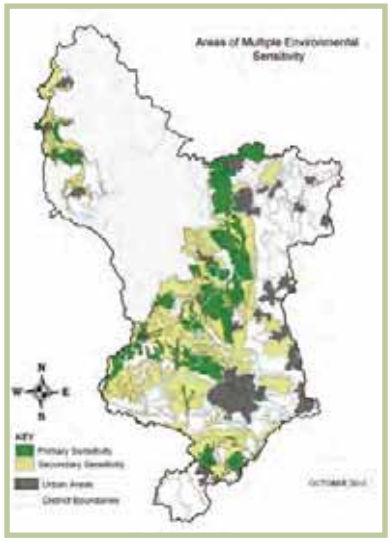
ii) to ***analyse their characteristics and the forces and pressures transforming them;***

iii) to ***take note of changes.***

'The Landscape Character of Derbyshire' publication through its definition and description of Landscape Character Types assists in the delivery of both the general and specific measures established in the ELC. New sections within the document will further assist in raising awareness of the landscape and issues affecting it; provide a resource for education and training; and provide a framework for further assessments including monitoring landscape change.

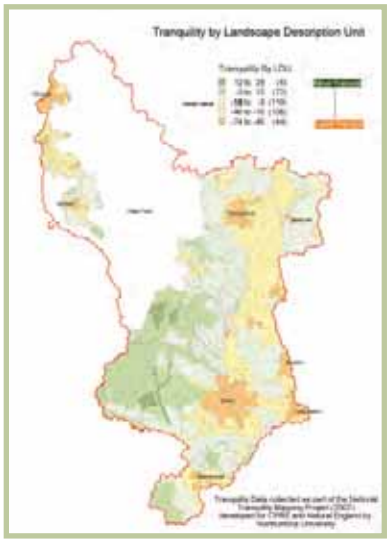
DCC has elected to monitor landscape change through various mechanisms including Fixed Point Photography as set out in Part 5 of this document and Technical Support Document 3 available on the DCC website.

Landscape Sensitivity



In order to inform the concept of landscape sensitivity, the landscape character assessment has been used as a spatial framework to review other known environmental datasets. This has resulted in a holistic approach to identify 'Areas of Multiple Environmental Sensitivity' (AMES) based on their biodiversity, historic interest and visual unity.

It is intended that these AMES will be used to inform strategic planning considerations. A detailed description of this work with plans is included in Part 4 of the document with a full methodology in Technical Support Document 1: Areas of Multiple Environmental Sensitivity which is available at www.derbyshire.gov.uk/landscape



Tranquillity data produced by the CPRE (Campaign to Protect Rural England) has been used in a similar way to provide a tranquillity map of the county outside the Peak District National Park. A detailed description of this work with a map is included in Part 5 of the document with a full methodology in Technical Support Document 2: Tranquillity which is available at www.derbyshire.gov.uk/landscape. Details relating to CPRE's tranquillity work can be found at www.cpre.org.uk.

Policy Context

National Planning Policy Framework (NPPF)

In 2012, the Government published the National Planning Policy Framework, which sets out the Government's planning policies for England to help achieve sustainable development. At the heart of the NPPF is a presumption in favour of sustainable development.

Sustainable development is defined in the Framework as "meeting the needs of the present without compromising the ability of future generations to meet their own needs" and recognises that there are three dimensions to sustainable development: economic, social and environmental. Pursuing sustainable development involves seeking positive improvements in the quality of the built, natural and historic environment.

The framework establishes 12 'Core Planning Principles' (p.5, 17) including:

> "***always seek to secure high quality design and a good standard of amenity*** for all existing and future occupants of land and buildings;"
>
> "***take account of the different roles and character of different areas,*** promoting the vitality of our main urban areas, protecting the Green Belts around them, ***recognising the intrinsic character and beauty of the countryside*** and supporting thriving rural communities within it;"
>
> "***contribute to conserving and enhancing the natural environment*** and reducing pollution. Allocations of land for ***development should prefer land of lesser environmental value,*** where consistent with other policies in the Framework;"

'The Landscape Character of Derbyshire' contributes to the aims and objectives of the NPPF by providing the spatial context for establishing landscape policy across the county.

Natural England Landscape Policies

The Derbyshire landscape character assessment responds to Natural England's Framework for Implementation of the ELC, which seeks to further strengthen the protection, management and planning of landscape in England. It is guided by the two broad outcomes of the Implementation Framework, both set within the context of sustainable development:

- "***strengthening of institutional frameworks*** - promoting a landscape perspective to influence spatial planning, land-use and resource management nationally, regionally and locally";
- "***creating an inclusive, people centred approach*** - raising awareness with the public and fostering community engagement as well as working with professionals, specialist bodies and politicians";

These broad outcomes establish a landscape perspective for integrated land-use planning and resource management, and this document will be essential to the delivery of these outcomes for Derbyshire.

Local Policy Context

The Derbyshire landscape character assessment underpins a number of policies being developed in the emerging Derby and Derbyshire Joint Minerals and Waste Local Plans, and District and Borough Local Development Frameworks.

The appropriate policies relating to landscape character can be found on the relevant planning authority's web site.

Amber Valley Borough Council	www.ambervalley.gov.uk
Bolsover District Council	www.bolsover.gov.uk
Chesterfield Borough Council	www.chesterfield.gov.uk
Derbyshire Dales District Council	www.derbyshiredales.gov.uk
Derby City Council	www.derby.gov.uk
Erewash Borough Council	www.erewash.gov.uk
High Peak Borough Council	www.highpeak.gov.uk
North East Derbyshire District Council	www.ne-derbyshire.gov.uk
South Derbyshire District Council	www.south-derbys.gov.uk

Derbyshire County Council Service Provision

- The Council Plan

The Council Plan establishes five pledges to service delivery across the county:

- A Local Derbyshire
- A Derbyshire that works
- A Healthy Derbyshire
- A Safer Derbyshire
- A Derbyshire that cares

'The Landscape Character of Derbyshire' will help inform the delivery of these pledges by recognising the intrinsic qualities and diversity of the landscapes across Derbyshire, and ensuring that the natural and cultural environment continues to play a vital role in underpinning the economy, as well as sustaining and enriching life. This publication will play a pivotal role in delivering a number of County Council priorities in particular:

- Placing 'Communities at the heart of decision making'
- Contributing to 'A strong economy';
- Sustaining 'Well connected communities';
- Maintaining 'Healthier communities with reduced health inequality'; and
- Providing 'Sustainable and green communities'.

Landscape Designations

- **Peak District National Park**

  A large part of the Dark Peak and White Peak NCAs are located within the Peak District National Park; a national designation to protect our finest landscapes. As a result, the National Park has its own administration that undertakes similar functions to DCC, particularly with respect to strategic planning. For this reason, as previously stated, the Derbyshire landscape character assessment has been undertaken for the area of Derbyshire outside the National Park. However, since the original publication of this document, the National Park Authority has undertaken and produced a landscape character assessment, landscape strategy and action plan. Details can be found on the Peak Park website at: http://www.peakdistrict.gov.uk

Landscape Initiatives

- **National Forest**

  Parts of South Derbyshire are located within the National Forest; a major strategic project to create a new 'forest' landscape across three counties connecting the extensively wooded landscapes of Needwood and Charnwood, both outside the county. In these exceptional circumstances, the strategic objectives of these major national projects may outweigh the local landscape character objectives. The National Forest has prepared a landscape character assessment and the findings of this study broadly conform to the LCTs defined in the Derbyshire landscape character assessment. Details can be found on the National Forest website at: http://www.nationalforest.org

- **Trent Valley Vision**

  It has been identified that there is, and will be, increasing pressures for change in the Trent Valley through Derbyshire. The need to identify further mineral sites for sand and gravel extraction and the allocation of land for new housing growth will place further demands on the landscape of the Trent Valley in the short and long-term, and these pressures are going to change and fragment the open agrarian landscape character of the valley in the next 50 years.

  Further gravel extraction and housing growth will change the character of the landscape irreversibly. The opportunity therefore exists to shape this change to deliver a new and attractive landscape with enhanced Green Infrastructure where people want to live, which attracts visitors to the area, provides new economic opportunities, and is rich in history and wildlife.

  Key to this will be the development of a clear landscape vision and strategy that plans for landscape change over a long period. This approach has now been adopted and is being promoted by the Lowland Derbyshire and Nottinghamshire Local Nature Partnership (LDN LNP). The County Council and District/Borough Councils have a duty to cooperate with the LDN LNP and should aim to assist in the development of a landscape vision and strategy to deliver high quality Green Infrastructure across the Trent Valley for existing and new communities. This document recognises and endorses this approach and supports the principle of transforming the character of the Trent Valley over the next 50 years.

Heritage Lottery Fund Landscape Projects

- **Limestone Journeys 2011-2015**

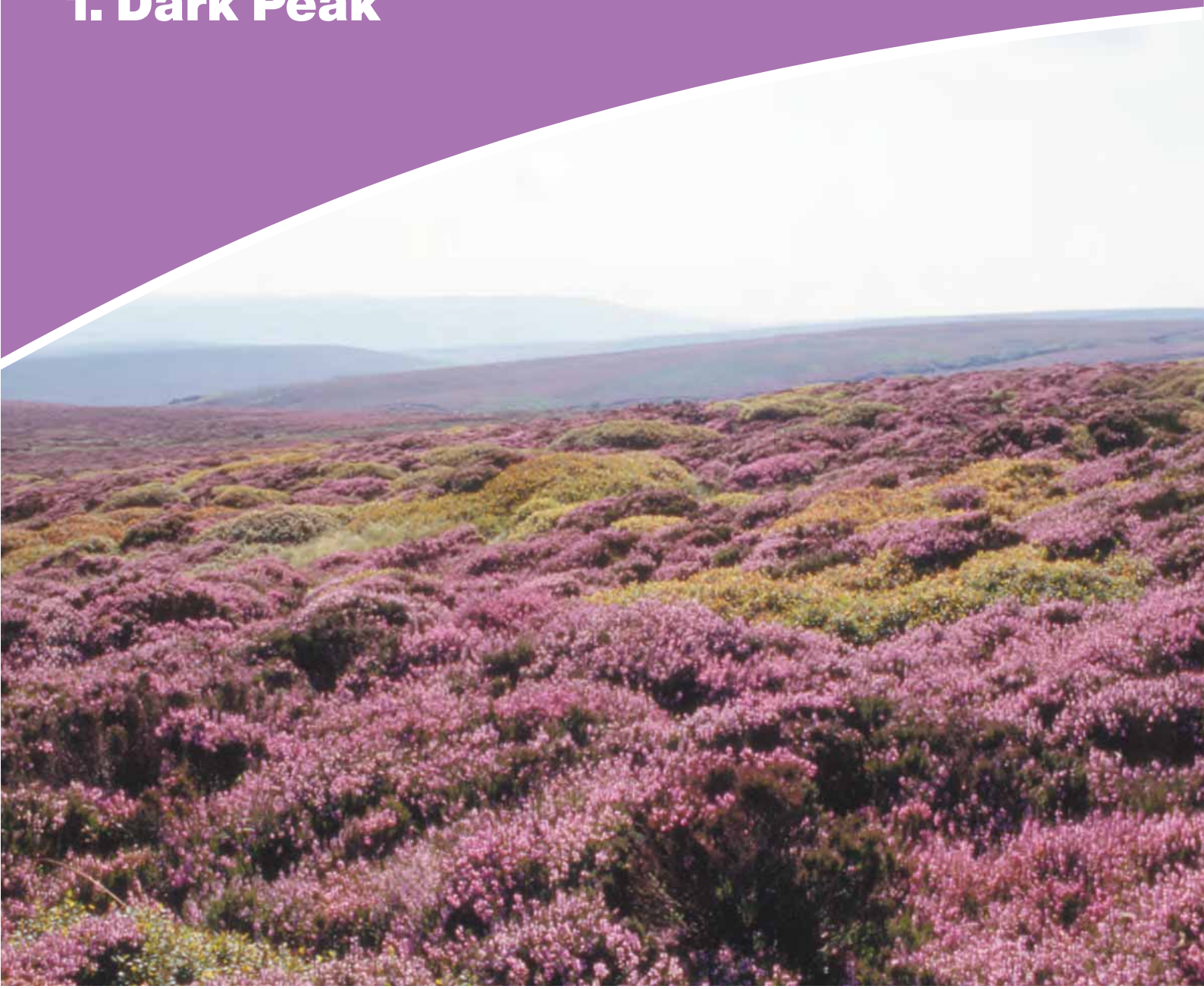
  Limestone Journeys is a five-year project focusing on the unique landscape and heritage of the **Southern Magnesian Limestone** area in north-east Derbyshire. Funded by the Heritage Lottery Fund, the Limestone Journeys partners are working on a range of schemes with communities, landowners and local groups to conserve the landscape, wildlife and rich heritage of the area, and encourage communities to learn about, enjoy and celebrate their local area. www.creswell-crags.org.uk/limestone-journeys.aspx

- **DerwentWISE 2013-2018**

  DerwentWISE is a Heritage Lottery Funded project, which focuses on the landscape and heritage of the Lower Derwent Valley between Matlock Bath in the north and Derby in the south. Located in the **Peak Fringe and Lower Derwent** and **White Peak** character areas, the project aims to preserve the landscape, wildlife and rich heritage of the valley through active management and restoration opportunities involving local communities and landowners. www.derbyshirewildlifetrust.org.uk/what-we-do/derwentwise

Part One: Landscape Character Descriptions

1. Dark Peak



Landscape Character Types

- Open Moors 1.4
- Moorland Fringe 1.7
- Enclosed Moorland 1.10
- Settled Valley Pastures 1.13
- Riverside Meadows 1.18

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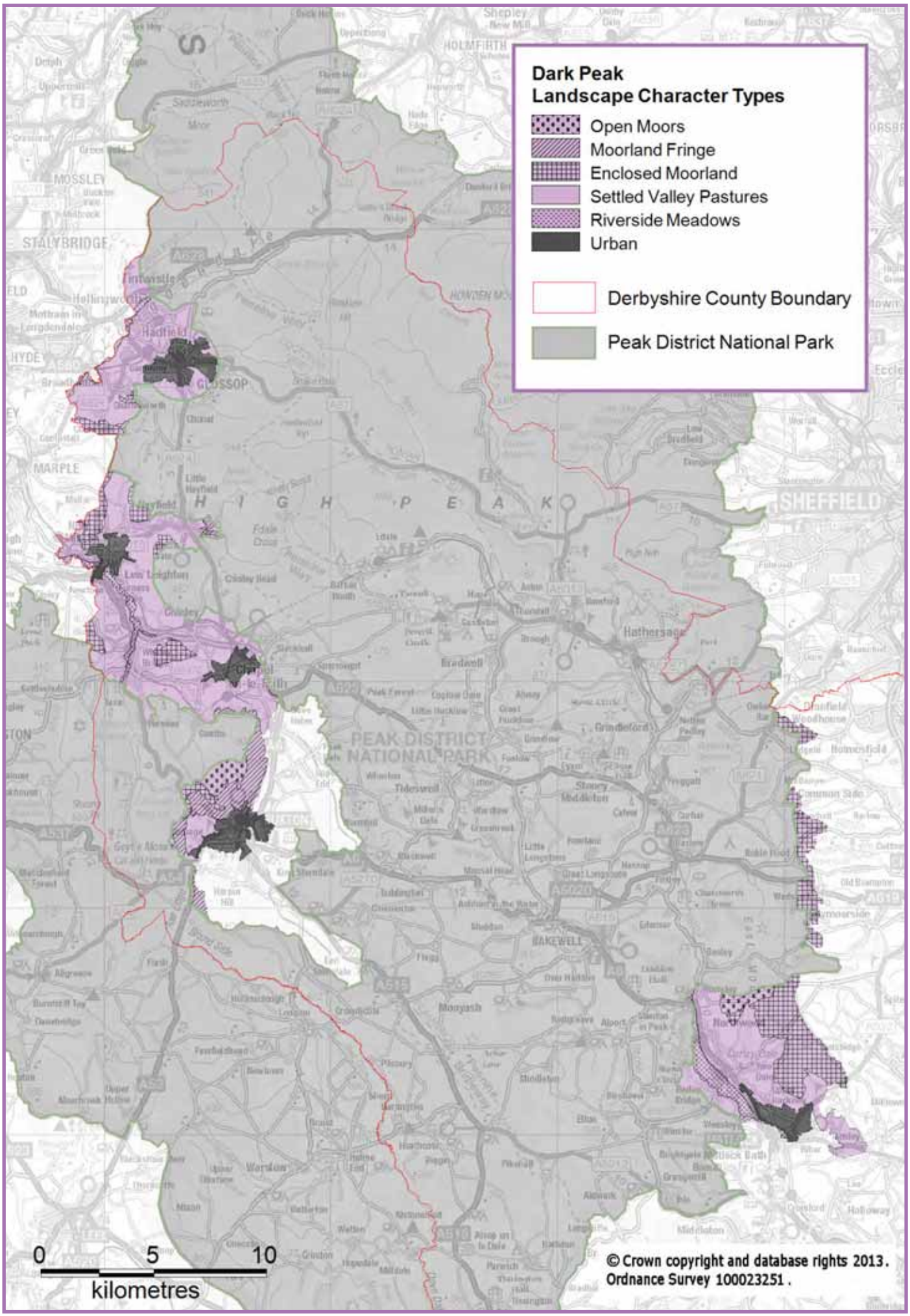
Dark Peak
Landscape Character Types
Open Moors
Moorland Fringe
Enclosed Moorland
Settled Valley Pastures
Riverside Meadows
Urban
Derbyshire County Boundary
Peak District National Park
0
5
10
kilometres
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Dark Peak

CHARACTER AREA 51

An upland landscape of high moors and settled valleys

Landscape Character Types

- Open Moors
- Moorland Fringe
- Enclosed Moorland
- Settled Valley Pastures
- Riverside Meadows

"Should you tire of the valleys and desire to breathe a larger air, the moors are never far distant - moors gloriously open and grand .... These are the real moors of heather and bracken which flame with brown and yellow and purple in the autumn."

(p8 JB Firth 'Highways and Byways in Derbyshire')

Introduction

The Dark Peak extends over a large area of north-west Derbyshire although much of it lies within the administrative boundaries of the Peak District National Park. In Derbyshire, the Dark Peak extends from Glossop and New Mills, in the north and west, to the urban fringes of Sheffield, in the east and as far south as Matlock. For the purposes of the Derbyshire Landscape Character Assessment, the Dark Peak character area also includes the small area of the South West Peak and Manchester Pennine Fringe character areas that lie within Derbyshire.

The expansive moorland of the Peak District is one of the most extensive semi-natural wilderness areas in England. Much of the moorland is traditionally managed for grouse shooting and sheep grazing. Hedgerows and dry-stone walls enclose the more sheltered valleys around these upland plateaux to provide pasture for dairy and livestock farming.

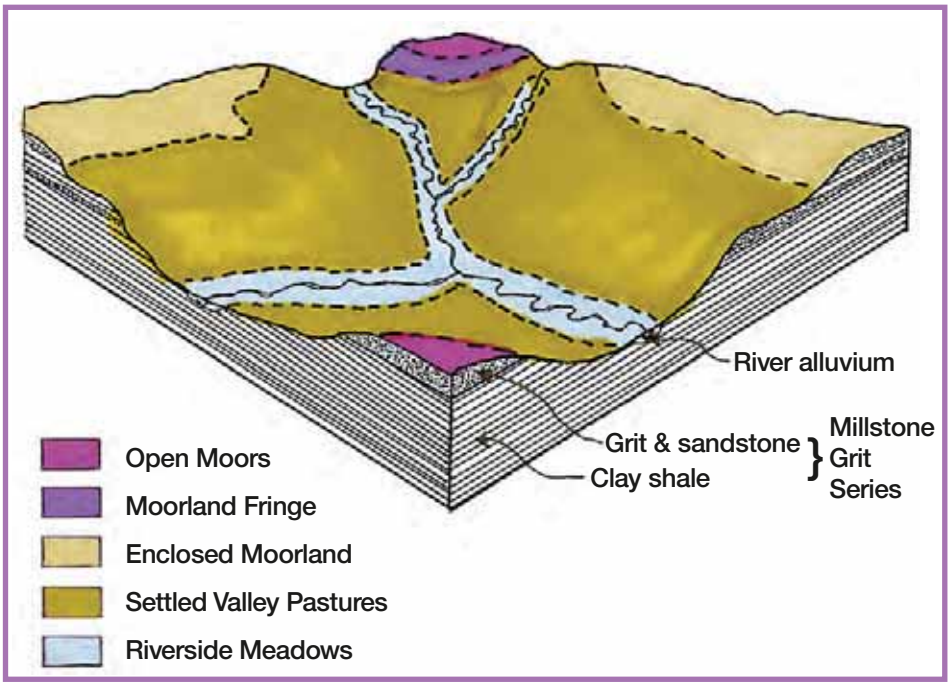
The visual and environmental value of this landscape lies in the contrast between the wild moorland and the small scale domesticated farmland within the in-bye land around the margins. These differences form the basis for the sub-division of the Dark Peak into Landscape Character Types.

Buildings constructed from the local 'gritstone' and dry-stone walls in the same material reinforce the character and provide a visual link to the underlying geology.

Physical Influences

The Dark Peak is a dramatic upland landscape that owes much of its character to the underlying geology of Millstone Grit sandstone. This hard 'gritstone' interspersed with softer shales has given rise to this distinctive landscape of 'high moors' dissected by broad valleys and narrow rocky 'cloughs'. Gritstone outcrops, creating rocky tors, punctuate these extensive areas of upland plateaux defining the *Open Moors*. Moorland tops provide long uninterrupted views with vertical cliff faces referred to as 'edges' regularly defining the *Moorland Fringe*. Collectively, these rocky outcrops add to the wild and exposed nature of this landscape.

The plateau tops, rising to 636m at Kinder Scout, are heavily dissected by drainage channels. Where run-off has been sufficient to create rivers like the Goyt and Derwent, these have eroded through the gritstone to form broad, often steep sided, upland valleys that have provided the focus for settlement and farming highlighted in *Settled Valley Pastures*. Sometimes scree and exposed rock located within these valleys provide a link to the wild moorland character above the valley sides.



Natural Influences

Semi-natural vegetation is a key characteristic with extensive areas of heather and grass moorland defining the *Open Moors* and making a significant contribution to *Moorland Fringe* and *Enclosed Moorland*.

The lower lying in-bye land associated with *Settled Valley Pastures* retains traditional hay meadows and unimproved pasture, and steep slopes and sheltered cloughs retain areas of semi-natural broadleaf woodland. Where boundaries are not maintained, woodlands are gradually being lost as stock graze on young trees and prevent natural regeneration. In recent years, grassland management has been intensified on the lower valley slopes and reduced towards the moorland, making the distinction between moorland and enclosed farmland less distinct, thus creating a gradual transition from one to the other.

All of these land-uses provide valuable habitats for wildlife. Heather moorland is a particularly rare national habitat providing a nesting site and food source for a number of rare birds. Broadleaf woodland remains a key characteristic of *Settled Valley Pastures* where along with field boundaries, meadows and pastures, it constitutes a mosaic of wildlife habitats.

Human Influences

Evidence of human activity on the Dark Peak dates from the Mesolithic period when hunter gatherers were attracted to even the highest moors, as indicated by finds of stone tools. The extent of settlement in the bronze age is dramatically illustrated by the surviving landscape on the East Moors. Here, because of the lack of agricultural improvement, remains of field systems, settlements and ritual monuments survive from the second millennium BC.

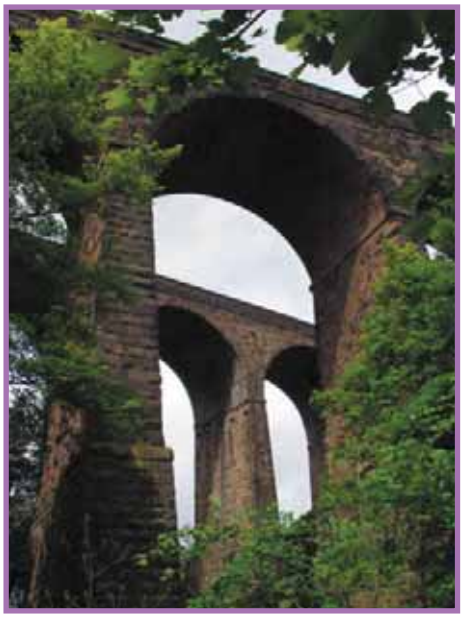
Much of the agricultural landscape seen today has developed over the last millennium. The Domesday Book describes the area as sparsely settled and economically backward. Much of the area was included in the Royal Forest of the Peak, and remained so until the 17th century. Although the *Open Moors* remain unsettled and free of man-made features, the lower lying margins of the *Moorland Fringe* and *Enclosed Moorlands* are characterised by scattered farmsteads built in the local gritstone. Villages are confined to the valley bottom and lower slopes of the *Settled Valley Pastures*, and often contain industrial terraces that once housed workers from the local textile industry.

Terrace houses

The industrial revolution saw the development of large textile mills in the *Riverside Meadows* and the associated expansion of settlements like New Mills.

Dry-stone walls, constructed of the local gritstone are a distinctive feature of the Dark Peak and especially the *Enclosed Moorlands*. Although walls extend into the valley bottoms, the lower slopes tend to be enclosed by hedgerows which, together with the small fields, create a more enclosed character in contrast to the open expanse of the moors. Where the stone is fissile it has been used for roofing.

Roads and tracks are infrequent throughout. They are generally direct and follow straight lines as they cross the *Open Moors* and *Enclosed Moorland*. Some were former Roman roads or historic packhorse routes. Roads, railway lines and even canals are more a feature of *Settled Valley Farmlands* and *Riverside Meadows*, taking advantage of the easier gradients and serving the local populations and industrial sites.



Railway bridges at Chapel-en-le-Frith

Roads extending up the valley sides are few but tend to occur as winding country lanes sometimes sunken, with steep narrow road verges. Remnant moorland in many road verges is a reminder of the character of the wider landscape. Even where the land either side has been agriculturally improved, these can provide valuable floristic remnants.

The *Open Moors* have been managed for grouse shooting and sheep grazing since the early 19th century. Periodic burning and regular grazing has ensured the retention of the characteristic land cover that is seen today.

Red Grouse

Other considerations

- Peak District National Park
- PDNP Landscape Strategy & European Convention Action Plan
- Peak District BAP

Dark Peak

LANDSCAPE TYPE: OPEN MOORS

An upland landscape of rolling highland plateaux and heather moorland with a distinct sense of remoteness and 'wildness'.

Key Characteristics

- Gently to moderately rolling highland plateau
- Raw peat soils and blanket bog over gritstone
- Unenclosed heather moorland extensively grazed by sheep
- Distinct absence of trees
- Many important archaeological (prehistoric) features
- Open and exposed landscape with expansive views

Geology and Landform

These moorland plateaux and hill summits are strongly influenced by the underlying geology of the Millstone Grit Series. The hard bedrock is difficult to erode, creating broad tracts of upstanding highland, rising to over 600 metres at Kinder Scout. The majority of this landscape extends northwards as a broad, expansive plateau, but around the edges where river valleys have eroded through the gritstone, there are outliers of moorland plateaux occurring as occasional summits.

The upstanding nature of this landscape creates a strong sense of elevation and space, with panoramic views over the surrounding countryside.

Soils and Land-Use

The soils are raw peat and blanket bog which infill the hollows of the underlying geology to create a smooth undulating land surface. The peat develops as a consequence of the cold, wet climate that inhibits microbial activity which decomposes organic matter. With time, the organic matter accumulates to create deep peat soils usually between 2-4m thick but sometimes as deep as 6m.

This landscape has low agricultural value being used predominantly for sheep grazing or grouse in an extensive farming system.

Ecology

Much of this landscape is covered by heather moorland comprising *Calluna*, cross-leaved heath, and bilberry. In the wettest areas, heather is replaced by cotton-grass and Sphagnum moss.

Where the moorland is grazed, some acid communities may establish. Over-grazing can be a problem often characterised by the presence of *Nardus stricta* grass. This is an important habitat for ground nesting birds.

Tree Cover

This is a treeless landscape owing to the elevation, the wetness of the underlying soils and the generally harsh climate that makes tree growth difficult. This lack of trees creates an open and exposed landscape with expansive views.

Enclosure

It is essentially an unenclosed landscape although on the more isolated moorland summits, there may be very occasional dry-stone walls dividing the landscape into very broad enclosures.

Transport

A key feature of these landscapes is their remoteness and inaccessibility. There is the very occasional main route crossing these moorland plateaux but, for the most part, access can only be gained on foot.

Built Environment

It is an unsettled landscape owing to the hostile climate and low agricultural value of the land. However, there may be evidence of prehistoric man in the presence of standing stones and ancient earthworks.

Summary

These hill summits and moorland plateaux are formed by hard upstanding Millstone Grit to form the most elevated landscapes in the county. Overlain by deep peat and blanket bog, this landscape is being used for extensive sheep grazing or grouse rearing.

It is a landscape characterised by extensive semi-natural vegetation in the form of heather moorland. The climate, soils and grazing ensure that no trees are able to grow, so the landscape retains an open aspect with expansive long distance views.

With little agricultural value, this is also an unsettled landscape, although there is evidence of early mans' existence through the presence of standing stones and prehistoric earthworks.

Planting and Management Guidelines

Open, rolling treeless landscape of heather moorland

Excluding the Peak District National Park

Primary woodland character:	Open/unwooded
Primary tree character:	Treeless
Woodland vision:	Open/unwooded
Tree vision:	Treeless

Dark Peak

LANDSCAPE TYPE: MOORLAND FRINGE

A semi-natural moorland landscape of rough grazing fringing the high moor plateaux with exposed rocky outcrops and open, expansive views.

Key Characteristics

- Moderate to steep upland slopes fringing the open moors
- Exposed rock and scree slopes associated with gritstone edges
- Shallow peaty soils
- Moorland slopes grazed by sheep
- Extensive semi-natural habitat of heather with rushes in damp hollows
- Distinct absence of trees
- Open, exposed landscape with expansive views

Geology and Landform

A landscape that is strongly influenced by the underlying Millstone Grit geology and defined by the steep upper slopes and edges that fringe the moorland plateaux. There are frequent outcrops of gritstone, most notable when it forms distinct edges with precipitous rock faces and scree slopes.

The resultant landform creates a strong sense of elevation and exposure, with long distance panoramic views over surrounding countryside.

Soils and Land-Use

The soils are coarse, loamy and very acidic over the upland gritstone, often having a wet peaty surface horizon. In the less steep hollows, shallow peaty soils can develop. Surface water drainage is often impeded by the formation of an iron pan.

Owing to its elevation and poor quality soils, this is a very marginal agricultural landscape, used primarily as rough grazing for sheep rearing. Where the slopes are less steep and soils can be improved, more productive grassland will result, provided adequate lime and fertiliser is applied. Much improved pasture has now been abandoned and is reverting back to semi-natural vegetation associated with moorland.

Ecology

A landscape with widespread patches of semi-natural vegetation either as heather moorland, with areas of *Calluna*, cross-leaved heath and bilberry, or acid grassland where *Nardus* and *Molinia* grasses are dominant. In abandoned pastures there are extensive patches of bracken and gorse.

Where the upper slopes form edges to the moorland, there are extensive amounts of bare rock and scree, which also act as valuable habitats.

Tree Cover

The wet soils, exposure and uncontrolled grazing associated with these upland slopes seriously restricts tree growth resulting in an essentially treeless landscape. However, there is the occasional small plantation block or scattered trees associated with a minor stream valley. These streamside trees, comprising oak, birch, hawthorn and goat willow, are often stubby or stunted. There is, however, something of an anomaly at Shire Hill, Glossop where a steep

sided knoll is extensively covered with a broadleaved woodland of oak and birch.

Enclosure

Visually, this landscape appears to be unenclosed although dry-stone walls enclose medium to large, regular fields. Many of these walls are neglected and in poor condition, no longer operating as stock-proof boundaries. Where pasture has been abandoned and heather is returning, the walls often blend with the form and colour of this moorland landscape.

Transport

A Key feature of these landscapes is their remoteness and inaccessibility. There is the very occasional main route crossing moorland slopes but, for the most part, access can only be gained on foot via a network of public footpaths and bridleways.

Built Environment

Large areas of this moorland fringe are unsettled although there is the occasional isolated farmstead constructed of the local gritstone, sometimes retaining a roof covering of stone slates.

Summary

A landscape associated with the upper slopes and edges of broad upland valleys defined by an underlying gritstone geology. The hard bedrock and steep slopes ensure that the soils are thin, freely draining and acidic in character. In some areas, the gritstone becomes so resistant to weathering that it forms distinct rocky edges and outcrops.

The altitude allied to the agriculturally poor soils ensure that this is a marginal landscape, grazed extensively by livestock, predominantly sheep. Enclosure tends to be on a large scale, creating a landscape of regular fields bounded by dry-stone walls. Farmsteads established at the time of enclosure, are sparsely scattered through the landscape, and are constructed in the local gritstone, sometimes retaining a roof covering of stone slates.

Extensive grazing by sheep, the thin soils and hostile climate have resulted in a largely treeless landscape apart from the occasional tree group planted as shelter for the scattered farmsteads. This is an open landscape with panoramic views.

Planting and Management Guidelines

A steeply sloping, upland landscape of rough grazing fringing the high moors with no trees.

Excluding the Peak District National Park

Primary woodland character:	Open/unwooded
Primary tree character:	Treeless
Woodland vision:	Open/unwooded
Tree vision:	Treeless

- Where opportunities arise, the removal of coniferous plantation woodland should be encouraged.

Dark Peak

LANDSCAPE TYPE: ENCLOSED MOORLAND

An open, upland-farming landscape on broad rolling hill summits with patches of remnant moorland. Dry-stone walls enclose regular fields and straight roads join occasional isolated farmsteads.

Key Characteristics

- Moderate to steeply sloping gritstone hills
- Gritstone outcrops on hill summits and steeper slopes
- Peaty, acidic soils
- Rough grazing and areas of damp pasture with patches of rushes
- Patches of heather, gorse and bilberry, especially where fields are reverting back to moorland
- Medium to large regular fields bounded by dry-stone walls
- Unwooded landscape other than occasional amenity trees around farmsteads
- Sparsely scattered gritstone farmsteads some with stone slate roofs
- Open landscape with expansive views

Geology and Landform

The underlying Millstone Grit strongly influences this upland landscape creating a series of gritstone hills. The gritstone is hard and difficult to erode, which creates these gently rolling hill summits or small upland plateaux. Exposed rock outcrops are frequent on the steepest slopes forming, in places, small gritstone edges. Some lower lying summits are overlain with drift from Palaeozoic sandstones and shales adding further to the subdued nature of the rolling plateaux.

Soils and Land-Use

The variable nature of the geology and landform gives rise to a diverse range of soil types, all characterised by their acidic, podsolic nature. At higher elevations, the soils are shallow and have a peaty surface layer. On steeper slopes, the soils are well-drained and loamy, whilst over drift and on gentler summits, they are slowly permeable, seasonally waterlogged and fine. All soils remain acidic where they are not limed.

The resultant land-use is low quality pasture for stock rearing on wet moorland. Where pasture has been improved or on free-draining soils then some dairying occurs, although in many areas during the winter there is a high risk of poaching.

Ecology

A landscape with widespread patches of semi-natural vegetation, either as heather moorland, with areas of *Calluna*, cross-leaved heath and bilberry, or acid grassland where *Nardus* and *Molinia* grasses are dominant. Where pasture has been improved through liming and fertiliser applications, then habitat value is low or confined to field margins and road verges. There are also patches of gorse and bracken on steeper, free-draining slopes.

Where drainage is impeded and soils are slowly permeable, then patches of rush pasture with *Juncus* are locally frequent. At higher elevations and associated with steeper slopes, bare rock is common, providing another valuable habitat. This is an important landscape for ground nesting birds.

Tree Cover

The wet soils, exposure and sheep grazing associated with these upland hills and plateaux, seriously restrict tree growth so this is essentially a treeless landscape. However, there is the occasional small plantation block or tree group in association with occasional isolated farmsteads.

Enclosure

Dry-stone walls constructed from the local gritstone enclose large regular fields. Many of these walls are straight and, together with the regular shaped fields, reflect the relatively late enclosure of this landscape from moorland. Place names like Matley Moor and Matlock Moor reflect the former land cover of these areas.

Transport

The roads are straight and direct, having uniform width verges, again reflecting the late enclosure of this landscape. They connect the sparsely scattered farmsteads established at the time of enclosure.

Straight road

Built Environment

The settlement pattern is dispersed with farmsteads sparsely scattered through the landscape. These are traditionally constructed from the local gritstone with stone slate and Staffordshire blue clay tile roofs.

Summary

An open, upland farming landscape of broad rolling hill summits, formed by upstanding sandstone of the Millstone Grit Series. All the soils are free-draining, coarse loams but, where they are thinnest or under remnant semi-natural vegetation, they become impoverished, acidic and humic.

The present land-use is pastoral although, until the award of parliamentary enclosure, these areas would have been essentially semi-natural. Heather and bilberry would have been prevalent, although the moorland character is evidenced today with sporadic occurrences of gorse and bracken. Where marginal fields have been abandoned, these have quickly reverted back to moor and heath with birch scrub.

Individual sandstone farmsteads are scattered and would have followed the parliamentary enclosure of these areas. This late enclosure is characterised by regular and geometric shaped fields bounded by dry-stone walls. The moorland summits are inherently unwooded and trees are scarce other than those planted around farms for shelter and the occasional patch of colonising birch scrub. This creates an open landscape with expansive views.

The majority of roads are straight with fairly wide uniform width verges and would have been established at the time of parliamentary enclosures. The road verges now function as remnant habitats for many of the semi-natural heathland species.

Planting and Management Guidelines

An open, unwooded landscape on broad, rolling hill summits punctuated by occasional small tree groups around farmsteads.

Excluding the Peak District National Park

Primary woodland character:	Open/unwooded
Primary tree character:	Localised amenity tree groups
Woodland vision:	Open/unwooded
Tree vision:	Localised amenity tree groups

- Conserve and enhance the tree groups that occur within and around rural settlements and isolated farmsteads.
- Maintain open character.

Note
At Matlock Moor, there has been large scale afforestation of the landscape by the Forestry Commission to create extensive commercial woodland. Today, local people value this landscape as a recreational resource for walking, cycling and nature conservation. A defining characteristic of Enclosed Moorland is its open and unwooded character. It would be unrealistic and undesirable to remove these large plantation woodlands. However, their visual and biodiversity value could be enhanced by allowing oak, birch and moorland species to develop around the edges as a link and in keeping with their moorland context.

Woodland Species Mix

‡ **Amenity trees** - appropriate tree species for planting as amenity trees associated with settlement should include locally occurring large woodland species, e.g. Sessile Oak *(Quercus petraea)*, Pedunculate Oak *(Quercus robur)*, and Ash *(Fraxinus excelsior)*.

Dark Peak

LANDSCAPE TYPE: SETTLED VALLEY PASTURES

A settled, pastoral farming landscape on gently sloping lower valley sides, dissected by stream valleys. Dense watercourse trees, scattered boundary trees and tree groups around settlement contribute to a strongly wooded character.

Key Characteristics

- Moderate to steep lower valley slopes dissected by stream valleys
- Poorly draining soils over Carboniferous shale and sandstone
- Pastoral farming with extensive improved pasture
- Bracken in some road verges and rushes associated with damp hollows
- Wooded character associated with tree belts along streams and cloughs, scattered hedgerow trees and tree groups around settlement and farmsteads
- Small irregular fields enclosed by mixed species hedgerows and occasional dry-stone walls
- Network of winding lanes with irregular verges, sometimes sunken on steeper slopes
- Settled landscape of small nucleated settlements and scattered stone farmsteads with stone slate roofs
- Stone terraced housing on lower slopes associated with historic mills
- Enclosed landscape with views filtered by trees

Geology and Landform

A landscape strongly influenced by the underlying geology and defined by the steep to gently sloping lower valley sides of broad upland valleys. Where rivers have eroded through the Millstone Grit they have exposed the underlying shale to create these undulating lower valley slopes. Further variation is created by small stream valleys, which dissect the main valley as they drain the surrounding high moors.

Soils and Land-Use

The nature of the underlying geology ensures there is variation in the soils. On the lower, less steep slopes, over shale, the soils are slowly permeable, seasonally waterlogged and loamy, over clay. On the steeper slopes over gritstone, there are coarser loams over rock, or finer loams over slowly permeable subsoil.

The traditional land-use on these soils is stock rearing and dairying with much of the land down to permanent pasture. Grass yield potential is good although there is the risk of poaching on the heavier lower lying soils during wet periods. Some of the steeper, upper slopes over gritstone are less intensively grazed and a coarser, more acidic grassland predominates.

Ecology

Much of this landscape is intensively farmed as permanent pasture and improved grassland, and leys have little floristic interest. However, there are some very occasional species-rich hay meadows. Where drainage is impeded or the soils are slowly permeable, patches of wet grassland with *Juncus* are frequent. On the upper slopes over gritstone, there may be localised patches of acid grassland dominated by *Nardus* and wavy hair grass.

Where the soils are thinner and free-draining, particularly associated with steep slopes and road verges, heathy plants like bracken, heather and bilberry are locally common.

A network of stream valleys dissecting the main valley sides assist in connecting these patches of habitat in the farmed landscape, which is reinforced by the hedgerow boundaries. These river corridors have dense tree belts and the occasional patch of alder carr. Many of the stream courses have associated ponds and mill ponds that function as important habitats for amphibians. Those that have silted up have now reverted to alder carr.

Several springs and soughs provide wet marshy conditions and lateral water flows, which support isolated patches of species-rich marsh.

Tree Cover

Trees are well represented throughout to give the overall effect of a strongly wooded landscape. Dense tree belts, sometimes wide enough to form woodland bands, occur along narrow, tributary stream valleys dissecting the main valley sides. These combine visually with the scattered trees in the hedgerows to filter the views. Small groups of amenity trees are also found associated with settlement and particularly with dispersed farmsteads. Small remnants of ancient woodland persist and these contribute further to the wooded character.

Bluebell woods

At higher elevations, trees are less apparent due in part to the exposure and poorer soils, giving way to a more open moorland landscape. Tree species tend to be broadleaved and pre-dominantly oak and ash. Sycamore is often associated with transport routes, and alder along the watercourses.

Enclosure

A landscape of small, irregular fields enclosed predominantly by hedgerows, although there are occasional and locally frequent walls especially on higher ground. Hedgerows tend to be a mix of species, including holly, hawthorn, hazel and blackthorn. Their species composition suggests that the fields may have been cleared directly from woodland, and that the woodland trees and shrubs were retained to form the hedgerows.

Transport

There is a dense network of winding lanes, with irregular width verges. Sunken lanes are a feature on sloping ground, though they avoid the very steepest slopes. There are also green lanes, some that run just to isolated farmsteads, together with footpaths linking settlements.

Much of this landscape has been utilised as transport corridors with major roads and railways taking advantage of the gentler lower valley slopes. This is particularly notable where the A6 trunk road and railway runs between Whaley Bridge and Disley.

Built Environment

A well settled landscape containing towns, villages, small groups of cottages, and scattered farmsteads. Most traditional buildings are constructed of the local gritstone with Welsh slate and some surviving stone slate roofs.

Much of the build environment has a distinctive architecture relating to the building tradition of the Manchester area and to its industrial heritage, particularly the textile industry.

Old industrial mills near Chinley

Many settlements like Chapel-en-le-Frith, Whaley Bridge and New Mills, have spread out along lower valley slopes and owe their origin to the harnessing of water power and their expansion to the industrial age. Terraces of weavers' cottages, some with sloping roof lines, and later Victorian terraces are a characteristic feature of the valley sides.

Stone terrace houses

Summary

This is an upland landscape associated with the lower slopes of broad upland valleys formed by rivers eroding through the Millstone Grit to expose the shale beneath. Tributary valleys that dissect the main valley sides to create an undulating landform provide further interest.

This is a well settled landscape taking advantage of the natural shelter offered by the lower valley sides, the better agricultural soils and the good communications. There are discrete settlements like Whaley Bridge and Chapel-en-le-Firth, small groups of cottages and industrial terraces, and scattered farmsteads. There is a dense network of lands connecting the villages with the dispersed farmsteads, with main roads and railway lines hugging the lower slopes immediately off the flood plain.

Trees are well represented throughout giving the overall impression of a well-wooded landscape. Many of the tributary valleys feeding the main valleys form wooded cloughs, some of ancient origin, and these woodland belts are supplemented by scattered hedgerow trees, amenity tree groups associated with settlement and secondary woodland along roads and railway lines. Many of the woodlands have an irregular outline reflecting the irregular field patterns and winding lanes.

This is a pastoral landscape and many of the fields are down to permanent improved pasture. However, with altitude, the grazing becomes less intensive and the pasture tends to be unimproved and, therefore, of greater importance ecologically.

Planting and Management Guidelines

A well-wooded pastoral landscape of small organic woodlands, occasionally of ancient origin, with densely scattered hedgerow and watercourse trees.

Excluding the Peak District National Park

Primary woodland character:	Densely scattered small woodlands
Primary tree character:	Densely scattered hedgerow and dense watercourse trees
Woodland vision:	Widespread small-medium woodlands
Tree vision:	Densely scattered hedgerow and dense watercourse trees

Typical woodland size range:	0.5 - 15ha	small-medium
Woodland pattern:	Organic	

- Small-medium scale woodland planting.
- Where opportunities arise, the removal of coniferous plantation woodland should be encouraged.
- Conserve and restore all ancient woodland sites and restock with locally occurring native species.
- Promote linked extensions to ancient woodland by natural regeneration and planting.
- Ensure the use of indigenous tree and shrub species, including a proportion of large, long-lived species.
- Ensure the management and enhancement of hedgerow trees, through selection and natural regeneration, or by planting.
- Encourage the management of scrub and secondary woodland to link with existing habitats and woodland.
- Enhance the visual and ecological continuity of river corridors by management, natural regeneration and planting of riparian trees.
- Ensure the conservation and management of mature/veteran trees within hedgerows.

Dark Peak

LANDSCAPE TYPE: SETTLED VALLEY PASTURES

Woodland Species Mix

Neutral/ Base-Rich Soils

Primary Tree Species 50%

Betula pendula	Silver Birch
Betula pubescens	Downy Birch
Quercus petraea	Sessile Oak
Quercus robur	Pedunculate Oak

Secondary Tree Species 20%

Major

Fraxinus excelsior	Ash
Ilex aquifolium	Holly

Minor

Malus sylvestris	Crab Apple
Prunus padus	Bird Cherry
Sorbus aucuparia	Rowan

Shrubs 10-30%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn

Minor

Lonicera Periclymenum	Honeysuckle

Open space 0-20%

More Acidic Soils

Primary Tree Species 50%

Betula pendula	*Silver Birch*
Betula pubescens	Downy Birch
Quercus petraea	Sessile Oak
Quercus robur	Pedunculate Oak

Secondary Tree Species 20%

Major

Ilex aquifolium	Holly
Sorbus aucuparia	Rowan
Populus tremula	Aspen

Shrubs 10-30%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn

Open space 0-20%

Waterlogged Conditions on all soil types

Primary Tree Species 50%

† *Alnus glutinosa*	Alder
Betula pubescens	Downy Birch
Salix caprea	Goat Willow
Salix fragilis	Crack Willow

Secondary Tree Species 20%

Major

Betula pendula	Silver Birch
Ilex aquifolium	Holly

Minor

Quercus petraea	Sessile Oak
Quercus robur	Pedunculate Oak
Tilia cordata	Small Leaved Lime

Shrubs 10-30%

Major

Crataegus monogyna	Hawthorn
Salix aurita	Eared Willow
Salix cinerea	Grey Willow

Minor

Prunus spinosa	Blackthorn
Rosa canina	Dog Rose
Viburnum opulus	Guelder Rose

Open space 0-20%

† Watercourse Trees - tree species most appropriate for planting as watercourse trees.

Hedgerow Species Mix

Suitable hedgerow plants

Primary 70-75%

Crataegus monogyna	Hawthorn

Secondary 25-30%

Corylus avellana	Hazel
Ilex aquifolium	Holly
Prunus spinosa	Blackthorn

Suitable hedgerow trees

Primary 70-75%

Fraxinus excelsior	Ash
Quercus petraea	Sessile Oak
Quercus robur	Pedunculate Oak

Secondary 25-30%

Acer campestre	Field Maple
Tilia cordata	Small Leaved Lime
Tilia platyphyllos	Large Leaved Lime

Occasional 0-5%*

Malus sylvestris	Crab Apple
Prunus padus	Bird Cherry
Sorbus aucuparia	Rowan
Ulmus glabra	Wych Elm

* only to be used if occurring locally within the landscape character type

Dark Peak

LANDSCAPE TYPE: RIVERSIDE MEADOWS

Gentle valley floors contain upland rivers, lined with dense trees. Hedgerows enclose small, sub-regular fields in a pastoral landscape, interrupted by the occasional historic mill.

Key Characteristics

- Gentle valley floors, with narrow flood plains containing meandering rivers
- Seasonally waterlogged soils over alluvium
- Low intensity permanent pasture
- Localised patches of rushes in damp hollows
- Dense trees along watercourse, comprising of alder and willow
- Scattered boundary trees
- Small, sub-regular fields enclosed by hedgerows and dry-stone walls
- Lanes along edges or crossing flood plains with gritstone bridges over the rivers
- Industrial heritage associated with gritstone mills powered by water
- Strong sense of enclosure from adjacent slopes

Geology and Landform

The flat base of the valley is upon alluvium, formed when the river floods, slows down and deposits the sediments it carries. At the edge of the valley base, there are gentle slopes. They are underlain by Carboniferous shales and unconsolidated material deposited by weathering and downslope movement of material from the valley sides.

The underlying sediment on the flood plain consists of alluvial mud lying over gravels. The gravel acts as an aquifer, carrying water from the adjoining land into the river and so is permanently waterlogged. The flood plain is generally flat in profile, with a gentle gradient downstream. There are hollows in the flood plain reflecting the past course of the river. Along the river margins, there are often noticeable banks called levees. These form due to the deposition of sediment as flood waters wane and return to the river channel.

Soils and Land-Use

The soils are clayey loams, which are seasonally waterlogged.

Some areas are permanently waterlogged and some wet hollows retain flood water long after the majority of the floods have subsided. The traditional land-use is permanent grassland due to the heavy waterlogged nature of the soils and harsh climate.

Ecology

The wet meadows, found in hollows in the flood plain, remain partly flooded for much of the year. They support a marshy vegetation with rushes and are important remnants of a diminishing habitat type. Riparian trees add to the ecological value, particularly where there are patches of willow carr.

Further habitat diversity is provided by bands of scrub and secondary woodland that are colonising abandoned pasture.

Tree Cover

There are lines of scattered alder and willow along the banks of the

river including the occasional patch of willow carr.

Trees lining River Derwent

There are also occasional mature trees along field boundaries. These are principally oak and ash.

The tree cover is greatly intensified by the secondary woodland and scrub associated with abandoned and neglected pasture. Tree cover, together with the valley landform, creates a small scale enclosed landscape.

Enclosure

The valleys are fringed on either side of the main rivers by a band of one or two fields, with fairly straight boundaries. The fields are enclosed by thorn hedgerows and dry-stone walls.

Transport

The gentle valley bottoms contrast with the steep slopes of adjacent landscape types and form the obvious route for transport corridors. Lanes are not numerous but, where they occur, they tend to run along the edge of the flood plain, raised up on embankments to reduce the risk of flooding. Occasionally, roads cross the rivers over gritstone bridges.

Built Environment

Historically, there would have been little built development on the flood plain. Farmsteads would have occupied the higher ground to the edge of the valley, where the risk of flooding was less. However, scattered throughout this landscape are water-powered gritstone mills and a few later steam-powered mills, often constructed of red brick with prominent chimneys.

Corn Mill at Rowsley

Summary

Fast flowing meandering rivers dissect Carboniferous sandstones and shales to form gentle valley floors with narrow flood plains. The soils are heavy clay loams prone to prolonged seasonal waterlogging.

These soils have traditionally supported meadowlands grazed by cattle. Fields tend to be medium sized enclosed by a mix of dry-stone walls and thorn hedgerows. Boundaries tend to be straight, although the edge of the flood plain is often sinuous.

Within the flood plain there are occasional mature hedgerow trees, predominantly oak and ash, with scattered trees, usually alder, along the river banks. The river corridor has a strong sense of enclosure created by the steep valley sides and extensive secondary woodland.

Due to the risk of flooding, this landscape would have been unsettled, with farmsteads being located on the valley sides. The valleys were transformed during the industrial revolution when industrialists built large mills to harness the power of the water. Some mills with associated weirs and pools remain today, converted to new uses.

Lanes are scarce and tend to cut across the flood plain but there are major roads and railway lines located at the edges, often on embankments.

LANDSCAPE TYPE: RIVERSIDE MEADOWS

Planting and Management Guidelines

An open flood plain with dense watercourse trees.

Excluding the Peak District National Park

Primary woodland character:	Unwooded
Primary tree character:	Dense watercourse trees
Woodland vision:	Occasional small wet woodlands
Tree vision:	Dense watercourse trees

Typical woodland size range:	0.5 - 5ha	small
Woodland pattern:	Organic/linear	

- Ensure the use of indigenous tree and shrub species, including a proportion of large, long-lived species.
- Ensure a balance is maintained between new woodland planting and areas of nature conservation value.
- Enhance the visual and ecological continuity of river corridors by management, natural regeneration and planting of riparian trees.

LANDSCAPE TYPE: RIVERSIDE MEADOWS

Woodland Species Mix

Waterlogged Conditions
on all soil types

Primary Tree Species 50%

† *Alnus glutinosa*	Alder
Betula pubescens	Downy Birch
† *Salix caprea*	Goat Willow
† *Salix fragilis*	Crack Willow

Secondary Tree Species 20%

Major

Betula pendula	Silver Birch
Ilex aquifolium	Holly

Minor

Quercus petraea	Sessile Oak
Quercus robur	Pedunculate Oak
Tilia cordata	Small Leaved Lime

Shrubs 10-30%

Major

Crataegus monogyna	Hawthorn
Salix aurita	Eared Willow
Salix cinerea	Grey Willow

Minor

Prunus spinosa	Blackthorn
Rosa canina	Dog Rose
Viburnum opulus	Guelder Rose

Open space 0-20%

† **Watercourse Trees** - tree species most appropriate for planting as watercourse trees.

Hedgerow Species Mix

Suitable hedgerow plants

Primary 70-75%

Crataegus monogyna	Hawthorn

Secondary 25-30%

Corylus avellana	Hazel

Suitable hedgerow trees

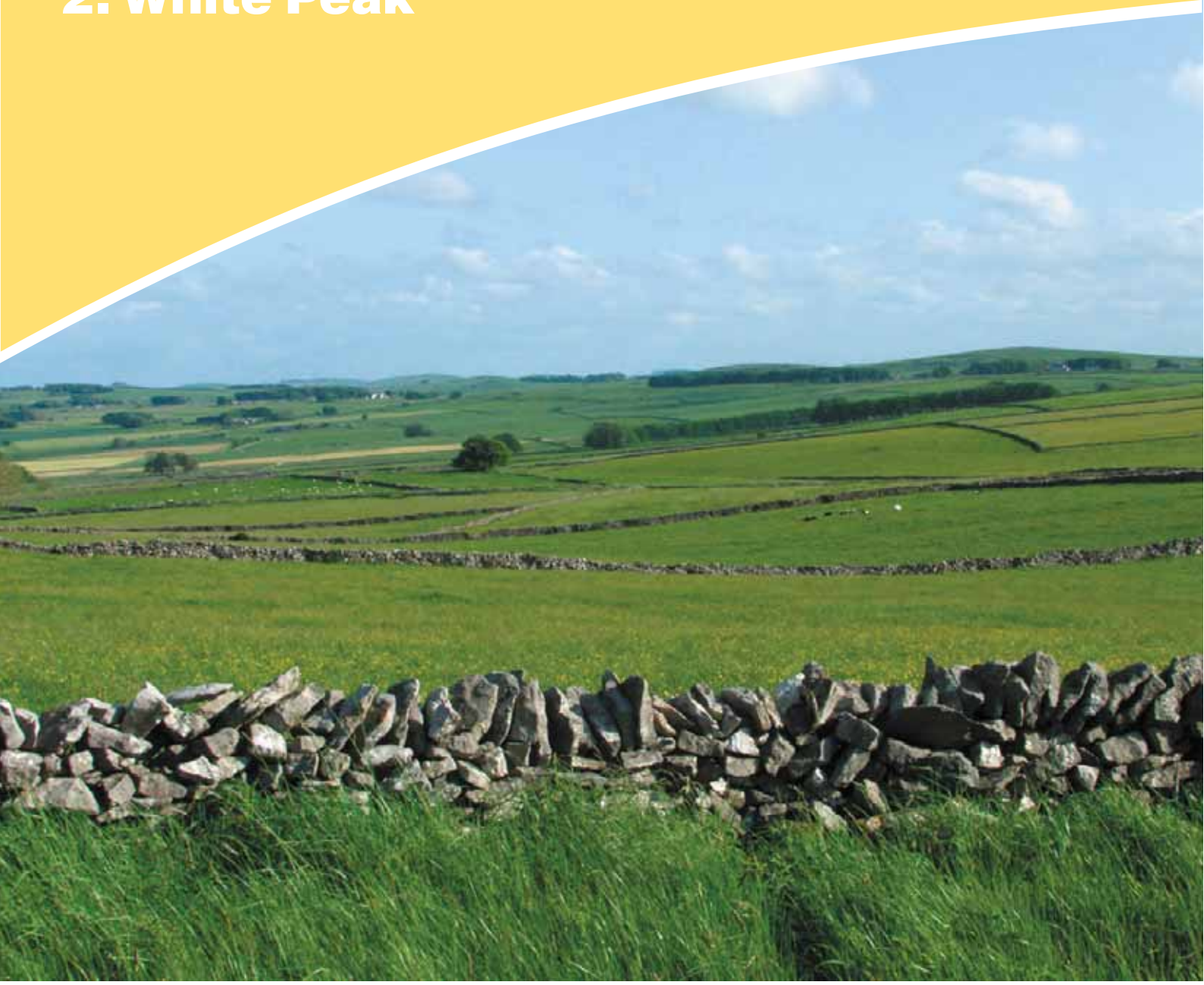
Primary 70-75%

Fraxinus excelsior	Ash
Quercus petraea	Sessile Oak
Quercus robur	Pedunculate Oak

Secondary 25-30%

Acer campestre	Field Maple

2. White Peak



Landscape Character Types

- Plateau Pastures 2.5
- Upland Limestone Pastures ... 2.10
- Limestone Slopes 2.13
- Limestone Dales 2.17

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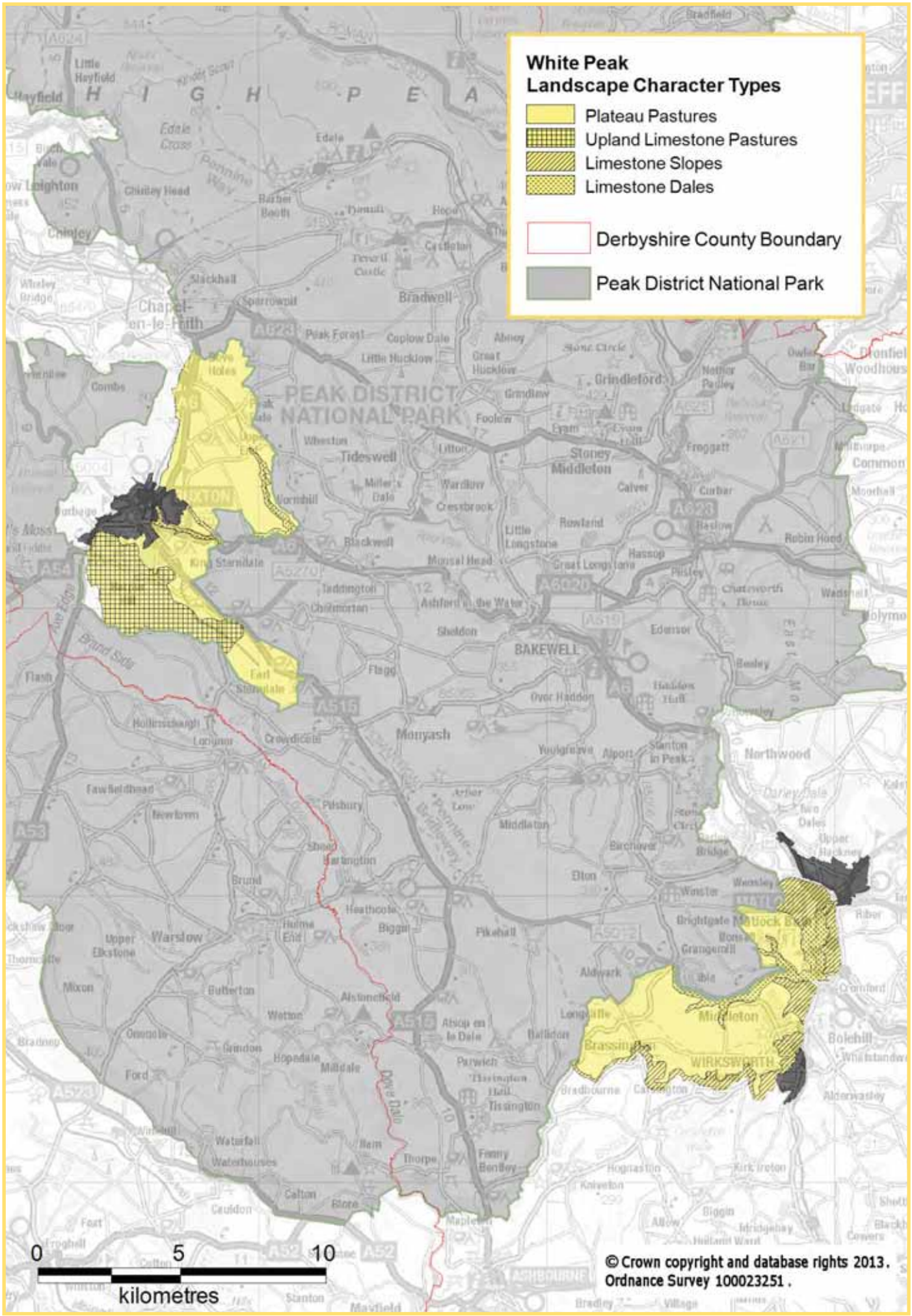
White Peak
Landscape Character Types
Plateau Pastures
Upland Limestone Pastures
Limestone Slopes
Limestone Dales
Derbyshire County Boundary
Peak District National Park
PEAK DISTRICT NATIONAL PARK
BAKEWELL
Bradwell
Tideswell
Grindleford
Stoney Middleton
Monyash
Warslow
Middleton
WIRKSWORTH
0
5
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kilometres
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Ordnance Survey 100023251 .

White Peak

CHARACTER AREA 52

A gently rolling upland, limestone plateau punctuated by steep sided dales, scattered villages and isolated farmsteads within a pastoral setting.

Landscape Character Types

- Plateau Pastures
- Upland Limestone Pastures
- Limestone Slopes
- Limestone Dales

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

DH Lawrence 'The Virgin and the Gypsy'

Introduction

The White Peak character area is located in the west of the county, most is within the Peak District National Park. It stretches from Castleton in the north, to Wirksworth in the south. An upland landscape, comprising a limestone plateau and deep limestone dales, it includes the spa towns of Matlock Bath in the east and Buxton in the west. It strongly contrasts with the adjacent gritstone landscape of the Dark Peak to the north and west, whilst the transition to the Peak Fringe in the south is more gradual.

Physical Influences

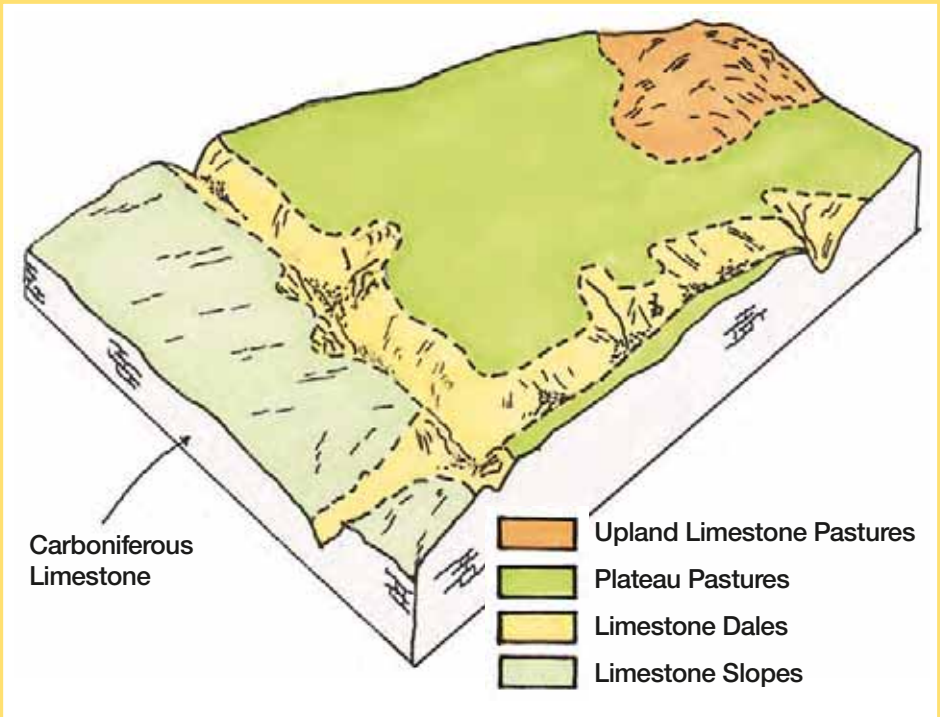
The White Peak is strongly influenced by the weathering and erosion of the underlying Carboniferous Limestone, formed 350 million years ago by the deposition of calcium carbonate - rich skeletal remains upon the seabed. Hydrothermal veins associated with volcanic activity left vast mineral deposits of galena (lead ore), fluorspar, calcite, copper and barytes which run through the bedrock.

The majority of the limestone plateau has deposits of silty, wind-blown drift (brown stoneless silts) over the limestone bedrock. These mask the influence of the limestone at the soil surface giving rise to neutral or acidic soils. These soils are well-drained, dark brown silt-loams farmed as pasture and rough grazing. The soils of the upper plateau tend to have deeper deposits. Here the drift has formed a matrix with the course, resistant silica residues of weathered limestone. The soils formed are naturally coarse, thin peaty soils. These soils support rough grassland or a mosaic of heathland shrubs.

Glacial meltwaters and large streams dissecting the soft bedrock were responsible for the creation of the *Limestone Dales*. The erosion of the limestone occurred above and below ground with water finding its way into faults and fissures, creating caves and caverns. Over time these would collapse to form steep sided slopes of exposed stone. Some dales still have rivers and streams meandering through them, but others are seasonal or dry at the surface, the water passing through a series of underground cave systems. Today, the dry dales maintain a character similar to that of the wet dales.

Natural Influences

The White Peak is significant in Britain, as the junction between southern and northern species of



plants and animals. Variations in landform, soil and a diverse history of agricultural improvements have produced a broad range of wildlife habitats and associated species, many of which are of national and international importance.

The main habits on the plateau today are grasslands associated with dairy farming and rough grazing. Unimproved, species-rich, hay meadow and pasture are of greater value for wildlife but have declined dramatically due to agricultural intensification. The majority of grassland is improved for grazing and silage or haylage production. Occasional flower rich meadows and calcareous grasslands can be found in the *Plateau Pastures* but are more commonly restricted to the *Limestone Dales* and roadside verges.

Ancient semi-natural woodland is a feature of the *Limestone Dales* but does not generally occur elsewhere within the area. Defined by irregular outlines and a mixture of broadleaved tree species, predominantly ash, they are associated with the steepest valley sides. Overall, tree cover is a strong feature of the dales. The *Plateau Pastures* are not densely wooded; it is an open landscape with expansive views. Small plantations, shelter belts and localised tree groups around settlements, made up of usually sycamore or beech, are a distinctive feature.

Following early forest clearance and the leaching of lime, the naturally alkaline soils became acidic and supported heathland species, which became dominant by the sixteenth century. The remaining heathland is very small and fragmented, mainly occurring on uncultivated land, like road verges and railway embankments.

Wetland habitats are generally confined to the *Limestone Dales*. The rivers of the dales are of high water quality and are therefore valuable to wildlife. The permeable nature of limestone and the upland topography means the plateau has no significant wetland habitat. Dew ponds or 'meres', are an exception. They were constructed on the plateau as watering holes for cattle by lining a hole with clay and sand. These ponds are valuable for some aquatic species and amphibians such as freshwater snails and newts, as well as being distinctive landscape features.

Human Influences

The White Peak has been a focus of settlement since early prehistoric times and numerous surviving monuments indicate the extent of settlement and use of the landscape. These include Neolithic henge monuments like the Bull Ring at Dove Holes. Bronze Age round barrows survive in numbers on the crests of hills and late prehistoric and Romano-British settlements and field systems like Rainster Rocks, Brassington also survive, as do rare examples of burial mounds of Anglo-Saxon date.

Field patterns within the White Peak are not as diverse as those in surrounding character areas, largely as a result of a relatively simple topography. The characteristic dry-stone walls, constructed from local limestone, dominate the landscape. Isolated stone barns were often incorporated within the stone walls, forming a distinctive feature of the area, although many have become derelict.

The strip fields around villages are a distinctive feature of the *Plateau Pastures* and *Limestone Slopes*. They indicate the piecemeal enclosure of an earlier open field system. Later, private or parliamentary field enclosure of former wastes and commons is well represented throughout the area, particularly within *Plateau Pastures* and *Upland Limestone Pasture*. In these areas, the field patterns are typically regular in shape, of medium to large size, dissected by straight roads. The field walls have been built using quarried stone and are neater in appearance than the random rubble walls of earlier periods.

The *Limestone Dales* are largely unenclosed due to the inaccessible nature of the steeper slopes. Stone walls are occasionally found cutting across the valleys, but many of these are now falling into disrepair.

Open expansive view across the limestone plateau

The limestone has been exploited on a small scale for hundreds of years but large scale quarrying has occurred in more recent times. Modern quarries have had a major visual impact on the landscape, leaving large voids that can be seen for miles across the open plateau. Other naturally occurring minerals, running in veins through the limestone, have also been exploited. Lead ore has been mined from Roman times to the early 20th century and, at times, brought significant wealth to the area. Although lead mining is no longer a major industry, the evidence of past workings are still present and are especially associated with the *Plateau Pastures*.

The White Peak is not a densely settled landscape. There are nucleated villages within *Plateau Pastures* and *Limestone Slopes*, many originating in Saxon and medieval times, usually connected by straight enclosure roads. The traditional building material is random rubble local limestone with roofs of stone slates brought from the Dark Peak area.

These limestone villages are a key characteristic of the area. Outside the villages, isolated farmsteads occur, again constructed of the local limestone with stone tile or slate roofs. The *Limestone Dales* remained largely unsettled due to their topographical inaccessibility.

Within villages, lanes are characteristically narrow and winding, often with variable width verges reflecting the undulating nature of the surrounding landscape. Between the settlements there is a network of straighter, more direct roads. Modern transport links, such as the A6, and railway lines utilise the valleys of the *Limestone Dales*, as components of routes through the county.

A very good example of the way this landscape has been overlain by successive periods and types of man's activity may be seen around Rainster Rocks, north-west of Brassington. Here the earthwork remains of a Romano-British settlement lie adjacent to extensive medieval ridge and furrow which, in turn, are overlain by the remains of lead mining and the field walls of 19th century enclosures.

Other Considerations

- Peak District National Park
- PDNP Landscape Strategy & European Landscape Convention Action Plan
- Peak District BAP

White Peak

LANDSCAPE TYPE: PLATEAU PASTURES

A gently rolling, upland limestone plateau characterised by nucleated limestone villages, dry-stone walls, a pastoral land-use and open, expansive views.

Key Characteristics

- A gently rolling upland plateau
- Limestone outcrops on hill summits and steeper slopes
- Fine, silty brown soils over Carboniferous Limestone
- Stock rearing on improved pasture
- Small shelter blocks of plantation woodland and tree groups around villages and farmsteads
- Medium to large regular fields enclosed by dry-stone walls with narrow strip fields around settlements
- Straight roads with uniform verges
- Nucleated limestone villages and isolated limestone farmsteads with slate roofs
- Small isolated field barns
- Small pits and hummocks in areas of historic lead mining
- Open landscape with expansive views

Geology and Landform

The underlying Carboniferous Limestone strongly influences this landscape creating a broad upland plateau. The limestone bedrock is hard and slowly eroded, giving rise to a moderately rolling landform of numerous minor hill summits with exposed rock. Large areas of limestone were subsequently overlain with a variable thickness of Aeolian drift adding to the subdued nature of this rolling plateau and masking the influence of the limestone on soil and vegetation.

Soils and Land-Use

The soils are well-drained, fine, silty brown earths over a free-draining bedrock and Aeolian drift. These are characteristically shallow to moderately deep, being shallowest on the steeper slopes and hillcrests. Deeper soils tend to be associated with deeper accumulations of drift. Any calcareous influence from the underlying geology is counteracted by the high elevation of this plateau, where high annual rainfall is common, leaching occurs and soils are naturally acid.

Pasture, and particularly dairying, is the dominant land-use in this landscape. Most of the fields have been ploughed and reseeded to improve the pasture. Some unimproved grassland is still found where the ground is unsuitable for cultivation such as on the more exposed crests and steeper slopes where soils are thin and often grazed by sheep.

Ecology

Prior to enclosure, these landscapes would have been covered with semi-natural, neutral grassland, with calcareous grassland and some scrub on the steeper, thinner soils. However, since enclosure, much of the ecological value has diminished with remnant habitats now confined to the more marginal hillcrests and slopes where exposed rock is prevalent. Very occasional patches of unimproved pasture may still be encountered in less intensively farmed areas and on the verges of green lanes and trackways. There is little floristic interest in the improved grassland that exists today.

Where vein minerals, and particularly lead, outcrop at or near the surface, these have been exploited by small scale quarrying. Some of the resultant spoil and disturbed land associated with such workings have created local historic landscape features in the area. These often support very rare vegetation swards with specialist species like leadwort.

Leadwort

Tree Cover

This exposed upland plateau is inherently sparsely wooded. Following the initial clearance of woodland, extensive grazing by livestock would have prevented regeneration. At the time of enclosure there would have been few timber trees. During the enclosure of this landscape, small plantation blocks and shelterbelts were planted, and small tree groups associated with isolated farmsteads are also a characteristic feature. Many of the plantations are non-native, comprising mainly of sycamore and beech.

Tree cover is more apparent around the villages where there are scattered boundary trees adjacent to some walls and small amenity groups within the settlement and around individual dwellings. The dominant species is ash, although sycamore is prevalent often replacing ash trees.

Adjacent to some field boundaries, isolated hawthorns have established. Some areas are more wooded than others but the overall effect is that of an open landscape with expansive views.

Enclosure

Dry-stone walls constructed from the local limestone enclose medium to large regular fields. The dry-stone walls are distinctive being constructed of random sized limestone rubble. Many of the walls are straight and, together with the regular shaped fields, reflect the relatively late enclosure of this landscape from waste and common.

Contrasting with the broader plateau there are narrow strip fields around the villages that create a very prominent and distinctive field pattern. The strip fields are indicative of enclosure from open fields, and much of this enclosure may have been piecemeal taking place over a long period of time.

Transport

Roads within villages can be quite dense and winding with variable width verges often centred on a village green. However, these roads extend from the village centre and quickly give way to the more direct roads of the landscape beyond. A dense network of green lanes and tracks supplements this road network.

The roads beyond the village are straight and direct, having uniform width verges again reflecting the later enclosure of this landscape. The roads connect the sparsely scattered farmsteads established at the time of enclosure. Moor Lane is a commonly recurring road name emphasising the former unenclosed waste and common. One notable road in this landscape is the A515, which runs for a large part on the line of a former Roman road.

Built Environment

A landscape containing nucleated villages like Monyash, Chelmorton and Taddington. The limestone village is a key characteristic. Cottages and farmsteads are constructed from the local Carboniferous Limestone, often random rubble, with stone and Welsh slate roofs.

Between villages there are sparsely scattered farmsteads, established at the time of parliamentary enclosure. Again, these are traditionally constructed from the local limestone, often random rubble, with slate roofs. Outside the village centre there are many small, isolated stone barns located along the boundaries of fields and integrated into the dry-stone walls.

Narrow, fossilised strip fields around villages

The limestone plateau has a strong association with the former lead mining industry and there is still evidence of this in areas where fields have small pits and hummocks, creating, in parts, a relict industrial landscape.

Quarrying, in general, is a prominent feature. Once small in scale, large modern quarries with their associated plant now dominate some areas.

Summary

The Plateau Pastures is a simple yet distinctive pastoral landscape strongly influenced by the underlying geology. The Carboniferous Limestone has given rise to an elevated and, for the most part, gently rolling upland plateau. This elevation, allied to the general lack of tree cover, allows for long distance and panoramic views.

The soils are inherently thin over the limestone and regularly leached by the highway rainfall. As a result, the predominant land-use is stock rearing associated with dairying and many of the fields are down to improved permanent pasture.

The cultural patterns of this landscape are strong and very distinctive. The whole of the plateau is divided into regular shaped fields enclosed by dry-stone walls. There are discrete limestone villages scattered across the plateau. Very distinctive small and narrow strip fields, again enclosed by walls, suggesting the extent of former open fields, surround the villages.

Tree cover is also a distinctive feature, although it is rarely visually prominent. It occurs primarily as small plantation blocks and shelter belts sparsely scattered throughout the landscape with localised trees and tree groups associated with villages and isolated farmsteads.

The unifying influence of the limestone as a locally distinctive building material, together with strong pastoral traditions and lack of modern development, ensures that the landscape retains its rural character.

Planting and Management Guidelines

Open, pastoral landscape on a rolling upland plateau punctuated by sparsely scattered, but visually prominent, small plantations with tree groups around farmsteads and settlement.

Excluding the Peak District National Park

Primary woodland character:	Thinly scattered small plantations
Primary tree character:	Localised amenity tree groups
Woodland vision:	Thinly scattered small plantations
Tree vision:	Localised amenity tree groups

- Conserve and enhance the tree groups that occur within and around rural settlements and isolated farmsteads.
- Conserve and enhance the plantations.

Note
Plantation woodlands primarily planted for shelter, comprised mainly of sycamore and sometimes beech, are visually striking features of this landscape character type. Their dense crowns and lack of understorey vegetation often creates silhouetted skyline features contrasting in the wider landscape with the naturalistic upland ash woods of the limestone dales. As a key landscape characteristic, and within the context of the visual appearance of this landscape, there is a strong argument to conserve and enhance this distinctive woodland character. The woodland species mix has been developed to take account of this fact.

Woodland Species Mix

Base-Rich Soils

Primary Tree Species 85%

‡	*Acer pseudoplatanus*	Sycamore

Secondary Tree Species 5-15%

‡	*Fagus sylvatica*	Beech
‡	*Fraxinus excelsior*	Ash
	Ulmus glabra	Wych Elm

Shrubs 0-10%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn
Ligustrum vulgare	Wild Privet

Minor

Cornus sanguinea	Dogwood
Ilex aquifolium	Holly
Prunus spinosa	Blackthorn
Viburnum opulus	Guelder Rose

Open space 0-20%

‡ **Amenity Trees** - tree species most appropriate for planting as amenity trees associated with settlement, or other locally occurring large woodlands species.

White Peak

LANDSCAPE TYPE: UPLAND LIMESTONE PASTURES

An undulating highland landscape of rough grazing and stock rearing, with prominent limestone outcrops and open, expansive views.

Key Characteristics

- Undulating highland plateau with steep slopes
- Very shallow loamy soils over Carboniferous Limestone
- Frequent bare rock outcrops and scree slopes
- Extensive stock rearing and rough grazing
- Occasional plantation block but essentially a treeless landscape
- Large regular fields bounded by dry-stone walls
- Mainly unsettled with occasional farmstead built in stone with slate roof

Geology and Landform

The underlying Carboniferous Limestone strongly influences this upland landscape, creating an undulating or steeply sloping extension to the highland plateau. The limestone bedrock is hard and slowly eroded which gives rise to a moderately undulating landform of numerous hill summits with extensive amounts of exposed rock. This is the most elevated part of the broader limestone plateau.

Soils and Land-Use

The soils are very thin, silty and loamy brown rankers, over limestone. These soils are strongly associated with limestone outcropping and are often stony. At these elevations they resemble humic rankers, having organic matter in the surface horizons.

These soils support rough grazing and, because of their free-draining nature and ability to absorb excess winter rain, offer little risk of poaching during the winter months.

Ecology

The ecological value of this landscape lies in the extensive area of unimproved grassland. Other features of interest include the large amounts of exposed rock and associated scree.

Tree Cover

Owing to the exposed terrain and the fact that the soils are too shallow to allow adequate rooting, this is a treeless landscape. There is the occasional tree group associated with an isolated farmstead and very occasional small woodland blocks in more sheltered areas with deeper soils. There is also some recent afforestation for commercial purposes but most of these trees are poorly growing.

Enclosure

Dry-stone walls constructed from the local limestone enclose large regular fields. These walls are distinctly constructed of random sized limestone rubble. They form straight boundaries and, together with the regular shaped fields, reflect the relatively late enclosure of this landscape from waste and common. Many of the walls are in a very poor condition and no longer function as stock-proof boundaries.

Transport

The few roads which cross this landscape are often winding, following the undulating nature of the landform. Dry-stone walls form the boundary to some lanes whilst others are often unfenced.

Built Environment

This is essentially an unsettled upland landscape with only the very occasional isolated farmsteads, although some of these are now deserted. Lime burning was a major industry in the area, as can be seen around Grin Low. However, human influence is still evident with the presence of large limestone quarries and their associated processing plants. Some quarries are modern and still operational whilst others are now disused and even reclaimed.

Summary

This is a landscape associated with the most elevated parts of the broader limestone plateau with an altitude between 350m and 450m AOD. The underlying limestone strongly influences this upland landscape, the form of which is moderately undulating with some steep slopes. Exposed rock is a common feature, giving the landscape a distinctly rugged appearance.

Soils are thin but, with the high levels of rainfall in these upland areas, they are characterised by humic surface horizons. As such, they allow for a marginal agricultural landscape, characterised by rough grassland, grazed by sheep. Although this landscape was enclosed at the time of parliamentary enclosure to create large regular fields, many of the walls are now in disrepair adding to the rocky nature of this landscape. With the walls effectively inoperable as stock-proof boundaries, sheep graze freely throughout this landscape.

Aspect, exposure, shallow soils and extensive sheep grazing has ensured that this landscape has retained an unwooded character with trees only obvious when planted as a small tree group associated with the very occasional farmstead.

Planting and Management Guidelines

An undulating upland landscape of rough grazing with no trees.

Excluding the Peak District National Park

Primary woodland character:	Open/unwooded
Primary tree character:	Treeless
Woodland vision:	Open/unwooded
Tree vision:	Treeless

- Where opportunities arise, the removal of coniferous plantation woodland should be encouraged as the existing character is open and unwooded.

White Peak

LANDSCAPE TYPE: LIMESTONE SLOPES

A landscape of small, nucleated limestone villages and dispersed farmsteads nestling within moderate to steeply sloping limestone slopes. Distinctive dry-stone walls enclose former open fields and semi-regular fields with a pastoral land-use.

Key Characteristics

- Steep slopes
- Localised bare rock outcrops on steeper slopes
- Fine, silty brown soils over silty, Aeolian drift over Carboniferous Limestone
- Stock rearing on permanent pasture
- Small semi-regular and strip fields enclosed by dry-stone walls
- Villages with limestone and slate roofed farmsteads and cottages
- Small, isolated field barns
- Small pits and hummocks in areas of historic lead mining

Geology and Landform

The underlying geology strongly influences this upland landscape creating a moderate to steeply sloping fringe to the limestone plateau. The Carboniferous Limestone is hard and slowly eroded giving rise to an undulating landform with many minor hill summits and extensive amount of exposed rock.

Soils and Land-Use

The soils are fine loamy brown earths over a free-draining bedrock and Aeolian drift. These are characteristically shallow to moderately deep, being shallowest on the steeper slopes and hillcrests. Deeper soils tend to be associated with the deeper accumulations of drift.

Pasture, and particularly dairying, is the dominant land-use with much of the land being farmed in a low-intensity system. The steepness of the slopes, allied to the thin soils and rocky outcrops, seriously restrict opportunities for providing improved pasture.

Ecology

Ecological value lies in the extensive area of unimproved grassland typically dominated by common bent and sheep's fescue. Where pasture has been abandoned, or on the steepest more sheltered slopes, scrub is beginning to colonise. This sometimes occurs with localised patches of gorse and bracken. Other features of interest include exposed rock and scree with their associated flora and fauna. There are also habitats of particular interest in areas of former lead mining.

Tree Cover

Tree cover is apparent throughout this landscape with scattered boundary trees, small woodland blocks and extensive patches of scrub colonising abandoned pasture. Most of the woodland is associated with the steeper, less cultivable slopes where soils are thinnest and stony.

The overall effect is that the trees provide filtered views through the

landscape, although there are long distance views to the slopes beyond as a result of the sloping topography.

Enclosure

Dry-stone walls constructed from the local limestone enclose small to medium, semi-regular fields. The walls are distinctive being constructed of random sized limestone rubble. With the abandonment of some pasture, many of them have been neglected and are in a poor condition.

Transport

There is a dense network of winding lanes with irregular width verges. Most of the lanes connect the small villages and farmsteads, winding themselves through the landscape and avoiding the steepest slopes. There are also a number of green lanes and footpaths like the Limestone Way that run between the settlements.

Built Environment

This is a settled landscape of nucleated limestone villages and scattered farmsteads and cottages. These are traditionally constructed from the local limestone, often random rubble, with stone or Welsh slate roofs.

Limestone villages nestled into the landscape

Outside the settlements, there are isolated stone barns located along the boundaries of fields and integrated into the dry-stone walls, many of which are now derelict.

Isolated barn on Bonsall Moor

Other features in this landscape are the small pits and hummocks found in many fields, associated with the historic lead mining industry. Most of the remains date from the 17th to 19th centuries, although some are earlier. Quarrying in general is a prominent feature. Once small in scale, large modern quarries with their associated plant now dominate some areas.

Summary

This is a landscape strongly influenced by the Carboniferous Limestone geology creating a moderate to steeply sloping fringe to the limestone plateau. The hard and resistant rock is slowly eroded giving rise to an undulating landform with minor hill summits and areas of exposed rock.

The soils are characteristically variable relating to landform, being thinnest on the steepest slopes and hillcrests. The thin soils allied to the steepness of some slopes and the extent of exposed rock ensures that unimproved pasture and rough grazing supports low-intensity grazing by livestock.

The landscape is well settled with villages and scattered farmsteads traditionally built in the local limestone with stone slate roofs. Beyond the village and scattered throughout there are small stone field barns often integrated into the dry-stone walled boundaries.

Unlike other areas of the limestone plateau, tree cover tends to be more apparent occurring as scattered trees or trees groups around settlements but also as small woodland blocks and extensive patches of scrub colonisation. The trees filter views through the landscape but there are open long distance views to slopes beyond.

Planting and Management Guidelines

Moderate to steeply sloping pastoral landscape with scattered small plantations, occasional semi-natural woodland and small tree groups around farmsteads and settlement.

Excluding the Peak District National Park

Primary woodland character:	Thinly scattered small plantations and semi-natural woodland
Primary tree character:	Localised amenity tree groups
Woodland vision:	Thinly scattered small-medium plantations
Tree vision:	Localised amenity tree groups

Typical woodland size range:	0.5-15ha	small-medium
Woodland pattern:	Regular/ organic	

- Small scale woodland planting.
- Promote linked extensions to ancient woodland by natural regeneration and planting.
- Ensure a balance is maintained between new woodland planting and areas of nature conservation value.
- Encourage the management of scrub and secondary woodland to link with existing habitats and woodland.
- Conserve and enhance the tree groups that occur within and around rural settlements and isolated farmsteads.
- Ensure new woodland does not conflict with features (e.g. ridge and furrow) that help to define landscape character.

Woodland Species Mix

Calcareous Soils

Primary Tree Species 50%

Acer campestre	Field Maple
‡ *Fraxinus excelsior*	Ash

Secondary Tree Species 20%

Major

Malus sylvestris	Crab Apple
Sorbus aucuparia	Rowan
Ulmus glabra	Wych Elm

Minor

Prunus padus	Bird Cherry
Taxus baccata	Yew

Shrubs 10-30%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn

Minor

Cornus sanguinea	Dogwood
Ilex aquifolium	Holly
Prunus spinosa	Blackthorn
Viburnum opulus	Guelder Rose

Open space 0-20%

‡ **Amenity Trees** - tree species most appropriate for planting as amenity trees associated with settlement, or other locally occurring large woodlands species.

White Peak

LANDSCAPE TYPE: LIMESTONE DALES

Narrow, deeply incised river valleys with steep slopes and extensive amounts of exposed rock. There are blocks of ancient woodland, areas of scrub and rough grassland grazed by sheep.

Key Characteristics

- Very steeply sloping valley sides
- Frequent bare rock outcrops and scree slopes
- Very shallow loamy soils over Carboniferous Limestone
- Rough grazing by sheep in enclosures bounded by dry-stone walls
- Blocks of ancient woodland
- Areas of scrub dominated by hawthorn

Geology and Landform

Narrow, steep sided valleys have been cut into the Carboniferous Limestone by the headwaters of minor streams and rivers flowing away from the limestone plateau. The principal rivers forming these dales are the Wye, the Lathkill and the Dove. The result is a series of distinctive limestone dales. In contrast to wet dales, many of the smaller dales are dry, owing to the fact that water percolates through the bedrock.

The dale sides have frequent outcrops of the grey-white limestone sometimes forming precipitous rock buttresses with scree slopes.

The rivers are fast flowing with a rocky river bed giving a strong sense of movement.

The steep valley sides with rock outcrops, in association with the narrow river corridor, create a strong feeling of containment.

Soils and Land-Use

Very shallow, loamy, upland soils lie over the limestone. These soils are thinnest on the steeper rocky slopes and deeper in the valley floor. Dark humose surface horizons predominate; most soils are non-calcareous but calcareous soils also occur.

Narrow strips of alluvial soils are found along the Dove and the Wye associated with the narrow flood plain.

As the slopes are often too steep for improved pasture or afforestation, the land is used mainly for rough grazing by sheep. This semi-natural grassland is of good grazing value.

Ecology

The ecology of these dales is an intimate mix of semi-natural habitats, ranging from deciduous woodland dominated by ash, scrub woodland with hawthorn and large tracts of unimproved grassland. The low grazing pressure on these slopes distinguishes them from other limestone landscapes and maintains the floristic diversity of the grasslands. The grasses are characterised by fescues and many small herbs like common rockrose, wall-pepper and wild thyme can be found on the rockier soils and outcrops.

Cowslips and orchids

The river channel is an important ecological corridor and often retains its natural bank profiles with some occasional, marginal, aquatic vegetation and riparian trees.

Tree Cover

Tree cover is a key feature of these dales although its extent is variable. Some valley sides, like those in the Wye Valley, are extensively wooded with broad tracts of ancient semi-natural woodland. In other valleys, woodland cover is more sporadic and is associated with scrub woodland dominated by hawthorn.

Wood anemone in ancient woodland

Where broad-leaved woodland prevails it tends to be dominated by ash with hazel although sycamore is now common. There are also some scattered trees along the riverbanks dominated by willow and hawthorn.

Overall, the woodland cover coupled with the steep valley sides can create a strong sense of enclosure and visual containment.

Enclosure

This is essentially an unenclosed landscape although occasional dry-stone walls divide the valley. Many of these walls are now neglected and in poor condition.

Transport

Some of these dales have been utilised as transport corridors with major roads and railways running in the valley bottom or on the valley sides. This is particularly notable in the Wye Valley where the main A6 trunk road and a railway line run up the valley.

The A6 through Wye Dale

Now the railway lines are mainly disused, many have become attractive recreational routes. Where dales have been unaffected by transport links they remain relatively unspoilt, accessed only by footpaths and bridleways, often steep in places.

Built Environment

Human habitation is not a feature of these limestone dales owing to their topographical inaccessibility. Some man-made activities do impact in the form of modern quarries, lead mining remains and water management systems. Occasional mills built in the local stone to harness water power survive, generally converted to other uses.

Although many dales remain uninhabited, there has been extensive urbanisation of the Matlock dale through Matlock Bath and its feeder valleys of the Bonsall Brook and Via Gellia. Matlock Bath is a late Georgian and Victorian creation, developed as a popular spa and inland resort. Many of the Regency and Victorian villas, and terraces are built in brick finished with stucco rather than the local stone.

Summary

The headwaters of minor streams have carved through the Carboniferous Limestone geology to form narrow, deeply incised and steeply sloping valleys. The valley sides are characterised by steep, rocky cliffs and scree slopes, making them inaccessible for most uses other than rough grazing by sheep.

Thin soils and light grazing have ensured that many of the original habitats, such as ancient woodland and species-rich calcareous grassland, have remained in excellent condition and support species of national importance.

Many dales have been utilised as transport corridors, where roads and railways run parallel to the narrow watercourse. Some former railway lines have been converted to long distance footpaths and bridleways.

The steep valley sides and rocky cliffs, coupled with the narrow valley sides, impart a strong sense of enclosure and visual containment. Where the dales remain free of infrastructure, they retain a tranquil and secluded character, although paradoxically, this tranquil character attracts heavy recreational use.

Planting and Management Guidelines

Narrow, deeply incised river valleys with widespread semi-natural woodland, much of ancient origin and scattered watercourse trees.

Excluding the Peak District National Park

Primary woodland character:	Widespread large semi-natural broadleaved woodlands
Primary tree character:	Scattered watercourse trees
Woodland vision:	Widespread large woodlands
Tree vision:	Scattered watercourse trees

- Conserve and restore all ancient woodland sites by natural regeneration or use of locally occurring native species.
- Ensure the use of indigenous tree and shrub species, including a proportion of large, long-lived species.
- Ensure a balance is maintained between new woodland planting and areas of nature conservation value.
- Enhance the visual and ecological continuity of river corridors by management, natural regeneration and planting of riparian trees.

Woodland Species Mix

Calcareous Soils

Primary Tree Species 50%

Acer campestre	Field Maple
Fraxinus excelsior	Ash

Secondary Tree Species 20%

Major

Malus sylvestris	Crab Apple
Sorbus aucuparia	Rowan
Ulmus glabra	Wych Elm

Minor

Prunus padus	Bird Cherry
Taxus baccata	Yew

Shrubs 10-30%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn

Minor

Cornus sanguinea	Dogwood
Ilex aquifolium	Holly
Prunus spinosa	Blackthorn
Viburnum opulus	Guelder Rose

Open space 0-20%

Waterlogged Conditions on all soil types

Primary Tree Species 50%

Alnus glutinosa	Alder
Fraxinus excelsior	Ash
† *Salix fragilis*	Crack Willow

Secondary Tree Species 20%

Major

Betula pubescens	Downy Birch

Minor

† *Salix capraea*	Goat Willow
† *Salix cineraea*	Grey WIllow

Shrubs 10-30%

Major

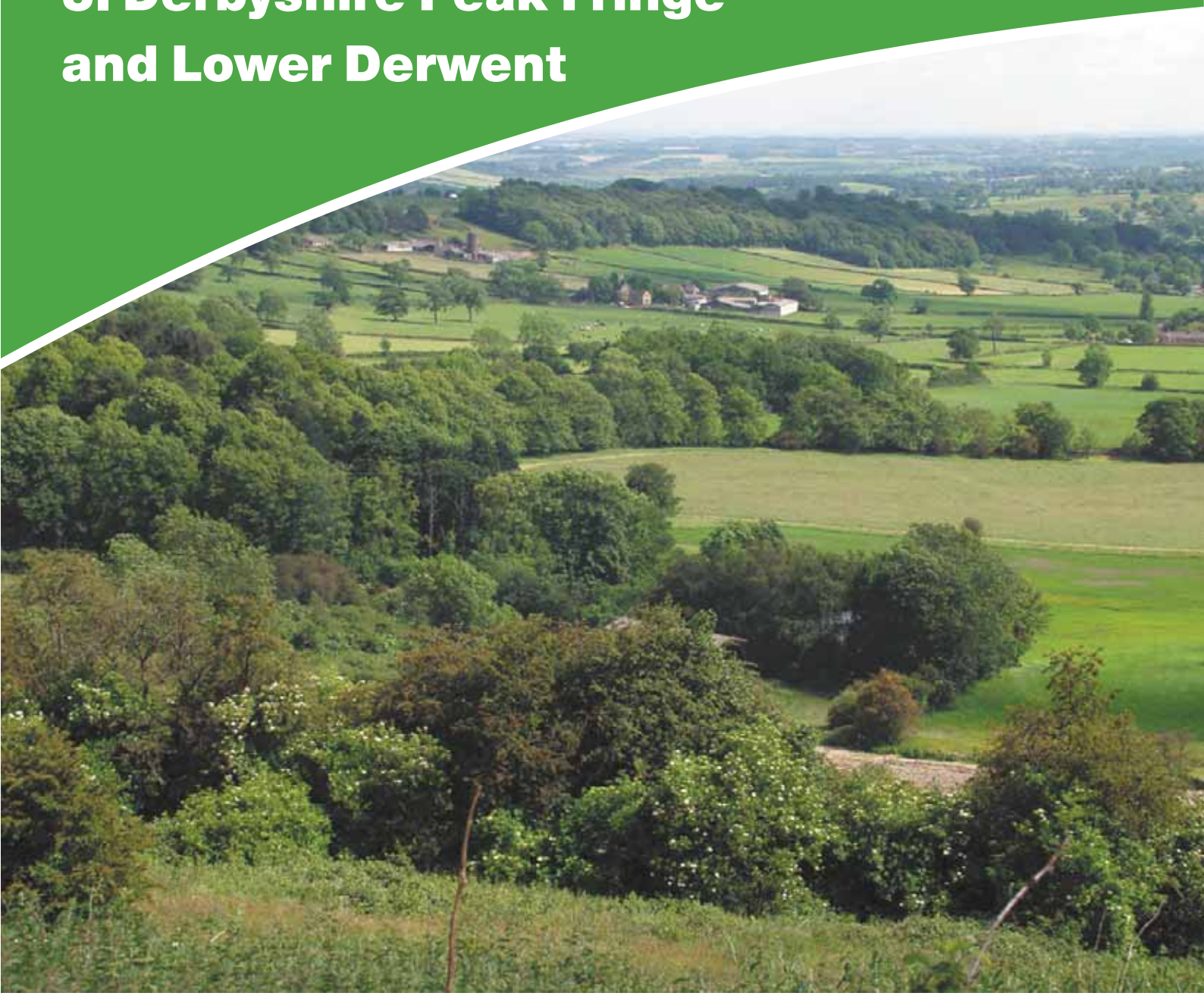
Crataegus monogyna	Hawthorn

Open space 0-20%

† **Watercourse Trees** - tree species most appropriate for planting as watercourse trees

Part One: Landscape Character Descriptions

3. Derbyshire Peak Fringe and Lower Derwent

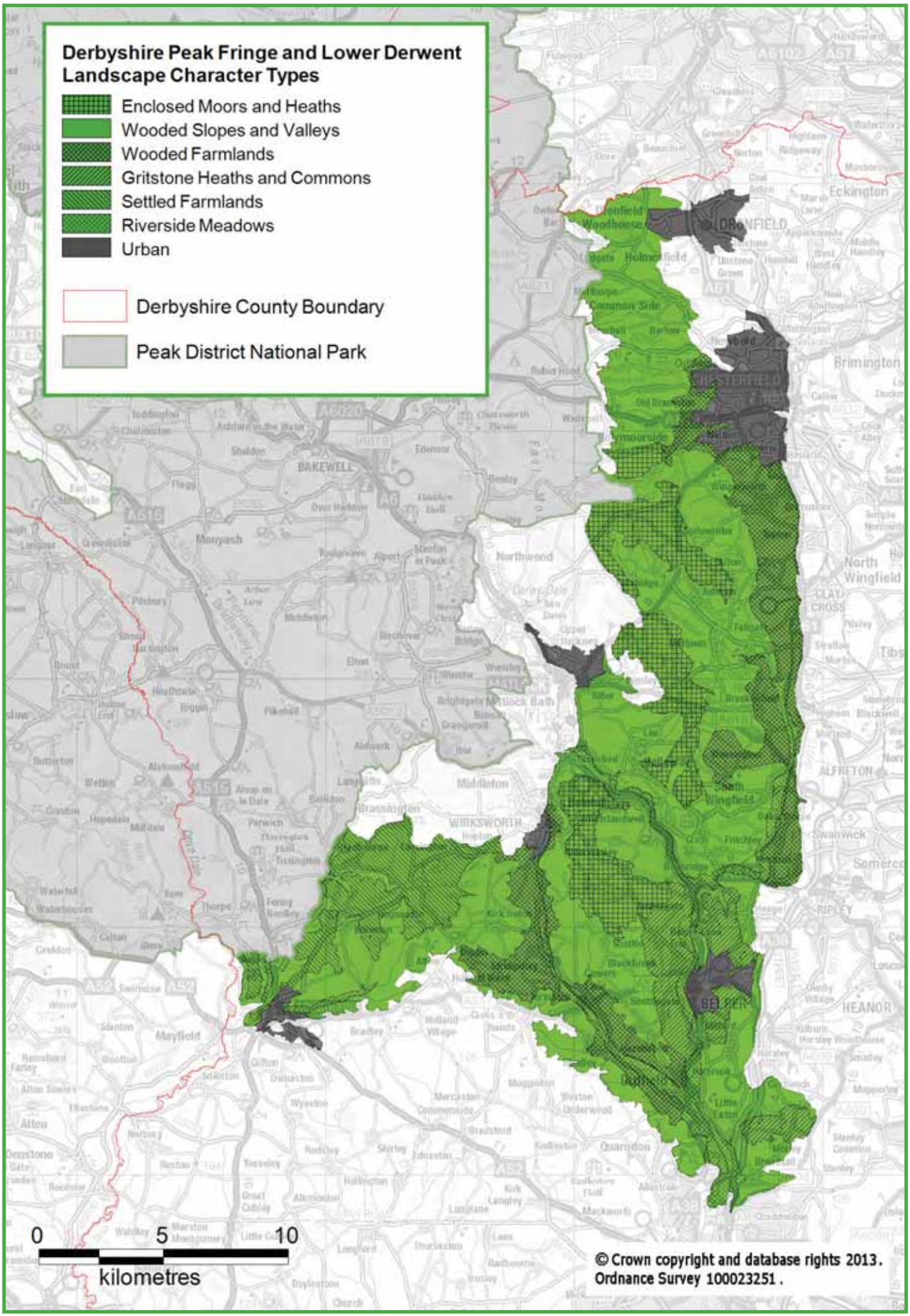


Landscape Character Types

- Enclosed Moors and Heaths .. 3.5
- Wooded Slopes and Valleys ... 3.8
- Wooded Farmlands 3.12
- Gritstone Heaths and Commons .. 3.16
- Settled Farmlands 3.21
- Riverside Meadows 3.26

DERBYSHIRE County Council

Improving life for local people


Derbyshire Peak Fringe and Lower Derwent
Landscape Character Types
Enclosed Moors and Heaths
Wooded Slopes and Valleys
Wooded Farmlands
Gritstone Heaths and Commons
Settled Farmlands
Riverside Meadows
Urban
Derbyshire County Boundary
Peak District National Park
0
5
10
kilometres
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Ordnance Survey 100023251 .

Derbyshire Peak Fringe and Lower Derwent

CHARACTER AREA 50

An undulating, well-wooded, pastoral landscape on rising ground between the Derbyshire Coalfield and the Peak District

Landscape Character Types

- Enclosed Moors and Heaths
- Wooded Slopes and Valleys
- Wooded Farmlands
- Gritstone Heaths and Commons
- Settled Farmlands
- Riverside Meadows

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

p16 Alison Uttley 'The Country Child'

Introduction

The Derbyshire Peak Fringe and Lower Derwent is a Character Area exclusive to Derbyshire, being a transitional landscape between the Derbyshire Coalfield in the east, the Needwood and South Derbyshire Claylands to the south and the Peak District (comprising the Dark and White Peaks) to the north-west. For the purposes of the Derbyshire Landscape Character Assessment this area also includes the southern limits of the Yorkshire Southern Pennine Fringe within the county.

The landscape has a typical elevational range of 100m to 300m although the landform, comprising bands of sandstone and mudstone, is distinctly undulating as it rises from east to west forming the foothills to the Peak District.

Central to the character of the area are the river valleys, the Ecclesbourne, the Amber and most notably the Derwent. The Derwent Valley extends through the heart of the area from Cromford to Derby taking in the settlements of Belper and Duffield. With steep, wooded valley sides in the north, the flood plain broadens towards Duffield with the Derwent meandering through it. Towards the north of the area smaller fast-flowing brooks were dammed to harness water power and the Derwent Valley itself became a cradle of the industrial revolution with the development of the new factory system, facilitated by the construction of large water-powered textile mills.

This early industrialisation was largely arrested by competition from Lancashire and Yorkshire. Land-use has remained predominantly pastoral with mixed stock rearing and rough grazing. Where topography allows there is some mixed farming with occasional arable fields. Woodland is well represented throughout with extensive ancient semi-natural woodland occupying steep valley sides and smaller woodlands elsewhere. Species-rich hedgerows with hedgerow trees are prevalent in the east although in the most elevated areas towards the Peak District, these give way to dry-stone walls.

From north to south, the area includes a number of small towns such as Wirksworth, although the settlement pattern is predominantly dispersed with many scattered and isolated farmsteads. In the north, the expansion of Chesterfield is slowly introducing urban fringe activities such as 'horsiculture' into an otherwise agricultural landscape. A similar pattern is developing in the south near Derby.

Physical Influences

The underlying geology is the cause of transitional changes in the landscape. Bands of sandstone, mudstone and coal seams in the east give way to a predominance of sandstone and gritstone as the land rises towards the Peak District. Occasional outcrops of Carboniferous Limestone also occur within the *Wooded Slopes and Valleys* at Ashover and Crich, and add some local diversity. In the south, near Belper, a Millstone Grit scarp called the Chevin and another at Alport Heights are considered to be the last outliers of the Pennine chain, which affords long distance, panoramic views over lower lying landscapes.

Natural Influences

The predominant land-use is pasture for stock rearing although the quality of the grasslands is variable. Within the *Enclosed Moors and Heaths*, soils tend to be poor quality and the land-use, without agricultural improvement, is rough grazing. Much grassland tends to be neutral in character but there is localised calcareous grassland associated with limestone outcrops, and acid grassland and heath associated with steep slopes over sandstone.

Ancient semi-natural broadleaved woodland is a prominent characteristic of the *Wooded Slopes and Valleys*. *Wooded Farmlands* occur most notably along the steep valley sides of the Derwent. These woodlands are made up typically of oak, birch and hazel with many ancient woodland indicator species such as bluebell amongst the ground layer.

Stone walls are a feature of *Enclosed Moors and Heaths*. However, at lower elevations, many fields are defined by mixed species hedgerows with mature oak trees which may act as ecological corridors, connecting other habitats.

Human Influences

Evidence of prehistoric settlement in this area is particularly common to the west on the fringes of the White Peak. Elsewhere, the Romans developed an extensive pottery industry around Hazelwood and the presence of medieval moated sites in the Ecclesbourne Valley may suggest relatively late colonisation from woodland. Villages like Bradbourne and Brassington also had an early origin and fine examples of the medieval ridge and furrow of their former open fields survive. Towns like Chesterfield and Wirksworth also have early origins, the former as a Roman settlement and the latter probably from the 8th century AD.

The present day settlement pattern is variable. Nucleated villages, such as Brassington and Bradbourne, are features of the *Settled Farmlands*, whilst the *Wooded Slopes and Valleys* have a more dispersed pattern with scattered farmsteads and small hamlets nestled into the hillsides. There are urban influences associated with the expansion of Chesterfield into the eastern fringes of the *Wooded Farmlands*. Wirksworth, Duffield and Belper have also expanded in size. Most notable is Belper, with large modern residential areas now extending into the open *Gritstone Heaths and Commons*.

The predominant building material throughout is gritstone with stone or Welsh slate roofs. Where the Peak Fringe abuts the White Peak, the traditional buildings combined limestone and gritstone with stone slate or Staffordshire blue clay tiled roofs. In the southern parts, towards Derby and Ashbourne, red brick is more evident as a building material, particularly in the construction of large water-powered textile mills.

Due to the topography and relief of this landscape, many settlements in valley bottoms may be observed from an elevated viewpoint, thereby emphasising their significance within the landscape.

Long before the industrial revolution, life was sustained by industrial, as well as agricultural activity, and evidence of abandoned mines and quarries makes a significant contribution to the area's character.

Industries have included small scale coal mining within the *Wooded Farmlands*, lead and iron mining, glass making, and limestone and gritstone quarrying within the *Wooded Slopes and Valleys* and *Enclosed Moorland*. Modern day quarry activity is particularly evident around Wirksworth, Crich and Ashover.

Bluebell Wood

The area's strongest cultural association is with the industrial revolution, when early industrialists like Richard Arkwright and Jedediah Strutt in the late 18th century, built large cotton mills powered by water within the *Riverside Meadows*.

Belper Mill

At Cromford and Belper, the mill masters also built houses, shops, schools, churches, chapels and farms to sustain the local workforce and their families. Collectively, the mills, other associated buildings and the landscape of the Derwent Valley now form the basis of the Derwent Valley Mills World Heritage Site.

Workers cottages at Cromford

Other Considerations

- Lowland Derbyshire BAP
- Peak District BAP
- Derwent Valley Mills World Heritage Site

**A more detailed description of the cultural landscape of the Derwent Valley Mills World Heritage Site may be found in the World Heritage Site Management Plan. www.derwentvalleymills.org*

Derbyshire Peak Fringe and Lower Derwent

LANDSCAPE TYPE: ENCLOSED MOORS AND HEATHS

An open, farming landscape on broad rolling hill summits with patches of remnant moorland. Dry-stone walls enclose regular fields and straight roads join occasional sandstone farmsteads.

Key Characteristics

- Rolling upland summits
- Thin soils over hard sandstone bedrock
- Pastoral farming, sheep and dairy cattle
- Widespread bracken, localised gorse and patches of remnant moorland habitat
- Sparsely scattered trees beside farmsteads and along some field boundaries
- Regular pattern of fields, bounded by dry-stone walls
- Regular lanes with uniform width verges
- Sparsely scattered sandstone farmsteads with stone slate roofs

Geology and Landform

These hill summits are underlain by rocks of Namurian age of the Millstone Grit Series. The bedrock of the summits around Cromford Moor is hard sandstone. An anomaly to this is the high ground at Crich Stand which is on an uplifted inlier of Carboniferous Limestone.

Where erosion has cut through the sandstone the bedrock is softer, grey, marine mudstone. The lower ground associated with the mudstone forms undulations in the summits. These become deeper and steeper valleys as they fall off onto the adjacent slopes.

Soils and Land-Use

Soils have a coarse loamy texture and are free-draining due to the underlying permeable sandstone. The thinnest, best-drained soils can become very acidic, particularly under semi-natural vegetation. Over the mudstone, the drainage is poorer and the soils can be seasonally waterlogged.

Pasture is the dominant land-use in this landscape. Most of the fields have been ploughed and reseeded, and are grazed by cattle and sheep. The soils tend to become quite acidic and require frequent liming to prevent the development of an organic surface mat and subsequent reversion to moorland.

Ecology

Prior to enclosure, these landscapes would have been covered in heathy acid grassland. There would have been widespread gorse, bracken, heather and bilberry. Patches of these species still persist. Particularly significant is the patch of gorse, bracken and broom at Alport Heights. Bracken and gorse are found along roadside verges. There is little floristic interest in the improved grassland that exists today. A small area of this landscape type at Crich occurs over an inlier of Carboniferous Limestone and as a result has calcareous grassland associations.

Tree Cover

The moorland summits are inherently very sparsely wooded. The traditional land management by stock rearing has prevented the regeneration of trees. There are

occasional trees in field boundaries and planted around farmsteads, providing shelter in an otherwise exposed landscape. There are very occasional small plantations and areas of scrubby woodland, including birch, rowan and sallow, that have developed on localised slopes over thin, free-draining acidic soils but the overall perception is that of an open, unwooded landscape.

Enclosure

Dry-stone walls, made of irregular blocks of local grey to brown sandstone, enclose medium sized fields. The boundaries on the higher ground tend to be straight which suggests late enclosure of the open common.

Near Shottle and in the Crich area, there is a more irregular field pattern, bounded by a mixture of dry-stone walls and mixed species hedgerows containing holly, suggesting earlier enclosure.

Transport

Straight roads, with fairly wide, uniform width verges connect the isolated farmsteads on the late enclosed summits.

Straight road with uniform width verges

Near Shottle and Crich, the roads curve around ownership boundaries. These curving lanes have irregular width verges and are enclosed by a mixture of hedgerows and dry-stone walls, again suggestive of a period of earlier enclosure.

Built Environment

Grey to brown sandstone farmsteads with Staffordshire blue clay tile or stone slate roofs are the dominant vernacular building type. These farmsteads are scattered through the landscape. Occasional large farms are found on the late enclosed summits. The smaller farms tend to be more densely packed around Shottle and Crich. Occasional small field barns are a feature of this landscape type. A modern quarry at Crich impacts upon the landscape. There is also evidence of earlier lead mining in the area.

Summary

These hill summits and moorland fringes are formed by upstanding sandstone of the Millstone Grit Series with a small outcrop of Carboniferous Limestone at Crich. All the soils are free-draining, coarse loams but where they are thinnest or under remnant semi-natural vegetation they become impoverished and acidic.

The present land-use is pastoral although before enclosure, these areas would have been essentially semi-natural. Heather and bilberry would have been prevalent in the more northern areas with gorse, broom and bracken dominating at Alport Heights. Where marginal fields have been abandoned, these have quickly reverted back to moor and heath with birch scrub.

Individual sandstone farmsteads are scattered and would have followed the parliamentary enclosure of these areas. Late enclosure is supported by the regular and geometric shaped fields bounded by dry-stone walls. These moorland summits are inherently unwooded and trees are scarce, other than occasional boundary trees and those planted around farms for shelter. This creates an open landscape with expansive views.

The majority of roads are straight with fairly wide, uniform-width verges and would have been established or re-aligned at the time of parliamentary enclosures. The upland area around Alport Heights has winding lanes with irregular verges and is possibly an area of earlier enclosure. The road verges now function as remnant habitats for many of the semi-natural heathland species.

Planting and Management Guidelines

An open, unwooded landscape on broad, rolling hill summits punctuated by occasional small plantations and tree groups around farmsteads.

Primary woodland character:	Open/ unwooded
Primary tree character:	Localised amenity tree groups
Woodland vision:	Open/ unwooded
Tree vision:	Localised amenity tree groups

- Conserve and enhance the tree groups that occur within and around rural settlements and isolated farmsteads.
- Maintain open character of landscape.

Woodland Species Mix

‡ **Amenity Trees** - appropriate tree species for planting as amenity trees associated with settlement should include locally occurring large woodland species, eg Sessile Oak *(Quercus petraea)*, Pedunculate Oak *(Quercus robur)* and Ash *(Fraxinus excelsior)*.

Derbyshire Peak Fringe and Lower Derwent

LANDSCAPE TYPE: WOODED SLOPES AND VALLEYS

This is a landscape of small pastoral fields on undulating, rising ground. Woodlands on steeper slopes, along with hedgerow and watercourse trees contribute to a strongly wooded character.

Key Characteristics

- Upland, undulating ground rising up to moorland
- Slopes are moderate to steep, and steepen along stream valleys
- Poorly draining soils over bands of mudstone and harder sandstone
- Permanent pasture for sheep and dairy cattle
- Widespread bracken and localised gorse on the thinner soils of steeper slopes
- Densely scattered small to medium ancient woodlands and secondary woodland on steeper slopes and along streams
- Densely scattered hedgerow trees
- Irregular field pattern bounded by mixed species hedgerows
- Dry-stone walls are widespread, defining a more regular field pattern
- Network of winding lanes, sunken on steeper slopes, with rocky banks
- Dispersed sandstone farmsteads with stone slate roofs

Geology and Landform

The underlying bedrock is sandstone and mudstone of the Lower Coal Measures and the Millstone Grit. The upstanding, higher ground is underlain with sandstone, while the valleys are cut into the softer mudstone. There are localised seams of coal, which have been exploited by mining. For much of the area, the beds dip towards the east from the high moors.

Soils and Land-Use

Soils are variable, reflecting the range of underlying geology and steepness of slope. Over the sandstone bands and on steeper slopes there are coarse loamy, well-drained soils. Seasonally waterlogged gley soils are found over the mudstone bands or on the lower lying slopes. All of the soils are agriculturally poor and consequently, the dominant land-use is permanent grassland for pasture or hay. There are occasional arable fields on the better drained soils over sandstone.

Ecology

The network of watercourses, often linked with woodland bands, provide the key wildlife habitat in this landscape character type. This network links isolated patches of habitat in the farmed landscape, reinforced by the hedgerows. On the thin, well-drained soils over sandstone there are patches of heathy acid grassland with bracken, gorse and occasionally heather. Bracken is widespread along field boundaries and on road verges.

Tree Cover

Patches of semi-natural woodland, many of ancient origin, are widespread. They are particularly associated with the agriculturally poor soils on steep slopes and the heavy soils at the base of valleys. The woodlands, especially ancient woodlands, tend to be small to medium in size, with an irregular outline. On acid soils, the woodland

is generally upland oakwood containing sessile and pedunculate oak, together with downy and silver birch, holly, rowan and hazel.

Shining Cliff ancient woodland

Small areas of wet woodland occur on the waterlogged soils of flushed slopes and low-lying ground. Such wet woodlands support ash, birch and hazel mixed with alder. Hedgerow trees have a strong influence in some parts of the landscape, though they tend to be rarer on areas of former open field or common. Oak and ash are the main boundary trees, though holly is also noticeable. Ancient woodland and the presence of oak and holly within hedgerows may be indicative of a more extensive ancient wooded landscape. Trees are often found around farmsteads, where they provide some shelter and soften the impact of buildings. Where streams are bounded by gentle slopes, there is usually a continuous belt of watercourse trees, particularly alder.

Enclosure

This is a landscape of small fields, enclosed by hedgerows and dry-stone walls.

Hedgerows contain a mix of species, including holly, hawthorn, hazel, field maple and ash. The hedgerows often define a very irregular field pattern.

Irregular field pattern suggesting direct clearance from woodland

This suggests that the fields were cleared directly from woodland, and that the woodland trees and shrubs were used to form the hedgerows. Place names like Dronfield Woodhouse suggest medieval clearance of woodland.

Dry-stone walls define a more regular pattern of fields, suggesting later enclosure of open ground, common land or moorland.

Transport

There is a dense network of winding lanes, with irregular width verges. Sunken lanes are a feature on sloping ground, though they avoid the very steepest slopes. There are also green lanes, some that run just to isolated farmsteads together with footpaths linking settlements.

Winding country lane

Built Environment

The majority of historic buildings are constructed of local sandstone, traditionally roofed with stone slates. Farmsteads are dispersed throughout the landscape, though there are occasionally clusters of farmsteads and cottages.

Summary

It is the intimate mix of the Lower Coal Measures and Millstone Grit which has given rise to this undulating, rising landscape. As a result, the soils are highly variable from thin impoverished soils over the upstanding sandstone, to heavy gleyed soils in the damp hollows and small valleys. Between these extremes there will be localised variation related to geology and relief.

All the soils are agriculturally poor so this is a landscape traditionally associated with woodland. Indeed, much of the early settlement and clearance would have been by woodland assarting. This is reflected in the widespread dispersal of individual farmsteads and the large number of small, irregular fields with mixed species hedgerows.

The resulting landscape is a mix of pastoral farming with small, irregular woodlands, many of ancient origin, on the steeper uncultivable slopes. These woodlands, along with hedgerow trees, give the landscape a distinctly wooded character. Hedgerow trees are predominantly oak with some ash which, along with the mixed species hedgerows, may be indicative of a previously more extensive ancient wooded landscape.

Country lanes are sinuous, often sunken, winding their way through the landscape avoiding steeper slopes. The road network is dense, reflecting the moderate to high density dispersal of farmsteads.

Planting and Management Guidelines

A rising, undulating landscape with many semi-natural woodlands, some of ancient origin, along steep slopes and valley sides with densely scattered hedgerow and watercourse trees.

Primary woodland character:	Densely scattered small-medium woodlands
Primary tree character:	Densely scattered hedgerow and dense watercourse trees
Woodland vision:	Widespread small-medium woodlands
Tree vision:	Densely scattered hedgerow and dense watercourse trees

Typical woodland size range:	0.5 - 15ha	small-medium
Woodland pattern:	Organic	

- Small-medium scale woodland planting.
- Conserve and restore all ancient woodland sites and restock with locally occurring native species.
- Promote linked extensions to ancient woodland by natural regeneration and planting.
- Ensure the use of indigenous tree and shrub species, including a proportion of large, long-lived species.
- Re-establish and enhance physical links between existing isolated woodland and hedgerows.
- Ensure the management and enhancement of hedgerow trees, through selection and natural regeneration, or by planting.
- Encourage the management of scrub and secondary woodland to link with existing habitats and woodland.
- Enhance the visual and ecological continuity of river corridors by management, natural regeneration and planting of riparian trees.
- Where opportunities arise, the removal of coniferous plantation woodland should be encouraged.
- Ensure the conservation and management of mature/veteran trees within hedgerows.

Woodland Species Mix

Neutral/Slightly Acidic Soils

Primary Tree Species 50%

Betula pendula	Silver Birch
Betula pubescens	Downy Birch
Quercus petraea	Sessile Oak
Quercus robur	Pedunculate Oak

Secondary Tree Species 20%

Major

Fraxinus excelsior	Ash
Ilex aquifolium	Holly

Minor

Malus sylvestris	Crab Apple
Populus tremula	Aspen
Prunus avium	Wild Cherry
Sorbus aucuparia	Rowan

Shrubs 10-30%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn

Minor

Lonicera periclymenum	Honeysuckle
Viburnum opulus	Guelder Rose

Open space 0-20%

More Acidic Soils

Primary Tree Species 50%

Betula pendula	*Silver Birch*
Betula pubescens	Downy Birch
Quercus petraea	Sessile Oak
Quercus robur	Pedunculate Oak

Secondary Tree Species 20%

Major

Ilex aquifolium	Holly
Sorbus aucuparia	Rowan
Populus tremula	Aspen

Shrubs 10-30%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn

Open space 0-20%

Waterlogged Conditions on all soil types

Primary Tree Species 50%

† *Alnus glutinosa*	Alder
Betula pubescens	Downy Birch
Salix caprea	Goat Willow
Salix fragilis	Crack Willow

Secondary Tree Species 20%

Major

Betula pendula	Silver Birch
Ilex aquifolium	Holly

Minor

Quercus petraea	Sessile Oak
Quercus robur	Pedunculate Oak
Tilia cordata	Small Leaved Lime

Shrubs 10-30%

Major

Crataegus monogyna	Hawthorn
Salix aurita	Eared Willow
Salix cinerea	Grey Willow

Minor

Prunus spinosa	Blackthorn
Rosa canina	Dog Rose
Viburnum opulus	Guelder Rose

Open space 0-20%

† **Watercourse Trees** - tree species most appropriate for planting as watercourse trees.

Hedgerow Species Mix

Suitable hedgerow plants

Primary 70-75%

Crataegus monogyna	Hawthorn

Secondary 25-30%

Acer campestre	Field Maple
Corylus avellana	Hazel
Ilex aquifolium	Holly

Occasional 0-5%

Lonicera periclymenum	Honeysuckle
Viburnum opulus	Guelder Rose

Suitable hedgerow trees

Primary 95-100%

Fraxinus excelsior	Ash
Quercus petraea	Sessile Oak
Quercus robur	Pedunculate Oak

Occasional 0-5%*

Malus sylvestris	Crab Apple
Prunus avium	Wild Cherry
Prunus padus	Bird Cherry
Sorbus aucuparia	Rowan

* only to be used if occurring locally within the landscape character type

Derbyshire Peak Fringe and Lower Derwent

LANDSCAPE TYPE: WOODED FARMLANDS

This is a mixed farming landscape on undulating ground. Woodlands, along with hedgerow and watercourse trees, contribute to a strongly wooded character.

Key Characteristics

- Undulating, intermediate landform, with gentle slopes
- Poorly draining soils over mudstone with localised sandstone and coal seams
- Localised bracken on thinner soils over sandstone
- Scattered ancient woodlands
- Scattered hedgerow trees locally dense in places
- Dense tree cover along streams
- Small to medium irregular fields enclosed by mixed species hedgerows
- Curving lanes with irregular verges
- Scattered sandstone farmsteads and occasional hamlets

Geology and Landform

The underlying bedrock is dominated by mudstone of the Lower Coal Measures. Within the mudstone there are bands of sandstone, forming the higher ground, and seams of coal which have been exploited by mining. There is a subdued undulating landform, with few steep slopes.

Soils and Land-Use

Seasonally waterlogged gley soils are found over the mudstone bands. These heavy soils are difficult to work and would traditionally have supported permanent grassland for grazing and hay. Over the localised sandstone bands there are free-draining, thinner soils. Arable crops would have been largely confined to these lighter soils.

Ecology

A network of watercourses, often linked with woodland bands, provides the key wildlife habitat in this type. This is reinforced by hedgerows which link isolated patches of habitat in the farmed landscape. On the thin, well-drained soils over sandstone, there are patches of heathy acid grassland with bracken, gorse and occasionally heather.

Bracken also occurs along field boundaries and on road verges.

Tree Cover

Patches of semi-natural woodland, some of ancient origin, are widespread, ranging in size from small remnants to large blocks such as Hardwick Wood near

Streamside flora in woodland

Wingerworth. Historic map evidence suggests that woodland was even more widespread in the 19th century. The irregular outline of the remaining woods indicates the gradual clearance of ancient woodland for agricultural land. On acid soils the woodland is generally upland oakwood containing sessile and pedunculate oak, together with downy and silver birch, holly, rowan and hazel. Some woodlands are dominated by birch, indicating regeneration following past felling. Small areas of wet woodland occur on waterlogged soils of flushed slopes and low-lying ground in the valley bottoms. Such wet woodlands have ash, birch and hazel mixed with alder. Amenity trees are found around farmsteads and other settlement. Near continuous bands of trees, principally alder and willow, line the numerous watercourses. Mature oak and ash trees are found along many hedgerows. The ancient woodland and hedgerow trees are further evidence of a more extensive ancient wooded landscape. These elements combine to form a well-wooded landscape.

Enclosure

This is a landscape of small and medium fields, enclosed by hedgerows which contain a mix of species, including holly, hawthorn, hazel, field maple and ash. The hedgerows often define an irregular field pattern.

This suggests that the fields were cleared directly from woodland and that the woodland trees and shrubs were used to form the hedgerows.

Irregular field pattern suggesting direct clearance from woodland

Thorn hedgerows define more regular field patterns, indicating a later enclosure of open field or extensive woodland clearance. Hazel is often found along with the hawthorn, which reflects the local abundance of woodland saplings to supplement thorn hedgerows.

Transport

There is a network of winding lanes, with irregular width verges. Green lanes and farm tracks supplement the main road network and footpaths connect farmsteads.

Winding lane with irregular width verges

Built Environment

The majority of historic buildings are constructed of local sandstone, roofed with Welsh or stone slates. Farmsteads and groups of cottages are dispersed throughout the landscape. The presence of coal in the area and the expansion of Chesterfield have contributed to widespread development of red brick housing. Of special interest is the development at Wingerworth, on the site of a former country house park, reflecting its former boundaries.

Summary

In this transitional landscape, where the Lower Coal Measures give way to the Millstone Grit Series, the landform is gently rolling, relating to the contrasting bands of mudstone and sandstone. The mudstone dominates and is overlain by seasonally waterlogged soils, with thinner free-draining soils over sandstone. The result is a landscape of permanent pasture and woodland on the heavy soils, with occasional arable fields on the lighter soils. In more recent times, there has been an expansion in arable farming.

Woodland and hedgerow trees are prevalent, creating a well-wooded landscape. Many fields and associated woodlands have irregular shaped boundaries suggesting these originated from woodland clearance.

The dispersed nature of individual farmsteads further suggests clearance by woodland assarting. Some small nucleations do occur and are associated with small areas of former open fields. The country lanes are winding, relating to the undulating topography and form a dense network connecting the isolated farmsteads.

Planting and Management Guidelines

A well-wooded landscape of small, organic woodlands, some of ancient origin, with densely scattered hedgerow and watercourse trees.

Primary woodland character:	Densely scattered small-medium woodlands
Primary tree character:	Densely scattered hedgerow and dense watercourse trees
Woodland vision:	Widespread small-medium woodlands
Tree vision:	Densely scattered hedgerow and dense watercourse trees

Typical woodland size range:	0.5 - 20ha	small-medium
Woodland pattern:	Organic	

- Small-medium scale woodland planting.
- Conserve and restore all ancient woodland sites and restock with locally occurring native species.
- Promote linked extensions to ancient woodland by natural regeneration and planting.
- Ensure the use of indigenous tree and shrub species, including a proportion of large, long-lived species.
- Re-establish and enhance physical links between existing isolated woodland and hedgerows.
- Ensure the management and enhancement of hedgerow trees, through selection and natural regeneration, or by planting.
- Encourage the management of scrub and secondary woodland to link with existing habitats and woodland.
- Enhance the visual and ecological continuity of river corridors by management, natural regeneration and planting of riparian trees.
- Ensure the conservation and management of mature/veteran trees within hedgerows.

Woodland Species Mix

Neutral/Slightly Acidic Soils

Primary Tree Species 50%

Betula pendula	Silver Birch
Betula pubescens	Downy Birch
Quercus petraea	Sessile Oak
Quercus robur	Pedunculate Oak

Secondary Tree Species 20%

Major

Fraxinus excelsior	Ash
Ilex aquifolium	Holly

Minor

Malus sylvestris	Crab Apple
Populus tremula	Aspen
Prunus avium	Wild Cherry
Sorbus aucuparia	Rowan

Shrubs 10-30%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn

Minor

Lonicera periclymenum	Honeysuckle
Viburnum opulus	Guelder Rose

Open space 0-20%

More Acidic Soils

Primary Tree Species 50%

Betula pendula	*Silver Birch*
Betula pubescens	Downy Birch
Quercus petraea	Sessile Oak
Quercus robur	Pedunculate Oak

Secondary Tree Species 20%

Major

Ilex aquifolium	Holly
Sorbus aucuparia	Rowan
Populus tremula	Aspen

Shrubs 10-30%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn

Open space 0-20%

Waterlogged Conditions on all soil types

Primary Tree Species 50%

† *Alnus glutinosa*	Alder
Betula pubescens	Downy Birch
† *Salix caprea*	Goat Willow
† *Salix fragilis*	Crack Willow

Secondary Tree Species 20%

Major

Betula pendula	Silver Birch
Ilex aquifolium	Holly

Minor

Quercus petraea	Sessile Oak
Quercus robur	Pedunculate Oak
Tilia cordata	Small Leaved Lime

Shrubs 10-30%

Major

Crataegus monogyna	Hawthorn
Salix aurita	Eared Willow
Salix cinerea	Grey Willow

Minor

Prunus spinosa	Blackthorn
Rosa canina	Dog Rose
Viburnum opulus	Guelder Rose

Open space 0-20%

† **Watercourse Trees** - tree species most appropriate for planting as watercourse trees.

Hedgerow Species Mix

Suitable hedgerow plants

Primary 70-75%

Crataegus monogyna	Hawthorn

Secondary 25-30%

Acer campestre	Field Maple
Corylus avellana	Hazel
Ilex aquifolium	Holly

Occasional 0-5%

Lonicera periclymenum	Honeysuckle
Viburnum opulus	Guelder Rose

Suitable hedgerow trees

Primary 95-100%

Fraxinus excelsior	Ash
Quercus petraea	Sessile Oak
Quercus robur	Pedunculate Oak

Occasional 0-5%*

Malus sylvestris	Crab Apple
Prunus avium	Wild Cherry
Prunus padus	Bird Cherry
Sorbus aucuparia	Rowan

* only to be used if occurring locally within the landscape character type

Derbyshire Peak Fringe and Lower Derwent

LANDSCAPE TYPE: GRITSTONE HEATHS AND COMMONS

Gritstone hilltops and slopes characterised by geometric and regular field patterns with dry-stone walls or thorn hedges. Sandstone farmsteads are scattered through the landscape, with clustered cottages and roadside dwellings found on enclosed commons.

Key Characteristics

- Hill summits and steep slopes over sandstone
- Thin, well-drained soils over sandstone and heavy, seasonally waterlogged soils over mudstones and glacial drift
- Predominantly pastoral farming, with some arable
- Widespread bracken and localised patches of heathy acid grassland with gorse
- Some plantation woodland and amenity trees around farmsteads
- Sparsely scattered trees along boundaries
- Geometric and regular pattern of fields, bounded by dry-stone walls and some thorn hedgerows
- Few straight roads with uniform width verges
- Scattered sandstone farmsteads with Staffordshire blue clay tile or Welsh slate roofs
- Localised clusters of roadside cottages, situated on historic commons

Geology and Landform

Hard Carboniferous Gritstone underlies this higher ground and defines the steeper slopes to this landscape type. Most of the rocks are part of the Millstone Grit Series of Namurian age. Localised deposits of glacial drift are found over these Namurian rocks.

Soils and Land-Use

Loamy, free-draining brown earths are found over the sandstone bands. These soils are thinner on sloping ground and can become acid under semi-natural vegetation. All soil types inherently support pastoral farming. On the gentler ground, over the mudstone and glacial drift, the soils are clayey loams. These soils are poorly draining and can become waterlogged. Drainage is improved with ditches and the land-use is pastoral with occasional arable farming.

Ecology

Patches of heathy grassland occur on slopes over thin acid soils. These areas may be indicative of the habitat present in the former open commons, with widespread bracken and gorse. Bracken is a common sight along the roadside verges. On gentler slopes the improved grassland and arable offer little floristic interest.

Tree Cover

Tree cover is variable throughout this landscape type, ranging from locally prominent to insignificant. This is a landscape characterised by regular fields as a result of late parliamentary enclosure. Many of the small woodlands would have been planted at the time of enclosure as a resource for the dispersed farmsteads and wayside cottages.

The plantation woodlands tend to be small in size and often regular in outline. The species composition is variable but includes some non-native species like beech. The acid soils inherently support upland oakwood, containing sessile and pedunculate oak, with downy birch, holly, rowan and hazel. Some areas have become more wooded due to the secondary colonisation of abandoned pasture, especially on locally steep slopes. The former open and exposed character of this landscape is evidenced by the presence of a windmill on Heage Common.

Sparsely scattered trees occur along some field boundaries. The density of the boundary trees is variable, tending to be sparse in the areas enclosed from open common, particularly where the boundaries are dry-stone walls. Some areas are enclosed, possibly from woodland or parkland, and tend to have denser boundary trees, many of which are mature. There is little evidence of younger trees growing through to replace them. There are occasional tree groups planted around farmsteads as screens.

Where trees are absent or less apparent there is a strong sense of elevation and there are open views out across lower lying landscapes. In areas where trees are more evident, views through the landscape become filtered.

Enclosure

Although there was some enclosure happening by 1650, this is a landscape that owes much of its character to the later enclosure, by Parliamentary Act and agreement, of former commons and waste. As a result, regular shaped, small to medium fields enclosed by a mixture of dry-stone walls and hedgerows, define the field pattern.

Regular field boundaries reflect late parliamentary enclosure, often from open common

Place names highlight the former presence of commons unambiguously, in the case of Heage Common Farm and Breadsall Common, but also less obviously with such names as White Moor and Moorside.

Some areas, like Chevinside, have a more varied pattern of fields, indicating some older enclosure.

These areas may also have been more wooded prior to enclosure. The presence of hedgerows containing woodland species such as holly, hazel and field maple supports this view. The names Hazlewood and Holly Farm are clearly a reference to formerly wooded areas.

Transport

Most of the lanes, such as Dalley Lane, Morley Lane and Crich Lane are straight with uniform width verges, again indicative of this regular parliamentary enclosed landscape. In sloping areas some of the lanes are winding, avoiding steeper gradients, and some are sunken with more irregular verges. There is also a network of direct footpaths connecting the scattered farms.

Built Environment

Sandstone farmsteads with Staffordshire blue clay tile and Welsh slate roofs are scattered through the landscape. There are localised clusters of dwellings on areas of historic common land. These are sandstone cottages and small farmsteads, situated close to the roads. Red brick is also a common building material, particularly associated with 19th or 20th century houses, usually built adjacent to the lanes.

Summary

Upstanding sandstone bedrock of the Millstone Grit Series has created a large scale rolling landform of sandstone hill summits and steep slopes. Soils show some variation although they are predominantly loamy, free-draining brown earths with thinner, acid soils on the steeper slopes or under semi-natural vegetation. Where localised mudstone and drift are present, the soils are heavier, clayey loams which may be seasonally waterlogged.

Traditionally, the land-use is pastoral, associated with dairying and with localised cropping where soils and landform allow. In more recent years there has been intensification in farming practices with a greater emphasis on arable crops.

Culturally, this landscape has a strong association with former common land and today, the enclosure pattern of small and medium size regular and geometric fields, associated with late parliamentary enclosure, is a key characteristic. These commons may have been characterised by the presence of heathy acid grasslands with scrub and some woodland on the steepest slopes.

The roads crossing these former commons are straight with uniform verges, and with small rows of stone cottages and occasional farmsteads representing former squatter settlement. Often, these later enclosed areas are open with few trees, although tree cover is variable throughout.

Planting and Management Guidelines

Undulating slopes and hilltops with occasional small plantations and tree groups around farmsteads and settlement.

Primary woodland character:	Occasional small plantations
Primary tree character:	Localised amenity tree groups
Woodland vision:	Occasional small plantations
Tree vision:	Localised amenity tree groups

Typical woodland size range:	0.5 - 5ha	small
Woodland pattern:	Regular/ rectangular	

- Ensure the use of indigenous tree and shrub species, including a proportion of large, long-lived species.
- Ensure a balance is maintained between new woodland planting and areas of nature conservation value.
- Conserve and enhance the tree groups that occur within and around rural settlements and isolated farmsteads.
- Where opportunities arise, the removal of coniferous plantation woodland should be encouraged.
- Maintain open character of landscape.

Woodland Species Mix

Neutral/Slightly Acidic Soils

Primary Tree Species 50%

Betula pendula	Silver Birch
Betula pubescens	Downy Birch
‡*Quercus petraea*	Sessile Oak
‡*Quercus robur*	Pedunculate Oak

Secondary Tree Species 20%

Major

‡*Fraxinus excelsior*	Ash
Ilex aquifolium	Holly

Minor

Malus sylvestris	Crab Apple
Populus tremula	Aspen
Prunus avium	Wild Cherry
Sorbus aucuparia	Rowan

Shrubs 10-30%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn

Minor

Lonicera periclymenum	Honeysuckle
Viburnum opulus	Guelder Rose

Open space 0-20%

More Acidic Soils

Primary Tree Species 50%

Betula pendula	*Silver Birch*
Betula pubescens	Downy Birch
‡ *Quercus petraea*	Sessile Oak
‡ *Quercus robur*	Pedunculate Oak

Secondary Tree Species 20%

Major

Ilex aquifolium	Holly
Sorbus aucuparia	Rowan
Populus tremula	Aspen

Shrubs 10-30%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn

Open space 0-20%

‡ **Amenity trees** - tree species most appropriate for planting as amenity trees associated with settlement, or other locally occurring large woodland species.

Derbyshire Peak Fringe and Lower Derwent

LANDSCAPE TYPE: SETTLED FARMLANDS

A gently undulating to rolling pastoral landscape over mixed geology, characterised by densely scattered hedgerow trees and along watercourses. Villages and sparsely scattered farmsteads give the impression of a well-settled landscape.

Key Characteristics

- Gently undulating to rolling upland landscape
- Seasonally waterlogged soils over mixed Carboniferous and Permo-Triassic geology and glacial till
- Dairy farming on permanent pasture and grass leys
- Scattered hedgerow trees, predominantly ash, that provide filtered views
- Dense lines of trees along watercourses
- Small to medium sized semi-regular and strip fields enclosed by hedgerows and occasional dry-stone walls
- Widespread ridge and furrow
- Dense network of winding lanes with irregular width verges
- Discrete villages with buildings of limestone and Staffordshire blue tiles or Welsh slate roofs and scattered outlying farmsteads all creating the sense of a well-settled landscape

Geology and Landform

This is a landscape with a mixed geology, reflecting the transition from the upland limestone in the north to the softer Mesozoic rocks further south. As a result there are outcrops of Carboniferous Limestone and limestone shales around Hognaston Winn. By contrast, the geology just north of Ashbourne is a mix of Permo-Triassic Sandstones and Mudstones. Areas of glacial till cap the underlying hard geology in some areas.

For the most part the resultant landform is gently undulating to rolling, with distinct elevated plateaux where the glacial till and limestone prevail.

Soils and Land-Use

The range of soils is varied but for the most part are fine loams and silts over clayey, slowly permeable subsoils. As a result, many are seasonally waterlogged, making them difficult to cultivate and prone to poaching by livestock.

Over the limestone, the soils are shallow, free-draining loams becoming more calcareous where the soils are thinnest or slopes are locally steep. Where sandstone predominates soils are often free-draining brown earths.

The land-use is predominantly pasture with dairying and stock rearing. Some pasture is improved with grass leys.

Ecology

Much of this agricultural landscape is of little ecological value due to the intensification of farming. However, there are isolated patches of unimproved grassland and hay meadow associated with steeper slopes, which provide local floristic interest. Where the limestone outcrops, around Hognaston Winn, there is localised calcareous grassland.

Terrestrial corridors are important with many well-managed hedgerows. Hedgerow trees, predominantly ash but also oak and sycamore, add to the ecological interest. These corridors are supplemented by a network of watercourses fringed by dense lines of riparian trees. Woodland tends not to be a habitat type in this landscape although there are some localised broadleaved estate woodlands associated with the parkland at Tissington. There are also a number of mature parkland trees that add to its ecological value.

Tree Cover

The gently rolling landform and ease with which this landscape can be farmed ensures that woodland is not generally in evidence. Exceptions to this rule are the small broadleaved estate woodlands associated with the parkland landscape around and including the settlement at Tissington. There are also localised parkland trees including mature lime and horse chestnut.

Despite the lack of woodland, tree cover is well represented throughout due to the densely scattered hedgerow and watercourse trees. Collectively, these trees filter views through the landscape. Over the limestone, where dry-stone walls enclose fields, tree cover is sparser and views more open and distant.

Enclosure

This is a landscape of predominantly small to medium sized semi-regular fields enclosed by hedgerows, although the field size and pattern varies locally, reflecting the diverse history of enclosure. This cultural pattern remains essentially intact, although there has been some field amalgamation in areas of more intensive farming.

Medieval strip fields associated with the nearby village of Brassington

Several examples of strip fields enclosed from former open fields survive, most notably around Brassington and Bradbourne.

These still have evidence of medieval ridge and furrow. They are some of the best examples in the county.

Medieval ridge and furrow

The majority of fields are enclosed by hedgerows, which tend to be predominantly hawthorn, although along lanes and historic boundaries, hedges are more mixed with species like holly and hazel. Dry-stone walls, constructed in limestone, are dominant in some areas, such as at Hognaston Winn. Where walls occur the landscape appears more open and the field pattern is more evident.

Transport

There is a dense network of winding lanes throughout this landscape often with irregular width verges. The exception to this is on the limestone at Hognaston Winn where there is very little access. There are many footpaths and green lanes connecting the small settlements and scattered farmsteads.

Built Environment

This is a well settled but sparsely populated landscape, comprised of villages originating in the medieval period and scattered farmsteads. Villages tend to be small like Bradbourne, Carsington and Hognaston. Where this landscape abuts the limestone, small field barns become a feature of the landscape. Because of the topography and relief, many buildings within it are observed from an elevated viewpoint, emphasising their significance in the landscape.

Brassington Village

The predominant building materials are Carboniferous Limestone with Staffordshire blue clay tiles or Welsh slate for roofing. Towards Ashbourne, red brick becomes more evident and predominates as the main building material.

Tissington has its own particular character, being an estate village set within parkland and accessed via a formal gateway.

Most of the villages have grown little although modern infill development has modified their original loose-knit character. With the intensification of farming practices, there is an increasing demand for large modern barns, which are often poorly designed and sited.

The greatest impact in this landscape type has resulted from the creation of the large reservoir at Carsington, with its associated visitor buildings.

Summary

This is a landscape of fairly diverse geological composition with Palaeozoic, Mesozoic and drift materials, giving rise to a gently undulating to rolling upland landscape. Although there is some local variation in soil, relating to the variations in both geology and landform, they tend to be free-draining fine loams over clay subsoils that are prone to short-lived seasonal waterlogging.

Primarily, this is a cultural landscape shaped by its settlement pattern and land-use. A key feature is its settled character. The area demonstrates human activity from the prehistoric period with evidence of settlement since the Roman period. Many of the villages are certainly early medieval in origin. Although not densely populated, there is a general scattering of small villages and farmsteads throughout, constructed in the local vernacular style of local limestone with Welsh slate or Staffordshire blue clay tile roofs.

The settled nature of this landscape type has ensured that the landscape has been well utilised for agriculture and the predominant land-use is pastoral associated with dairying. Much of the permanent pasture is now improved. This pastoral landscape is defined by small semi-regular and strip fields enclosed by hedges and occasional dry-stone walls. These narrow strip fields have been enclosed from former medieval open field systems and today, historic ridge and furrow is a widespread and visually prominent feature of this landscape type.

Trees are well represented, with scattered hedgerow trees and dense lines of watercourse trees. Woodlands are not a characteristic feature although they occur locally as small estate woodlands around Tissington. Trees help to define the small to medium scale by filtering views through the landscape. Over limestone or where the glacial till creates upstanding plateaux, trees are more sparsely scattered and there is a distinct sense of elevation with views over lower lying land.

Planting and Management Guidelines

A gently undulating pastoral landscape of very few woodlands
but densely scattered hedgerow and watercourse trees.

Primary woodland character:	Unwooded
Primary tree character:	Densely scattered hedgerow and dense watercourse trees.
Woodland vision:	Occasional small woodlands
Tree vision:	Densely scattered hedgerow and dense watercourse trees

Typical woodland size range:	0.5 - 5ha	small
Woodland pattern:	Organic or regular	

- Ensure the use of indigenous tree and shrub species, including a proportion of large, long-lived species.
- Ensure the management and enhancement of hedgerow trees, through selection and natural regeneration, or by planting.
- Enhance the visual and ecological continuity of river corridors by management, natural regeneration and planting of riparian trees.
- Ensure the conservation and management of mature/veteran trees within hedgerows.
- Ensure new woodland does not conflict with features (e.g. ridge and furrow) that help to define landscape character.

Woodland Species Mix

Neutral/Slightly Acidic Soils

Primary Tree Species 50%

Betula pendula	Silver Birch
Betula pubescens	Downy Birch
Quercus petraea	Sessile Oak
Quercus robur	Pedunculate Oak

Secondary Tree Species 20%

Major

Fraxinus excelsior	Ash
Ilex aquifolium	Holly

Minor

Malus sylvestris	Crab Apple
Populus tremula	Aspen
Prunus avium	Wild Cherry
Sorbus aucuparia	Rowan

Shrubs 10-30%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn

Minor

Lonicera periclymenum	Honeysuckle
Viburnum opulus	Guelder Rose

Open space 0-20%

Waterlogged Conditions on all soil types

Primary Tree Species 50%

† *Alnus glutinosa*	Alder
† *Betula pubescens*	Downy Birch
Salix caprea	Goat Willow
† *Salix fragilis*	Crack Willow

Secondary Tree Species 20%

Major

Betula pendula	Silver Birch
Ilex aquifolium	Holly

Minor

Quercus petraea	Sessile Oak
Quercus robur	Pedunculate Oak
Tilia cordata	Small Leaved Lime

Shrubs 10-30%

Major

Crataegus monogyna	Hawthorn
Salix aurita	Eared Willow
Salix cinerea	Grey Willow

Minor

Prunus spinosa	Blackthorn
Rosa canina	Dog Rose
Viburnum opulus	Guelder Rose

Open space 0-20%

† **Watercourse Trees** - tree species most appropriate for planting as watercourse trees

Hedgerow Species Mix

Suitable hedgerow plants

Primary 70-75%

Crataegus monogyna	Hawthorn

Secondary 25-30%

Corylus avellana	Hazel
Ilex aquifolium	Holly

Occasional 0-5%

Lonicera periclymenum	Honeysuckle
Viburnum opulus	Guelder Rose

Suitable hedgerow trees

Primary 70-75%

Fraxinus excelsior	Ash

Secondary 25-30%

Quercus petraea	Sessile Oak
Quercus robur	Pedunculate Oak

Occasional 0-5%*

Malus sylvestris	Crab Apple
Prunus avium	Wild Cherry
Prunus padus	Bird Cherry
Sorbus aucuparia	Rowan

** only to be used if occurring locally within the landscape character type.*

Derbyshire Peak Fringe and Lower Derwent

LANDSCAPE TYPE: RIVERSIDE MEADOWS

Broad, flat flood plains hold meandering rivers, with scattered trees along the river bank. Scattered boundary trees and transport routes punctuate the pastoral landscape.

Key Characteristics

- Flat, broad flood plains containing meandering rivers
- Seasonally waterlogged soils over alluvium
- Low intensity permanent pasture
- Localised patches of rushes in damp hollows
- Scattered, locally dense trees along watercourses, widespread alder and localised willow
- Scattered trees along field boundaries
- Regular shaped fields, bounded by hawthorn hedges
- Lanes along edges or crossing flood plains with gritstone bridges over the rivers
- Railway lines with secondary woodland along embankments
- Historic textile mills

Geology and Landform

This landscape lies on the flood plains of the Derwent and Ecclesbourne Rivers. These flood plains are fairly broad and contain meandering rivers. The underlying sediment consists of alluvial mud lying over gravels deposited by the rivers in times of flood. The gravel acts as an aquifer, carrying water from the adjoining land into the river and so is permanently waterlogged. In places there are natural raised banks to the rivers, called levees. These are formed by the deposition of sediment by floodwaters as they wane.

Soils and Land-Use

The soils are clayey loams that are seasonally waterlogged. Some areas are more permanently waterlogged and some wet hollows retain floodwater long after the majority of the floods have subsided. Some fields around Allestree and Duffield contain ridge and furrow, providing evidence of arable cultivation in the medieval period.

However, the heavy soils and risk of flooding make the flood plain difficult to work for arable cropping.

Subsequent changes in the organisation of agriculture shifted cropping to the better drained soils away from the flood plain, leaving permanent grassland as the dominant land-use.

Ecology

The River Derwent is a fairly wide and deep river along this section, with clean water. The River Ecclesbourne is narrower and has largely unpolluted water, making it very valuable as a freshwater habitat. The wet meadows, found in hollows in the flood plain, remain partly flooded for much of the year. They support marsh vegetation with rushes and are important remnants of a diminishing habitat type.

Further habitat diversity is provided by bands of scrub and secondary woodland that fringe the transport corridors. The stretch of surviving Cromford Canal, from Cromford to Ambergate, is a valuable freshwater habitat. It is not severely silted and supports a profusion of aquatic and marginal vegetation as well as a rich aquatic fauna.

Tree Cover

There are lines of scattered trees along the banks of the rivers, mainly alder but with an occasional willow.

River Ecclesbourne

There are also scattered mature trees, principally oak and ash, along field boundaries. Ornamental parkland trees, such as specimen oak, ash and horse chestnut, extend into this landscape around Duffield. There are pollarded willows in the Ecclesbourne Valley.

The tree cover is greatly intensified by the secondary woodland that occurs beside road and rail links and along the Cromford Canal. This woodland is often dominated by sycamore, which limits its interest as a habitat. Increased woodland here occurs as a consequence of the development of the Derwent Valley as a transport corridor and is not part of its inherent character.

Enclosure

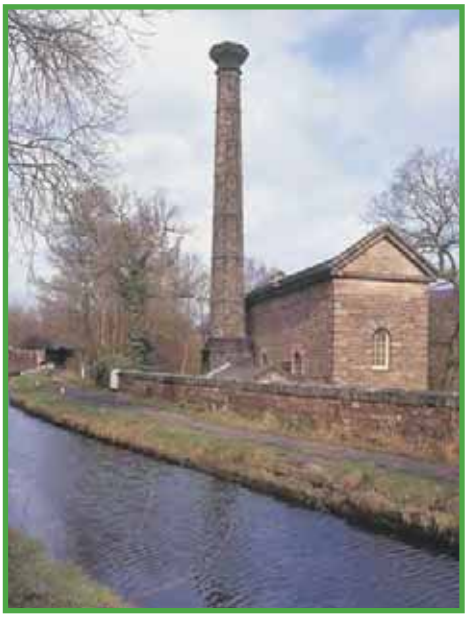
Thorn hedgerows enclose medium sized fields. Many of the boundaries are straight, although some are more curving, indicating earlier enclosure. There are occasional dry-stone walls in the Derwent Valley. A sinuous hedge or wall often defines the edge of the flood plain.

Transport

Lanes in this landscape tend to run along the edge of the flood plain, raised upon embankments to reduce the risk of flooding. Occasionally, roads cross the river upon gritstone bridges. The main Derby to Matlock road follows the route of former turnpike roads. It runs along the Derwent Valley for most of its course and is bounded by gritstone walls.

There is a dense network of direct footpaths crossing the flood plains, connecting the scattered farmsteads along the edges of the valleys. The railways were built in the mid 19th century and followed the flat flood plains, on causeways, through gritstone tunnels and over stone and iron bridges. The railway line in the Ecclesbourne Valley is now restored as a tourist attraction.

The Cromford Canal, which originally ran from Cromford to Langley Mill, opened in 1794. It formed an important transport route for the early industry that developed in the Derwent Valley, although it fell into disuse with the advent of the railways and now stops abruptly at Ambergate.



Leawood Pump House

Built Environment

Historically, there was little built on the flood plain, except for the occasional gritstone water mill for grinding corn, with its associated weir and mill pool. Farmsteads occupied the higher ground to the edge of the valleys, where the risk of flooding was less. There are occasional farmsteads on the slightly higher, better drained areas within the flood plain. Mills and farmsteads were predominantly built of local gritstone with Welsh or occasionally Cumbrian slate roofs.

Richard Arkwright and Jedediah Strutt transformed the role of these river valleys following the building in 1771 of the world's first successful water-powered cotton spinning mill in Cromford.

East Mill, Belper

When their business partnership folded, Arkwright stayed in Cromford while Strutt developed new mills at Belper and Milford. Houses, shops, inns, schools, churches, chapels and farms were built to sustain the mill workers. These, together with the historic transportation infrastructure and watercourses, constitute the Derwent Valley Mills World Heritage Site. At Milford, the mill workers' cottages follow the contours snaking along the valley sides above the mills. There are several distinctive farmsteads built by the Strutts in the area.

Summary

The lower reaches of the Derwent and Ecclesbourne Rivers flow through broad flood plains. The meandering rivers have deposited alluvial materials during times of flood, the resultant soils being heavy, clay loams prone to prolonged seasonal waterlogging.

These soils have traditionally supported meadowlands grazed by cattle. However, there is evidence of ridge and furrow suggesting that, in medieval times, some crops may have been grown on a small scale. Fields tend to be medium sized and enclosed by thorn hedgerows. These boundaries are often straight but some are curved, possibly reflecting some of these earlier medieval strips.

The flood plain is open although there are mature hedgerow trees, predominantly oak and ash, with scattered groups, usually alder, along the riverbanks.

Due to the risk of flooding, this landscape would have been unsettled although some modern housing estates now extend into the flood plain. Lanes are scarce and tend to cut across the flood plains. Major roads and railway lines, constructed on embankments, are located at its edges.

Planting and Management Guidelines

An open flood plain with dense watercourse trees.

Primary woodland character:	Unwooded
Primary tree character:	Thinly scattered hedgerow and dense watercourse trees
Woodland vision:	Occasional small wet woodlands
Tree vision:	Thinly scattered hedgerow and dense watercourse trees

Typical woodland size range:	0.5 - 5ha	small
Woodland pattern:	Organic/ linear	

- Ensure the use of indigenous tree and shrub species, including a proportion of large, long-lived species.
- Ensure the balance is maintained between new woodland planting and areas of nature conservation value.
- Enhance the visual and ecological continuity of river corridors by management, natural regeneration and planting of riparian trees.

Woodland Species Mix

Waterlogged Conditions on all soil types

Primary Tree Species 50%

† *Alnus glutinosa*	Alder
Betula pubescens	Downy Birch
Salix caprea	Goat Willow
Salix fragilis	Crack Willow

Secondary Tree Species 20%

Major

Betula pendula	Silver Birch
Ilex aquifolium	Holly

Minor

Quercus petraea	Sessile Oak
Quercus robur	Pedunculate Oak
Tilia cordata	Small Leaved Lime

Shrubs 10-30%

Major

Crataegus monogyna	Hawthorn
Salix aurita	Eared Willow
Salix cinerea	Grey Willow

Minor

Prunus spinosa	Blackthorn
Rosa canina	Dog Rose
Viburnum opulus	Guelder Rose

Open space 0-20%

† **Watercourse Trees** - tree species most appropriate for planting as watercourse trees

Hedgerow Species Mix

Suitable hedgerow plants

Primary 85-100%

Crataegus monogyna	Hawthorn

Occasional 0-5%

Corylus avellana	Hazel

Suitable hedgerow trees

Primary 95-100%

Fraxinus excelsior	Ash
Quercus petraea	Sessile Oak
Quercus robur	Pedunculate Oak

Occasional 0-5%*

Malus sylvestris	Crab Apple
Prunus avium	Wild Cherry
Prunus padus	Bird Cherry
Sorbus aucuparia	Rowan

** only to be used if occurring locally within the landscape character type.*

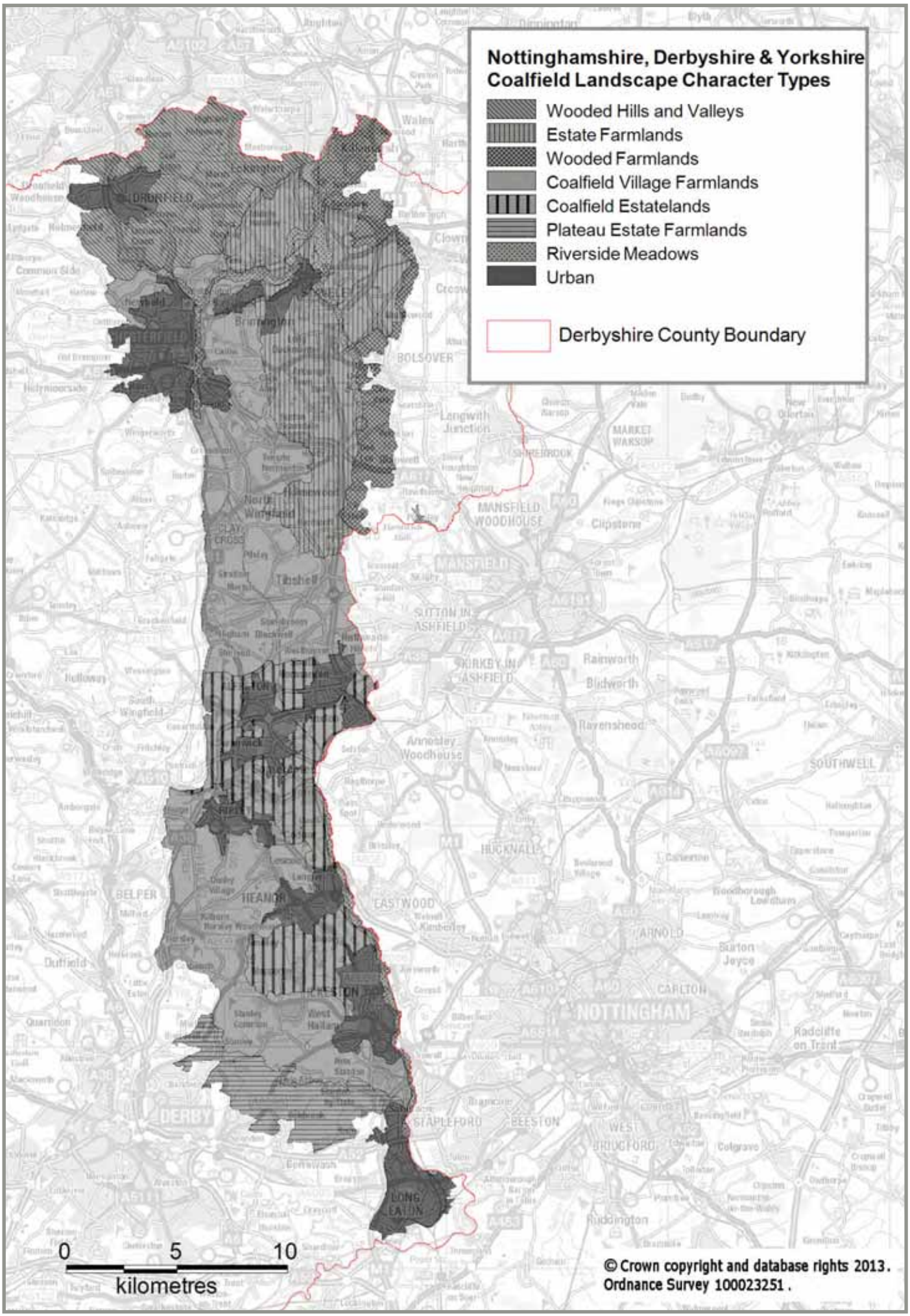
Part One: Landscape Character Descriptions

4. Nottinghamshire, Derbyshire and Yorkshire Coalfield

Landscape Character Types

- Wooded Hills and Valleys 4.5
- Estate Farmlands 4.9
- Wooded Farmlands 4.13
- Coalfield Village Farmlands 4.17
- Coalfield Estatelands 4.21
- Plateau Estate Farmlands 4.25
- Riverside Meadows 4.29

DERBYSHIRE County Council
Improving life for local people


Nottinghamshire, Derbyshire & Yorkshire Coalfield Landscape Character Types
Wooded Hills and Valleys
Estate Farmlands
Wooded Farmlands
Coalfield Village Farmlands
Coalfield Estatelands
Plateau Estate Farmlands
Riverside Meadows
Urban
Derbyshire County Boundary
0
5
10
kilometres
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Ordnance Survey 100023251.

Nottinghamshire, Derbyshire and Yorkshire Coalfield

CHARACTER AREA 38

Densely settled and industrial lowland characterised by mining settlements, mixed farming and woodland.

Landscape Character Types

- Wooded Hills and Valleys
- Estate Farmlands
- Wooded Farmlands
- Coalfield Village Farmlands
- Coalfield Estatelands
- Plateau Estate Farmlands
- Riverside Meadows

"The trucks thumped heavily past ... as she stood ... trapped between the jolting black waggons and the hedge; then they curved away towards the coppice where the withered oak leaves dropped noiselessly, while the birds ...; made off into the dusk that had already crept into the spinney ... The fields were dreary and forsaken, and in the marshy strip that led to the whimsy, a reedy pit-pond, the fowls had already abandoned their run among the alders ... The pit-bank loomed up beyond the pond, flames like red sores licking its ashy sides, in the afternoon's stagnant light."

p98 D. H. Lawrence 'Odour of Crysanthemums'

Introduction

The Derbyshire Coalfield is located in the east of the county, stretching from the outskirts of Sheffield in the north, to the Trent Valley in the south and is a broad belt of low-lying land, approximately 10km wide and 45km in length. It forms part of the greater Nottinghamshire, Derbyshire and Yorkshire Coalfield region, which embraces the major industrial centres of Sheffield, Wakefield and Leeds. The Derbyshire Coalfield character area exhibits physical, historical and ecological characteristics that are similar throughout most of its landscape types.

Physical Influences

The geology of the Derbyshire Coalfield was formed in extensive swamps on the edge of a warm tropical sea 350 million years ago. A process of vegetation growth and sediment deposition occurred as the land subsided and the sea repeatedly inundated the land. The rhythmic process is now fossilised in the alternating bands of sandstone, shale (compacted clay), mudstone and coal (ancient peat), known collectively as Coal Measures. These rock layers were then uplifted, folded and over time eroded away to form the characteristic ridges (sandstone) and valleys (shale, mudstone and coal) seen in the region.

There are two major subdivisions to the Coal Measures, the Middle and Lower Series. The Middle Series consists of narrow bands of sandstone and many coal seams. It encompasses the majority of the Coalfield region, creating a broadly undulating landscape of small ridges and valleys. The Lower Series consists of greater amounts of sandstone and fewer seams of coal. It occurs towards the north-western edge of the Coalfield defining the *Wooded Hills & Valleys* where it forms rising ground.

The Coalfield soils are predominantly heavy, seasonally waterlogged, and traditionally support dairy farming. In places, where soils are free-draining over sandstone, there is a stronger presence of arable cropping.

Natural Influences

Widespread industrialisation in the coalfield has severely altered the landscape's visual and ecological integrity, yet the underlying natural character remains evident and distinctive. Many habitats within the coalfield are small fragmented remnants of the pre-industrial landscape. A few have come about through recent changes created by coal mining and dereliction.

Ancient semi-natural woodland is a key characteristic of the *Wooded Hills & Valleys* but also occurs as isolated relic patches in other parts of the area. Defined by irregular outlines and with mixed broadleaved tree species, woodland is associated with the steeper slopes or valley bottoms where soils have been difficult to cultivate. Some areas may have remained heavily wooded well into the medieval period. Place names like Horsley Woodhouse indicate late settlements formed in woodland assarts. Elsewhere, the occurrence of semi-natural woodland is patchy. In some cases the replanting of commercial conifers has obscured ancient origins and provides limited wildlife value. Although ancient woodland is not extensive, the existence of mature oak trees in hedgerows may represent remnants of a once more extensive ancient wooded landscape. As a key characteristic in the *Wooded Hills & Valleys* and *Wooded Farmlands*, mature oak trees are often associated with older field boundaries. Elsewhere, the occurrence of mature oaks in hedgerows is more fragmented.

Plantations are characterised by their regular outline and mix of broadleaved and coniferous tree species. Though of less value to wildlife than broadleaved woodland, mixed plantations are a key characteristic within many estate landscapes including the *Coalfield Estatelands, Plateau Estate Farmlands* and to a lesser extent *Estate Farmlands*.

Secondary woodland and scrub provide additional habitat and are well represented throughout the area, often occurring along railway embankments, road verges and in derelict and industrial wastelands. Delineating man-made elements, many of these habitats are isolated or poorly connected with other habitats. Plantations of young trees are also a feature in many landscapes, particularly the *Coalfield Village Farmlands* and *Coalfield Estatelands*, where former open cast coal sites have been restored.

Although there are few remaining areas of heathland, the underlying geology, particularly the occurrence of sandstone, enables 'heathy' habitats to occur in places. In the past these would have been more widespread, occurring on the ridges, hill summits and on the steeper slopes. Place names like Heather Lee and Moor Top indicate this former habitat. Patches of 'heathy' vegetation remain in the *Wooded Hills & Valleys*, and occur locally in other parts of the area.

Parkland is an important habitat in the *Coalfield Estatelands* and *Plateau Estate Farmlands*, but occurs as isolated features within other landscape character types.

The Coal Measures give rise to poor soils which traditionally support pasture for dairy farming with localised arable cropping. Arable cropping predominates within the *Estate Farmlands* although most of the coalfield remains essentially pastoral. This pattern is becoming more variable with the balance shifting towards arable farming in some areas. Pasture is important in the region because it can potentially support many different habitats. Although current farming practices tend to inhibit ecological diversity, fields occupying steeper slopes or on heavier, waterlogged soils are often left unimproved. Thus in the *Wooded Farmlands* and *Wooded Hills & Valleys*, as well as in other landscape types locally, there remain valuable grassland habitats. Some are species-rich, others are damp rush pasture supporting ground nesting birds.

Rivers, streams and wetland are important habitats in the area, often of county importance for wildlife. Within the *Riverside Meadows*, and locally in other landscape types, habitats created by mining subsidence, derelict canals and abandoned industry are a particular characteristic.

Waterbodies created by mining subsidence

Due to industrial pollution in the past, their condition has been seriously affected, although in recent years the situation has improved. Development adjacent to river courses has led to fragmentation of habitats.

Human Influences

Clearance of the original forests led, by medieval times, to a landscape of villages, hamlets and scattered farmsteads, with former common land characterised by small clusters of wayside cottages. Open fields were created around settlements in the east with more irregular woodland clearance further to the west. Hunting forests and deer parks were established, which along with the open fields and commons, were gradually enclosed, privately at first, and later by Parliamentary Enclosure Acts. The field pattern is variable throughout the area reflecting this diverse history of enclosure.

Village buildings were constructed of local sandstone and have Staffordshire blue clay tiles or Welsh slate roofs. Mature tree groups are often associated

with villages and help create their distinctive character. Most settlements were subject to industrial expansion in the 19th century, developing rapidly to house the new industrial population. Historic villages were subsumed by colliery workers' red brick terraces, although most still retain their historic core.

More recent development has extended these settlements further and large housing and industrial estates have led to the amalgamation of some villages into larger urbanised areas. This is most evident in *Coalfield Estatelands*, causing them to lose their individual identities.

Industrial urbanisation

Within the proximity of Chesterfield and Derby, satellite settlements have also developed. Villages remain a key characteristic of the *Coalfield Village Farmlands* but, with the demise of the mining industry, there are intense pressures for further development and historic settlement patterns are rapidly becoming overlain and disguised by modern development.

The landscape is rich in industrial archaeology resulting from exploitation of underlying minerals and, in particular, coal. The coal mining industry developed dramatically, relying initially on canals and roads and then on the expanded railway network system for transport. Industrial remains include bell-pits, colliery spoil, old railways and tramways, canals and bridges. Although coal mining and heavy manufacturing have declined, new industrial activity is evident with the expansion of light industry, technology and related industries. In the north, woodlands often contain evidence of former industry associated with coal and ironstone mining, also woodland industries like charcoal and whitecoal production.

Morton tip

The older road network is simple yet extensive, with narrow lanes connecting the many villages and farms scattered throughout the landscape. Where the topography dictates, the lanes are often winding with irregular width verges. These historic lanes retain a distinctive rural character, but many are inadequate for the volume of traffic they carry, and are now being subjected to road improvements. Modern roads, in contrast, superimpose their large structures on to the landscape. Often delineated by ribbon development, they truncate older routes and disregard local boundaries. The M1 motorway in particular, has had a major impact on the surrounding countryside truncating many east to west routes.

Other Considerations

- The Lowland Derbyshire BAP

Nottinghamshire, Derbyshire and Yorkshire Coalfield

LANDSCAPE TYPE: WOODED HILLS AND VALLEYS

A broadly undulating upland with a strongly wooded character, defined by woodland, mixed farming and sparsely scattered settlement.

Key Characteristics

- Upland area with broadly undulating topography
- Moderately steep slopes, becoming steeper along stream valleys
- Mixed farming, predominantly pasture
- 'Heathy' vegetation visually prominent in many road verges
- Densely scattered patches of ancient, semi-natural woodland
- Woodland bands along stream valleys and on steep slopes
- Dense riverside trees and scattered mature hedgerow trees
- Medium to large fields, enclosed by hedgerows
- Late enclosure on hill summits
- Network of small irregular lanes
- Sparsely scattered settlement of farmsteads and hamlets

Geology and Landform

In close proximity to the Peak District the landform is higher and broadly undulating, dissected by moderately steep valleys. The underlying Lower Coal Measure Series consist predominantly of massive sandstone and mudstone. There are localised seams of coal that outcrop in this area, some of which have been worked out many years ago. Typically small scale operations, these mines now have little impact on the wider landscape.

Soils and Land-Use

Broad rounded hills and free-draining sandstone soils have created a mixed farming landscape. Geographical variations in landform have influenced the prevailing land-use so that pasture is dominant in the steeper, more undulating land to the north and west, and arable cropping is more widespread in the gentler, lower lying land in the south and east.

Ecology

The undulating topography and steep valley slopes provide considerable ecological diversity. Despite the immense pressures of development, with Sheffield abutting this landscape character type to the north, the area has remained essentially rural and intact. Ancient, semi-natural woodland persists in many areas, particularly notable in the Moss Valley, which has been designated as a Conservation Area. In the valleys the low intensity pastoral farming, watercourse and woodland bands create important habitat corridors. A good network of hedgerows and hedgerow trees still prevails, but it is becoming patchy in areas of intensive arable cropping. There is evidence of 'heathy' vegetation with widespread bracken and localised gorse along road verges, on the steeper slopes, and hill summits.

Heathy vegetation - gorse and bracken

Place names such as Moortop Farm and Heatherlee Farm make reference to their former character. Now only remnants, heathland habitats probably once covered much larger areas.

Tree Cover

Ancient woodland and mature hedgerow trees are a key characteristic in this landscape type, creating a strongly wooded landscape further emphasised by undulating topography. Many patches of ancient semi-natural and wet woodland persist on steeper slopes or along valleys, where the steep gradient and poor soils have inhibited farming. The woodlands tend to be small to medium in size, with irregular outlines. The typical range of upland broadleaved trees are characteristic, with alder being particularly common in wet woodlands. Older hedgerows of holly and hazel are widespread in the north-west with mature oak trees as strong visual components. The ancient woodland and hedgerow trees may be indicative of a more extensive ancient wooded landscape. Oak and ash trees are found scattered along most hedges. In the south-east, thorn hedgerows prevail. Beside streams on gentle slopes, there is usually a continuous line of trees, mostly alder. There are localised areas of higher ground, which are sparsely wooded. As a result, these areas exhibit a very distinctive open character in contrast to the rest of the landscape.

Enclosure

This is a landscape of medium to large fields enclosed by hedgerows of a semi-regular to regular pattern. Thorn hedgerows dominate, but there are also many mixed species hedgerows associated with older field boundaries. The presence of holly, as a major component in these hedgerows, is particularly noticeable. Within this landscape there are distinctive areas of former common, now enclosed and farmed. Usually occupying the higher ground, these areas exhibit a regular field and road layout characteristic of late parliamentary enclosure. There is occasional dry-stone walling in gritstone.

Transport

Due to the rural character of the landscape, roads are few and tend to be narrow and winding, occasionally sunken on the steeper slopes. The construction of the A61 linking Chesterfield with Dronfield and Sheffield has truncated many of these older lanes.

Built Environment

This essentially rural landscape exhibits three distinctive settlement patterns; in the north and north-west there are many scattered farmsteads, whilst in the south and south-east, settlement is predominantly nucleated with hamlets and small villages. There are also localised clusters of houses, associated with former commons, but which are now enclosed and farmed, and occasionally small water-powered corn mills and metal industry workshops, particularly in the northern valleys. Traditional buildings are constructed of Coal Measure Sandstone with Welsh and stone slate roofs.

This landscape was important for early industry, particularly edge tool making and iron and coal working. The valleys, especially the Moss Valley, have much surviving evidence of these industries and their water management systems. Woodlands also contain evidence of associated industries such as charcoal burning and white coal production.

Summerley Colliery coke oven

Summary

The Wooded Hills and Valleys landscape character type is a broadly undulating upland area dissected by small streams. Mixed farming predominates with pasture and arable cropping occupying the north-west and south-east respectively. The undulating topography and steep valley slopes have helped preserve numerous patches of ancient, semi-natural woodland. Mature hedgerows and watercourse trees further emphasise this strongly wooded character and may be indicative of a more extensive ancient wooded landscape. Significant ecological interest exists in association with the diversity of tree cover and steep slopes.

Late enclose is a feature on hill summits, with sparse tree cover creating an open character. In the wider landscape, a semi-regular to regular field pattern exists.

Settlement is sparsely scattered with farmsteads, hamlets and small villages connected by a simple network of small winding lanes. Despite the immense pressures of development with Sheffield abutting to the north, as a result of planning constraints, the landscape has remained essentially rural and intact.

Planting and Management Guidelines

An undulating landscape with many semi-natural woodlands, some of ancient origin, along steep slopes and valley sides with scattered hedgerow and watercourse trees.

Primary woodland character:	Densely scattered small-medium woodlands
Primary tree character:	Densely scattered hedgerow trees, dense watercourse trees and localised amenity tree groups.
Woodland vision:	Widespread small-medium woodlands
Tree vision:	Densely scattered hedgerow trees, dense watercourse trees and localised amenity tree groups.

Typical woodland size range:	0.5 - 20ha	small-medium
Woodland pattern:	Organic/linear	

- Small-medium scale woodland planting.
- Conserve and restore all ancient woodland sites and restock with locally occurring native species.
- Promote linked extensions to ancient woodland by natural regeneration and planting.
- Ensure the use of indigenous tree and shrub species, including a proportion of large, long-lived species.
- Re-establish and enhance physical links between existing isolated woodland and hedgerows.
- Ensure the management and enhancement of hedgerow trees, through selection and natural regeneration, or by planting.
- Encourage the management of scrub and secondary woodland to link with existing habitats and woodland.
- Conserve and enhance the tree groups that occur within and around rural settlements and isolated farmsteads.
- Enhance the visual and ecological continuity of river corridors by management, natural regeneration and planting of riparian trees.
- Where opportunities arise, the removal of coniferous plantation woodland should be encouraged.
- Ensure the conservation and management of mature/veteran trees within hedgerows.

Woodland Species Mix

Neutral/Slightly Acidic Soils

Primary Tree Species 50%

Betula pendula	Silver Birch
‡ *Quercus petraea*	Sessile Oak
‡ *Quercus robur*	Pedunculate Oak

Secondary Tree Species 20%

Major

Betula pubescens	Downy Birch
‡ *Fraxinus excelsior*	Ash
Ilex aquifolium	Holly

Minor

Sorbus aucuparia	Rowan
Acer campestre	Field Maple

Shrubs 10-30%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn

Minor

Frangula alnus	Alder Buckthorn
Prunus spinosa	Blackthorn
Rosa canina	Dog Rose
Viburnum opulus	Guelder Rose

Open space 0-20%

More Acidic Soils

Primary Tree Species 50%

Betula pendula	Silver Birch
Betula pubescens	Downy Birch
Quercus petraea	Sessile Oak
Quercus robur	Pedunculate Oak

Secondary Tree Species 20%

Major

Ilex aquifolium	Holly
Sorbus aucuparia	Rowan

Shrubs 10-30%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn
Rosa canina	Dog Rose

Open space 0-20%

Waterlogged Conditions on all soil types

Primary Tree Species 50%

† *Alnus glutinosa*	Alder
Salix fragilis	Crack Willow

Secondary Tree Species 20%

Major

Betula pubescens	Downy Birch
Ilex aquifolium	Holly
Quercus petraea	Sessile Oak

Minor

Populus tremula	Aspen
Salix caprea	Goat Willow
Sorbus aucuparia	Rowan

Shrubs 10-30%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn
Salix cinerea	Grey Willow

Minor

Prunus spinosa	Blackthorn
Viburnum opulus	Guelder Rose

Open space 0-20%

† **Watercourse Trees** - tree species most appropriate for planting as watercourse trees.

‡ **Amenity Trees** - tree species most appropriate for planting as amenity trees associated with settlement, or other locally occurring large woodlands species.

Hedgerow Species Mix

Suitable hedgerow plants

Primary 70-75%

Crataegus monogyna	Hawthorn

Secondary 25-30%

Corylus avellana	Hazel
Ilex aquifolium	Holly
Prunus spinosa	Blackthorn

Occasional 0-5%

Frangula alnus	Alder Buckthorn
Rosa canina	Dog Rose
Viburnum opulus	Guelder Rose

Suitable hedgerow trees

Primary 70-75%

Fraxinus excelsior	Ash
Quercus petraea	Sessile Oak
Quercus robur	Pedunculate Oak

Occasional 25-30%

Acer campestre	Field Maple

Occasional 0-5%

Sorbus aucuparia	Rowan

* only to be used if occurring locally within the landscape character type

Nottinghamshire, Derbyshire and Yorkshire Coalfield

LANDSCAPE TYPE: ESTATE FARMLANDS

A broad, gently undulating landscape characterised by mixed farming and sparse tree cover.

Key Characteristics

- Broad, gently undulating landform
- Mixed farming dominated by arable cropping
- Localised woodland blocks and occasional trees
- Hedgerows enclose medium size, semi-regular fields
- Small villages, hamlets and scattered farmsteads constructed from local Coal Measures Sandstone, some expanded with red brick former mining terraces
- Open landscape with long distance views

Geology and Landform

Formed by the Middle Coal Measure Series, the landform of low ridges and valleys reflect the alternating bands of sandstone, shale, mudstone and coal. This landscape is visibly broader and more gently undulating than other parts of the coalfield.

Soils and Land-Use

These soils have traditionally supported a mixed farming system, but owing to the gentle and more subdued landform, arable cropping has dominated. Pastoral land is a local occurrence reflecting slightly greater undulations in landform and is particularly notable in the south. Pasture also exists around Renishaw Park and Stainsby, which may indicate the influence of traditional estate management.

Ecology

This landscape is ecologically poor owning to intensive arable cropping, coal mining, lack of tree cover and urban expansion. Broad tracts of land, which were mined for coal, have now been restored. Converted to farming or woodland and managed within a country park, they offer limited ecological interest at this early stage. Small woodlands offer limited value due to their mixed species composition and their isolated occurrence. Renishaw Park in the north still supports valuable semi-natural habitats. The spread of housing development is also having an impact, for example around Staveley, most notably at Hollingwood Estate where the urban fringe is engulfing many important habitat areas.

Tree Cover

There is a paucity of tree cover within this landscape. The few trees that are to be found, principally ash with the occasional oak, are sparsely scattered along thorn hedgerows. Scattered trees occur along most watercourses and are comprised of willow with some alder. The distinct lack of trees, allied with the gentle relief, creates an open landscape with long distance views interrupted only by landform. Where woodlands do occur, they form small woodland blocks, remnants from an estate managed landscape. Patches of ancient semi-natural woodland are often associated with locally steep slopes, becoming visually prominent around Heath and north of Temple Normanton. The restoration of former colliery sites, as seen at Poolsbrook, has resulted in the creation of new woodland.

Enclosure

Fields are generally medium in size with a semi-regular to regular field pattern bounded by thorn hedgerows. Many parts have been affected by open cast coal extraction, particularly in the north. Restoration schemes have created large fields laid out in a more regular pattern.

Transport

The traditional pattern is simple with narrow, winding lanes connecting small villages and farmsteads. The M1 motorway has interrupted and severed east-west routes throughout this landscape. Not only visually intrusive, the motorway and link roads have attracted further urbanisation. The landscape contains a number of railway lines left derelict after the coal industry declined. Some of these have now been restored as multi-user routes for walkers, cyclists and horse riders.

Built Environment

The traditional settlement pattern is characterised by small villages, hamlets and scattered farmsteads.

Traditionally built cottages at Heath

Heath, Hardstoft and Sutton Scarsdale are good examples of historic villages that have retained many traditional buildings.

Other settlements, like Barrow Hill, were purpose built to accommodate the local coal mining and iron-working labour force. The red brick terraces and factories impart a distinctive character, contrasting with older villages constructed of local Coal Measure Sandstone with Welsh slate or red clay pantile roofs. More recently, there has been an expansion of modern housing estates, most noticeably at Brimington and Staveley. Now satellite settlements to Chesterfield, they are under considerable development pressures and continue to encroach into the countryside.

Summary

The Estate Farmlands landscape character type is a broad, gently undulating and industrial landscape. The soils have traditionally supported a mixed farming system but, owing to the gently rolling landform, arable farming has dominated.

A distinct lack of hedgerow trees, allied to the gentle relief, has created an open landscape with long distance views only interrupted by landform. Being an intensively managed landscape, it has little ecological value. Blocks of woodland occur locally but often only contain coniferous species.

Red brick former mining terraces are a distinctive attribute of many villages. Essentially rural in character, the Estate Farmlands have, in the past, been severely impacted upon by industrialisation such as open casting for coal, development of major transport routes and expansion of villages.

Since the decline of the coal industry, the area is still under pressure from new development and this is likely to continue to impact on the rural character of the landscape.

Planting and Management Guidelines

An open arable landscape with very few trees and woodlands.

Primary woodland character:	Thinly scattered small plantations and occasional remnant ancient woodlands
Primary tree character:	Scattered watercourse trees and localised amenity tree groups
Woodland vision:	Occasional medium-large plantations
Tree vision:	Scattered watercourse trees and localised amenity tree groups

Typical woodland size range:	15 - 35ha	medium-large
Woodland pattern:	Regular plantations	

- Medium to large scale woodland planting.
- Re-establish and enhance physical links between existing isolated woodland and hedgerows.
- Conserve and enhance the tree groups that occur within and around rural settlements and isolated farmsteads.

Woodland Species Mix

Neutral/Slightly Acidic Soils

Primary Tree Species 50%

Betula pendula	Silver Birch
‡ *Quercus petraea*	Sessile Oak
‡ *Quercus robur*	Pedunculate Oak

Secondary Tree Species 20%

Major

Betula pubescens	Downy Birch
‡ *Fraxinus excelsior*	Ash
Ilex aquifolium	Holly

Minor

Sorbus aucuparia	Rowan
Acer campestre	Field Maple

Shrubs 10-30%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn

Minor

Frangula alnus	Alder Buckthorn
Prunus spinosa	Blackthorn
Rosa canina	Dog Rose
Viburnum opulus	Guelder Rose

Open space 0-20%

Waterlogged Conditions on all soil types

Primary Tree Species 50%

† *Alnus glutinosa*	Alder
† *Salix fragilis*	Crack Willow

Secondary Tree Species 20%

Major

Betula pubescens	Downy Birch
Ilex aquifolium	Holly
Quercus petraea	Sessile Oak

Minor

Populus tremula	Aspen
Salix caprea	Goat Willow
Sorbus aucuparia	Rowan

Shrubs 10-30%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn
Salix cinerea	Grey Willow

Minor

Prunus spinosa	Blackthorn
Viburnum opulus	Guelder Rose

Open space 0-20%

† **Watercourse Trees** - tree species most appropriate for planting as watercourse trees.

‡ **Amenity Trees** - tree species most appropriate for planting as amenity trees associated with settlement, or other locally occurring large woodland species.

Hedgerow Species Mix

Suitable hedgerow plants

Primary 70-75%

Crataegus monogyna	Hawthorn

Secondary 25-30%

Acer campestre	Field Maple
Corylus avellana	Hazel
Ilex aquifolium	Holly
Prunus spinosa	Blackthorn

Occasional 0-5%

Frangula alnus	Alder Buckthorn
Rosa canina	Dog Rose
Viburnum opulus	Guelder Rose

Suitable hedgerow trees

Primary 70-75%

Fraxinus excelsior	Ash
Quercus petraea	Sessile Oak
Quercus robur	Pedunculate Oak

Secondary 25-30%

Acer campestre	Field Maple

Occasional 0-5%*y

Sorbus aucuparia	Rowan

* only to be used if occurring locally within the landscape character type

Nottinghamshire, Derbyshire and Yorkshire Coalfield

LANDSCAPE TYPE: WOODED FARMLANDS

A small scale undulating landscape rising to the magnesian limestone plateau. Characteristically well-wooded, sparsely settled and dominated by mixed farming.

Key Characteristics

- Gently undulating landform on land rising to the magnesian limestone plateau
- Mixed farming with pasture and occasional arable cropping
- 'Heathy' vegetation associated with steeper slopes
- Prominent tree cover with dense watercourse trees and scattered hedgerow trees
- Species-rich hedgerows and trees associated with older boundaries
- Ancient enclosure and remnant medieval strip fields
- Sparsely scattered farmsteads and wayside cottages

Geology and Landform

The Wooded Farmlands are sited on a scarp slope which rises to the magnesian limestone plateau approximately 170m above sea level. For the most part, the slope is gently undulating, reflecting the underlying Middle Coal Measure Series. However, in the south and around Bolsover, the scarp slope is distinctly steeper. The combination of rising ground and undulating landform has created a small scale landscape with restricted views to the east. Associated with the steeper slopes, views are often panoramic towards the west.

Soils and Land-Use

Pasture is the primary land-use throughout this landscape. Arable cropping becomes more widespread at the foot of the scarp slope and on the gentler slopes in the north. In the south particularly, the steep scarp slope has hindered industrial development and this may account for the extent of tree cover. In recent years, open cast coal extraction, housing and industrial development has affected many low-lying areas in the north, particularly around Renishaw.

Ecology

The steep scarp slopes and heavy soils have impeded farming practices, enabling the mature tree cover to survive in many places. Small remnants of ancient semi-natural woodland are of particular importance within this landscape. There is localised heathy vegetation on steep slopes. Now only relict, this vegetation suggests a former, more extensive habitat. Traditional parkland, associated with Hardwick Hall and Balborough Hall, also provides significant woodland and other semi-natural habitats.

Tree Cover

This is a well-wooded landscape consisting of trees, hedgerows and small woodlands. Densely scattered willow trees occur along watercourses with scattered mature hedgerow trees of oak and ash. Holly and elm hedgerows are well represented in the south and near Barlborough in the north. A strong component in many historic boundaries, they may indicate a previously more extensive wooded landscape. Small ancient semi-natural woodlands are found

clinging to steep slopes or along minor tributary valleys. The undulating landform and tree cover help to filter or block views through the landscape.

Enclosure

There is a wide variation in field pattern, reflecting the diverse history of enclosure. Ancient enclosures with irregular shaped fields are particularly prominent to the south of Bolsover.

Irregular field patterns indicate ancient enclosure

Remnants of medieval strip fields are associated with the fringes of some villages, seen clearly at Killamarsh and south of Clowne.

Fossilised strip fields associated with the nearby village of Killamarsh

Some medium size, semi-regular to regular fields occur at the foot of the scarp slope and in the north. The amalgamation of smaller field units for arable use may be accountable for these patterns.

Transport

Few roads cross this landscape. Lanes tend to be narrow, winding and often sunken, with irregular width verges.

Built Environment

This landscape is traditionally sparsely settled with only scattered farmsteads constructed from the local Coal Measure Sandstone with Welsh slate or red clay pantile roofs. However, the post-war development of Bolsover and Glapwell has led to the expansion of these villages into this landscape type. The development of Doe Lea and Bramley Vale as mining settlements, further impacts upon the traditional settlement pattern. Former mining activity is still evidenced by colliery tips at Bolsover and Glapwell although these are now largely reclaimed.

Bolsover Castle, located at the top of the scarp slope to the magnesian limestone plateau, is an imposing landmark overlooking this landscape character type.

Summary

Situated on the scarp slope, which rises towards the magnesian limestone plateau, the Wooded Farmlands is a small scale undulating landscape.

Heavy soils, together with steep slopes, have minimised agricultural improvements, retaining the inherent pastoral land-use, mature hedgerow trees, dense watercourse trees and small woodlands. The mature tree cover gives the impression of a well-wooded landscape with many views being blocked or filtered by trees. Elm and holly hedgerows with mature oak trees are well represented and may indicate a previously more extensive ancient wooded landscape. The mature character of the tree cover in this landscape is of particular importance for nature conservation.

The landscape is characterised by old field enclosures with small to medium fields and an irregular to semi-regular field pattern. Remnant medieval strip fields are particularly distinctive around the fringes of some villages located on the limestone plateau.

Sparsely scattered sandstone farmsteads are the traditional settlement pattern. Although the mining industry has had a major impact upon this landscape character type, predominately in the form of spoil heaps and urban expansion, the area as a whole maintains a degree of visual unity with many field boundaries still intact.

Planting and Management Guidelines

A well-wooded landscape of small, organic woodlands, some of ancient origin, with scattered hedgerow and dense watercourse trees.

Primary woodland character:	Thinly scattered small woodlands
Primary tree character:	Thinly scattered hedgerow trees and dense watercourse trees
Woodland vision:	Widespread small-medium woodlands
Tree vision:	Densely scattered hedgerow and dense watercourse trees

Typical woodland size range:	0.5 - 20ha	small-medium
Woodland pattern:	Organic	

- Small-medium scale woodland planting.
- Conserve and restore all ancient woodland sites and restock with locally occurring native species.
- Promote linked extensions to ancient woodland by natural regeneration and planting.
- Ensure the use of indigenous tree and shrub species, including a proportion of large, long-lived species.
- Re-establish and enhance physical links between existing isolated woodland and hedgerows.
- Ensure the management and enhancement of hedgerow trees, through selection and natural regeneration, or by planting.
- Encourage the management of scrub and secondary woodland to link with existing habitats and woodland.
- Enhance the visual and ecological continuity of river corridors by management, natural regeneration and planting of riparian trees.
- Ensure the conservation and management of mature/veteran trees within hedgerows.

Woodland Species Mix

Neutral/Slightly Acidic Soils

Primary Tree Species 50%

Betula pendula	Silver Birch
Quercus petraea	Sessile Oak
Quercus robur	Pedunculate Oak

Secondary Tree Species 20%

Major

Betula pubescens	Downy Birch
Fraxinus excelsior	Ash
Ilex aquifolium	Holly

Minor

Acer campestre	Field Maple
Sorbus aucuparia	Rowan

Shrubs 10-30%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn

Minor

Frangula alnus	Alder Buckthorn
Prunus spinosa	Blackthorn
Rosa canina	Dog Rose
Viburnum opulus	Guelder Rose

Open space 0-20%

More Acidic Soils

Primary Tree Species 50%

Betula pendula	*Silver Birch*
Betula pubescens	Downy Birch
Quercus petraea	Sessile Oak
Quercus robur	Pedunculate Oak

Secondary Tree Species 20%

Major

Ilex aquifolium	Holly
Sorbus aucuparia	Rowan

Shrubs 10-30%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn
Rosa canina	Dog Rose

Open space 0-20%

Waterlogged Conditions on all soil types

Primary Tree Species 50%

† *Alnus glutinosa*	Alder
† *Salix fragilis*	Crack Willow

Secondary Tree Species 20%

Major

Betula pubescens	Downy Birch
Ilex aquifolium	Holly
Quercus petraea	Sessile Oak

Minor

Populus tremula	Aspen
Salix caprea	Goat Willow
Sorbus aucuparia	Rowan

Shrubs 10-30%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn
Salix cinerea	Grey Willow

Minor

Prunus spinosa	Blackthorn
Viburnum opulus	Guelder Rose

Open space 0-20%

† Watercourse Trees - tree species most appropriate for planting as watercourse trees.

Hedgerow Species Mix

Suitable hedgerow plants

Primary 70-75%

Crataegus monogyna	Hawthorn

Secondary 25-30%

Acer campestre	Field Maple
Corylus avellana	Hazel
Ilex aquifolium	Holly
Prunus spinosa	Blackthorn

Occasional 0-5%

Frangula alnus	Alder Buckthorn
Rosa canina	Dog Rose
Viburnum opulus	Guelder Rose

Suitable hedgerow trees

Primary 70-75%

Fraxinus excelsior	Ash
Quercus petraea	Sessile Oak
Quercus robur	Pedunculate Oak

Secondary 25-30%

Acer campestre	Field Maple

Occasional 0-5%*

Sorbus aucuparia	Rowan

* only to be used if occurring locally within the landscape character type

Nottinghamshire, Derbyshire and Yorkshire Coalfield

LANDSCAPE TYPE: COALFIELD VILLAGE FARMLANDS

A broad industrial landscape characterised by villages, dairy farming and small woodlands.

Key Characteristics

- Gently undulating landform
- Dairy farming with pasture and localised arable cropping
- Relict ancient semi-natural woodland, copses and linear tree-belts
- Dense watercourse trees and scattered hedgerow trees
- Towns and villages on ridge lines surrounded by remnant medieval strip fields
- Network of small irregular lanes between larger urban roads
- Small villages with sandstone buildings expanded by red brick terrace housing and ribbon development

Geology and Landform

Situated on the Middle Coal Measure Series, this undulating landscape of low ridges and valleys reflects the alternating bands of sandstone, shale, mudstone and coal.

Soils and Land-Use

The heavy Coal Measure soils traditionally support dairy farming. Pasture has remained the dominant land-use, with arable crops grown locally on freer draining soils.

Ecology

With the exception of the impact from open cast coal extraction, the small scale undulating topography and uncultivable soils have helped preserve some ecological value in this landscape. Around the urban fringes of the villages, where the small strip fields have not been intensively managed, the species-rich hedgerows and mature trees have survived, providing a refuge for wildlife.

Tree Cover

This is essentially a small scale, organic landscape with small woodlands, copses, linear tree-belts and hedgerow trees. Isolated remnants of ancient semi-natural woodland exist. These are most prominent in the south around Dale Abbey. Trees, especially willow and alder, are densely scattered along watercourses. Scattered mature trees are found along field boundaries, principally oak and ash, which may suggest an ancient, species-rich hedgerow.

Notably around villages, such as Pilsley, hedgerows tend to be more species-rich, with elm and holly.

Mature hedgerow trees in areas of early enclosure

The restoration of former colliery sites has resulted in the creation of new woodlands at Williamthorpe and Grassmoor. Large in size, this woodland planting contrasts with the small scale landscape that surrounds it.

Enclosure

Visually prominent medieval strip fields occur around the urban fringes of many villages, notably at North Wingfield, Pilsley and to the east of Shirland.

Medieval strip fields associated with settlement

This enclosure pattern is particularly distinctive and prevalent in this landscape type. Small irregular fields, suggesting an even older origin of field enclosure, are also evident around Dale Abbey in the south. In the wider landscape, the pattern is more complex, reflecting a diverse history of enclosure and the impact of open cast coal extraction. There are a few large areas of former common, which were enclosed during the era of parliamentary enclosure. Many areas, particularly in the north, have been affected by open cast coal extraction. Now mostly restored, they exhibit medium to large fields, enclosed by thorn hedgerows, creating a regular field pattern.

Transport

A simple yet extensive network of minor roads connects the many villages and farmsteads scattered through the landscape. Avoiding the poorly drained valleys, roads often run along the sandstone ridges. These are now delineated by more recent ribbon development and often truncated by modern roads such as the M1, A38 and the A61.

Built Environment

This is a settled landscape characterised by towns, many villages and a moderate dispersal of farmsteads. The historic cores of villages are constructed in local Coal Measure Sandstone. Later extensions of terraces in brickwork, to house colliers and their families, give a clear indication of how the landscape developed over time.

Red brick mining terrace

More recent housing built on the urban fringes of these villages is beginning to dilute their individual identity.

Many of these villages had an associated colliery and supplied a local workforce; all the mines are now closed.

In the south, at Dale Abbey, there is evidence of a former monastic landscape. Only part of the east wall and window of the Abbey, constructed of the local Bunter sandstone, remains.

Summary

A broad, gently undulating landscape, the Coalfield Village Farmlands is characterised by pastoral farming with localised arable cropping.

Small villages retain a distinct character; their historic cores constructed of local sandstone. Red brick former mining terraces and small strip fields give a clear indication of how the settlement and landscape has developed over time.

Small relict woodland occurs on the steeper slopes, with mature trees found scattered along hedgerows and beside watercourses. Ecological interest is largely associated with the strip fields around the villages. Here, mature oak trees, species-rich hedgerows and unimproved grassland provide an important refuge for wildlife.

The diverse history of enclosure and industrialisation has created a patchwork of land-uses. Widespread industrial and housing development has subsumed many of these villages and new development continues to impact upon their distinctive character.

Planting and Management Guidelines

A small scale landscape of small organic woodlands, some of ancient origin, copses and linear tree belts with scattered hedgerow and dense watercourse trees.

Primary woodland character:	Thinly scattered small woodlands
Primary tree character:	Thinly scattered hedgerow trees and dense watercourse trees
Woodland vision:	Densely scattered small woodlands
Tree vision:	Densely scattered hedgerow and dense watercourse trees

Typical woodland size range:	0.5 - 10ha	small
Woodland pattern:	Organic	

- Small scale woodland planting.
- Re-establish and enhance physical links between existing isolated woodland and hedgerows.
- Ensure the management and enhancement of hedgerow trees, through selection and natural regeneration, or by planting.
- Encourage the management of scrub and secondary woodland to link with existing habitats and woodland.
- Enhance the visual and ecological continuity of river corridors by management, natural regeneration and planting of riparian trees.
- Ensure the conservation and management of mature/veteran trees within hedgerows.

LANDSCAPE TYPE: COALFIELD VILLAGE FARMLANDS

Woodland Species Mix

Neutral/Slightly Acidic Soils

Primary Tree Species 50%

Betula pendula	Silver Birch
Quercus petraea	Sessile Oak
Quercus robur	Pedunculate Oak

Secondary Tree Species 20%

Major

Betula pubescens	Downy Birch
Fraxinus excelsior	Ash
Ilex aquifolium	Holly

Minor

Acer campestre	Field Maple
Sorbus aucuparia	Rowan

Shrubs 10-30%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn

Minor

Frangula alnus	Alder Buckthorn
Prunus spinosa	Blackthorn
Rosa canina	Dog Rose
Viburnum opulus	Guelder Rose

Open space 0-20%

More Acidic Soils

Primary Tree Species 50%

Betula pendula	Silver Birch
Betula pubescens	Downy Birch
Quercus petraea	Sessile Oak
Quercus robur	Pedunculate Oak

Secondary Tree Species 20%

Major

Ilex aquifolium	Holly
Sorbus aucuparia	Rowan

Shrubs 10-30%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn
Rosa canina	Dog Rose

Open space 0-20%

Waterlogged Conditions on all soil types

Primary Tree Species 50%

† *Alnus glutinosa*	Alder
† *Salix fragilis*	Crack Willow

Secondary Tree Species 20%

Major

Betula pubescens	Downy Birch
Ilex aquifolium	Holly
Quercus petraea	Sessile Oak

Minor

Populus tremula	Aspen
Salix caprea	Goat Willow
Sorbus aucuparia	Rowan

Shrubs 10-30%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn
Salix cinerea	Grey Willow

Minor

Prunus spinosa	Blackthorn
Viburnum opulus	Guelder Rose

Open space 0-20%

† **Watercourse Trees** - tree species most appropriate for planting as watercourse trees.

Hedgerow Species Mix

Suitable hedgerow plants

Primary 70-75%

Crataegus monogyna	Hawthorn

Secondary 25-30%

Acer campestre	Field Maple
Corylus avellana	Hazel
Ilex aquifolium	Holly
Prunus spinosa	Blackthorn

Occasional 0-5%

Frangula alnus	Alder Buckthorn
Rosa canina	Dog Rose
Viburnum opulus	Guelder Rose

Suitable hedgerow trees

Primary 70-75%

Fraxinus excelsior	Ash
Quercus petraea	Sessile Oak
Quercus robur	Pedunculate Oak

Secondary 25-30%

Acer campestre	Field Maple

Occasional 0-5%*

Sorbus aucuparia	Rowan

* only to be used if occurring locally within the landscape character type

Nottinghamshire, Derbyshire and Yorkshire Coalfield

LANDSCAPE TYPE: COALFIELD ESTATELANDS

A heavily industrialised and urbanised landscape characterised by settlements, parkland, woodland and dairy farming.

Key Characteristics

- Gentle undulating landform
- Dairy farming dominated by pasture
- Plantation woodlands, tree belts and coverts
- Fields of medium size defined by hedgerows
- Extensive areas of existing and relict parkland
- Occasional country houses with associated parkland trees
- Villages and towns with red brick former mining terraces and ribbon development

Geology and Landform

Formed by the Middle Coal Measure Series, this undulating landscape of low ridges and valleys reflects the alternating bands of sandstone, shale, mudstone and coal.

Soils and Land-Use

The coal industry and associated expansion of villages and towns has engulfed many parts of the countryside, creating a heavily industrialised and urbanised landscape. The Coal Measure soils traditionally support dairy farming on pasture with occasional arable cropping confined to the better drained soils. There are also extensive areas of amenity parkland at Shipley and Alfreton, and relict parkland east of Codnor.

Ecology

The Coalfield Estatelands are ecologically poor, owning to the impacts of coal extraction, industrial expansion and urbanisation. However, the reclamation of some derelict land has provided the opportunity for ecological enhancement, particularly wetlands and woodlands. Patches of ancient woodland occur alongside numerous plantation blocks. They often contain a mixture of non-native and broadleaved species. The extent of pasture is an important attribute within this landscape. However, much of this tends to be intensively managed and has little ecological value.

Overall, the prominent tree cover provides the greatest native conservation value and continuity in an otherwise ecologically fragmented landscape.

Tree Cover

Tree cover is a key characteristic of this landscape type. Woodlands form small to medium size plantation blocks, tree belts and small coverts. Formally managed by estates, they often exhibit a regular outline and a mixed species composition with some commercial stock. Patches of ancient semi-natural woodland still persist, most notably around Shipley Park. Mature trees also contribute to this wooded character, chiefly represented within parkland and around settlement.

Woodlands around Codnor Park

Boundary trees, notably ash and some oak, are found scattered along hedgerows, whilst continuous and scattered trees, predominantly willow, line watercourses. Visually prominent throughout the landscape, the tree cover plays an important role in mitigating the impact of modern development.

Enclosure

Fields tend to be of medium size with a semi-regular to regular field pattern. Large fields occur in areas associated with restored open cast sites such as at Shipley and Butterley Park. Isolated remnants of ancient enclosure are seen near Riddings and within the suburbs of Swanwick.

Transport

The pattern that has emerged through rapid industrial expansion is notably complex. Roads such as the A38, M1 and the A6007 dissect earlier transport routes. Their presence has attracted industrial and housing expansion. The underlying historic pattern of winding lanes connecting the many villages and farms in the landscape is now inadequate for the volume of traffic and often subject to road improvements. There are also many railway lines, mostly derelict since the coal industry declined.

Built Environment

The traditional settlement pattern is comprised of many village clusters, and a moderate scattering of farmsteads. Traditional buildings are constructed of the local Coal Measure Sandstone with Welsh slate roofs. Modern housing and industrial estates, often coalescing into larger urbanised areas, for example at Alfreton and Somercotes, have now subsumed these villages. Although their village character has been lost, their historic cores remain recognisable. There are also occasional country houses and estate buildings with associated parkland.

Summary

The Coalfield Estatelands landscape character type is heavily industrialised and urbanised. Reflecting the underlying Coal Measures, the landform is gently undulating with low ridges and valleys. Heavy, seasonally waterlogged soils support dairy farming, with pasture as the dominant land-use.

Extensive areas of parkland, small to medium size plantation blocks, discrete tree belts and small coverts provide some ecological continuity in an otherwise built-up and disparate landscape.

Many traditional villages have been subsumed by modern urbanisation. More recent building development, associated with modern housing and industrial estates, is widespread, overwhelming many areas and creating a new urban edge to the countryside.

Planting and Management Guidelines

A well-wooded, urbanised, estate landscape of small to medium plantations, coverts and tree belts with scattered hedgerow, dense watercourse and localised amenity tree groups, including parkland trees.

Primary woodland character:	Thinly scattered small plantations
Primary tree character:	Thinly scattered hedgerow trees, dense watercourse trees and localised amenity tree groups
Woodland vision:	Densely scattered small woodlands
Tree vision:	Densely scattered hedgerow trees, dense watercourse trees and localised amenity tree groups

Typical woodland size range:	0.5 - 15ha	small-medium
Woodland pattern:	Regular plantations	

- Small-medium scale woodland planting.
- Conserve and restore all ancient woodland sites and restock with locally occurring native species.
- Promote linked extensions to ancient woodland by natural regeneration and planting.
- Re-establish and enhance physical links between existing isolated woodland and hedgerows.
- Ensure the management and enhancement of hedgerow trees, through selection and natural regeneration, or by planting.
- Conserve and enhance the tree groups that occur within and around rural settlements and isolated farmsteads.
- Enhance the visual and ecological continuity of river corridors by management, natural regeneration and planting of riparian trees.
- Conserve and renew ornamental plantations and individual parkland trees.

LANDSCAPE TYPE: COALFIELD ESTATELANDS

Woodland Species Mix

Neutral/Slightly Acidic Soils

Primary Tree Species 50%

Betula pendula	Silver Birch
‡ *Quercus petraea*	Sessile Oak
‡ *Quercus robur*	Pedunculate Oak

Secondary Tree Species 20%

Major

Betula pubescens	Downy Birch
‡ *Fraxinus excelsior*	Ash
Ilex aquifolium	Holly

Minor

Acer campestre	Field Maple
Sorbus aucuparia	Rowan

Shrubs 10-30%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn

Minor

Frangula alnus	Alder Buckthorn
Prunus spinosa	Blackthorn
Rosa canina	Dog Rose
Viburnum opulus	Guelder Rose

Open space 0-20%

More Acidic Soils

Primary Tree Species 50%

Betula pendula	Silver Birch
Betula pubescens	Downy Birch
Quercus petraea	Sessile Oak
Quercus robur	Pedunculate Oak

Secondary Tree Species 20%

Major

Ilex aquifolium	Holly
Sorbus aucuparia	Rowan

Shrubs 10-30%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn
Rosa canina	Dog Rose

Open space 0-20%

Waterlogged Conditions on all soil types

Primary Tree Species 50%

† *Alnus glutinosa*	Alder
† *Salix fragilis*	Crack Willow

Secondary Tree Species 20%

Major

Betula pubescens	Downy Birch
Ilex aquifolium	Holly
Quercus petraea	Sessile Oak

Minor

Populus tremula	Aspen
Salix caprea	Goat Willow
Sorbus aucuparia	Rowan

Shrubs 10-30%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn
Salix cinerea	Grey Willow

Minor

Prunus spinosa	Blackthorn
Viburnum opulus	Guelder Rose

Open space 0-20%

† **Watercourse Trees** - tree species most appropriate for planting as watercourse trees.

‡ **Amenity Trees** - tree species most appropriate for planting as amenity trees associated with settlement, or other locally occurring large woodlands species.

Hedgerow Species Mix

Suitable hedgerow plants

Primary 70-75%

Crataegus monogyna	Hawthorn

Secondary 25-30%

Acer campestre	Field Maple
Corylus avellana	Hazel
Ilex aquifolium	Holly

Occasional 0-5%

Frangula alnus	Alder Buckthorn
Rosa canina	Dog Rose
Viburnum opulus	Guelder Rose

Suitable hedgerow trees

Primary 70-75%

Fraxinus excelsior	Ash
Quercus petraea	Sessile Oak
Quercus robur	Pedunculate Oak

Secondary 25-30%

Acer campestre	Field Maple

Occasional 0-5%*

Sorbus aucuparia	Rowan

* only to be used if occurring locally within the landscape character type

Nottinghamshire, Derbyshire and Yorkshire Coalfield

LANDSCAPE TYPE: PLATEAU ESTATE FARMLANDS

A gently undulating plateau of mixed farming characterised by dispersed settlement, small estate plantations and parkland.

Key Characteristics

- Upstanding, gently undulating plateau
- Mixed farming
- Scattered hedgerow trees, predominantly oak
- Small plantations
- Parkland and ornamental tree belts associated with country houses
- Medium to large fields
- Relict parkland and former commons now enclosed and farmed
- Dispersed estate farmsteads and cottages, built of red brick with clay tiles and Welsh slate roofs
- Sense of elevation with long distance views

Geology and Landform

The Plateau Estate Farmlands is situated at the southern limit of the Derbyshire Coalfield Character Area. Whilst part of this nationally defined area, the landscape is actually defined, not by Coal Measures, but by mudstone and sandstone that were laid down in a desert environment, during the Triassic Period. As a result, this landscape has evolved very differently from the rest of the Coalfield. The rocks were later covered by boulder clay, sand and gravel, deposited at the end of the Ice Age. The easily eroded mudstones and glacial deposits make up the gently rolling landform of the plateau. The more resistant sandstones account for the steeper ground, including the escarpment that abuts the Coal Measures in the north. Higher than the Coalfield to the north and the Trent Valley to the south, the plateau has a distinct sense of elevation with long distance views over the surrounding lower lying land.

Soils and Land-Use

The soils are locally variable depending on the underlying geology. With mudstones predominating, the soils tend to be rich but heavy to work. Over boulder clay, they deteriorate further, becoming heavier and prone to seasonal waterlogging. On steep ground, over sand and gravel deposits or sandstone, the soils are poorer and freer draining. Collectively, these soils have traditionally supported a mixed farming system but, owing to the gentle topography and farming improvements, there has been a gradual shift towards arable cropping.

Ecology

This landscape is ecologically poor owing to the intensive nature of modern day agriculture and the increasing shift towards arable farming. Traditional parkland at Locko Park provides a significant area of woodland and other semi-natural habitats. In addition, the network of hedgerows and mature hedgerow oaks retains a degree of ecological value, most significant in pastoral areas. Ancient semi-natural woodlands remain in a few places but the planting of coniferous trees has obscured and suppressed their ancient origins.

Tree Cover

The pattern of tree cover strongly reflects the traditional nature of estate ownership within this landscape. Small plantations are characteristic. Ancient semi-natural woodland exists in isolated places, such as near Spondon. Many plantations, typical of this estate landscape, exhibit a mixed species composition, often containing coniferous trees. Reinforcing the estate character are areas of parkland, such as Locko and Risley Parks, which provide significant tree cover including ornamental tree belts and parkland trees. Scattered willow trees occur beside watercourses, with sparsely scattered oak trees along hedgerows. Mature oak trees are visually prominent along older field boundaries, creating filtered views through the landscape. Their presence may be indicative of a formerly ancient wooded landscape. Tree cover diminishes around Chaddesden and Ockbrook, reflecting the former presence of commons and also in areas where arable cropping is most intensive. Here views are often uninterrupted, except by the undulating landform.

Enclosure

This is a landscape that displays a diversity of enclosure patterns. Large, regular fields enclose relict parkland at Risley and around Locko Park. On hill summits, medium, regular fields enclose former common land. Other fields tend to be medium in size but with a semi-regular field pattern. Intensive arable cropping may be accountable for the latter, with the removal of hedgerows to increase field productivity. A large area of unenclosed land is also evident within Locko Park.

Transport

There are few lanes that cross this landscape. Many roads are tracks or 'no through roads' leading to isolated farmsteads.

Built Environment

This is inherently a dispersed and sparsely settled landscape, represented by estate farmsteads and cottages built mostly of red brick with Staffordshire blue clay tile or Welsh slate roofs. The occasional country house, such as Locko Park set in parkland with ornamental tree belts, is representative of the key characteristics of estate management in this landscape. Its sparsely settled character is now being eroded by the expansion of many nearby villages like Spondon and Ockbrook. New housing estates and ribbon development often form a hard urban edge to the countryside and are invariably unsympathetic to the inherent character of the landscape.

Summary

The Plateau Estate Farmlands is a gently undulating plateau formed by soft mudstones and glacial deposits. Higher than the Coalfield to the north and the Trent Valley to the south, the plateau has a distinct sense of elevation with long distance views over the surrounding lower lying land.

The soils have traditionally supported a mixed farming system but, owing to the subdued landform and agricultural intensification, arable cropping has dominated. Small plantations and parkland trees reflect the traditional estate ownership of the landscape, with mature oak trees possible indicating a once more extensive ancient wooded landscape. Late enclosure is widespread, enclosing relict parkland and former common land. The nature of modern day agriculture and the increasing shift towards arable farming is slowly altering the mixed farming practices of this landscape and beginning to impact on trees, field boundaries and wildlife habitats.

Although inherently sparsely settled, occasional estate farmsteads and cottages are scattered through the landscape. Located adjacent to the urban fringes of Derby and its satellite villages, the landscape is under intense pressure from housing development and any expansion could seriously jeopardise the current settlement pattern and rural character.

Planting and Management Guidelines

An upstanding plateau of thinly scattered small plantations and coverts with scattered hedgerow and watercourse trees, and localised amenity trees.

Primary woodland character:	Thinly scattered small plantations
Primary tree character:	Thinly scattered hedgerow trees, scattered watercourse trees and localised amenity tree groups
Woodland vision:	Thinly scattered small plantations
Tree vision:	Thinly scattered hedgerow trees, scattered watercourse trees and localised amenity tree groups

Typical woodland size range:	0.5 - 5ha	small
Woodland pattern:	Regular plantations	

- Small scale woodland planting.
- Re-establish and enhance physical links between existing isolated woodland and hedgerows.
- Ensure the management and enhancement of hedgerow trees, through selection and natural regeneration, or by planting.
- Conserve and enhance the tree groups that occur within and around rural settlements and isolated farmsteads.
- Conserve and renew ornamental plantations and individual parkland trees.
- Ensure the conservation and management of mature/veteran trees within hedgerows.

LANDSCAPE TYPE: PLATEAU ESTATE FARMLANDS

Woodland Species Mix

Neutral/Slightly Acidic Soils

Primary Tree Species 50%

Betula pendula	Silver Birch
‡ *Quercus petraea*	Sessile Oak
‡ *Quercus robur*	Pedunculate Oak

Secondary Tree Species 20%

Major

Betula pubescens	Downy Birch
‡ *Fraxinus excelsior*	Ash
Ilex aquifolium	Holly

Minor

Acer campestre	Field Maple
Sorbus aucuparia	Rowan

Shrubs 10-30%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn

Minor

Frangula alnus	Alder Buckthorn
Prunus spinosa	Blackthorn
Rosa canina	Dog Rose
Viburnum opulus	Guelder Rose

Open space 0-20%

More Acidic Soils

Primary Tree Species 50%

Betula pendula	Silver Birch
Betula pubescens	Downy Birch
Quercus petraea	Sessile Oak
Quercus robur	Pedunculate Oak

Secondary Tree Species 20%

Major

Ilex aquifolium	Holly
Sorbus aucuparia	Rowan

Shrubs 10-30%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn
Rosa canina	Dog Rose

Open space 0-20%

Waterlogged Conditions on all soil types

Primary Tree Species 50%

† *Alnus glutinosa*	Alder
† *Salix fragilis*	Crack Willow

Secondary Tree Species 20%

Major

Betula pubescens	Downy Birch
Ilex aquifolium	Holly
Quercus petraea	Sessile Oak

Minor

Populus tremula	Aspen
Salix caprea	Goat Willow
Sorbus aucuparia	Rowan

Shrubs 10-30%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn
Salix cinerea	Grey Willow

Minor

Prunus spinosa	Blackthorn
Viburnum opulus	Guelder Rose

Open space 0-20%

† **Watercourse Trees** - tree species most appropriate for planting as watercourse trees.

‡ **Amenity Trees** - tree species most appropriate for planting as amenity trees associated with settlement, or other locally occurring large woodlands species.

Hedgerow Species Mix

Suitable hedgerow plants

Primary 70-75%

Crataegus monogyna	Hawthorn

Secondary 25-30%

Acer campestre	Field Maple
Corylus avellana	Hazel
Ilex aquifolium	Holly
Prunus spinosa	Blackthorn

Occasional 0-5%

Frangula alnus	Alder Buckthorn
Rosa canina	Dog Rose
Viburnum opulus	Guelder Rose

Suitable hedgerow trees

Primary 70-75%

Quercus petraea	Sessile Oak
Quercus robur	Pedunculate Oak

Secondary 25-30%

Acer campestre	Field Maple
Fraxinus excelsior	Ash

Occasional 0-5%*

Sorbus aucuparia	Rowan

* only to be used if occurring locally within the landscape character type

Nottinghamshire, Derbyshire and Yorkshire Coalfield

LANDSCAPE TYPE: RIVERSIDE MEADOWS

A flat, riverside landscape characterised by dairy farming, wetland, watercourse trees and a legacy of industrial heritage.

Key Characteristics

- Narrow rivers meander along flood plains of variable width
- Remnant riverside vegetation, wetland and unimproved grassland
- Dairy farming dominated by pasture
- Dense tree cover along river channels
- Scattered tree cover along boundaries
- Strong association with transport routes due to the presence of canals, railway lines and roads

Geology and Landform

The principal rivers in the coalfield are the Erewash, Rother and the Doe Lea. The River Erewash flows southwards towards the Trent Valley, through the industrial centres of Heanor and Ilkeston. The River Rother flows north through Chesterfield, picking up the River Doe Lea as it flows out of the county. The riverside meadows sit upon alluvium deposits that were deposited during times of flood. The flood plains are generally flat in profile, with localised hollows reflecting the past course of the river. Hidden underneath these alluvium deposits of silt, mud and gravel are the Coal Measures (Middle Series). In the past, coal was deep mined, but these workings are now abandoned, leaving behind a legacy of pit heaps and industrial dereliction some of which impinges on these flood plains.

Soils and Land-Use

The gravel acts as an aquifer, drawing water from the adjoining land into the river. As a result, soils are heavy to work and seasonally waterlogged, sustaining permanent pasture. Significant industrial development in the river corridors has fragmented the agricultural landscape. Many fields are isolated and neglected resulting in a scrubby appearance to the landscape.

Ecology

The dense riverside trees create a sense of visual and ecological continuity along the length of the river, further emphasised by flood plain grazing marsh, and lowland meadows. Mining activities have created important wetland habitats, including subsidence flashes and reed-beds, of particular value along the River Rother and its tributaries.

Subsidence flashes

The meadows and wetland habitats along the River Erewash are also of county importance for wildlife, as are other water features, created by industrial workings such as disused canals and ponds. In the past, industrial activity and pollution has severely contaminated the rivers, destroying habitats. The situation has improved in recent years but

many rivers still remain in poor condition. Industrial developments continue to have a detrimental effect on this rural landscape. There are also many areas of under managed grassland along these rivers, particularly in urban fringe areas.

Tree Cover

Dense to scattered willow and alder occur along the riverbanks, marking the course of the river.

There are also occasional mature trees, particularly ash and some oak, along field boundaries. Many areas of neglected grassland are being colonised by scrub. Woodland is not a characteristic of this landscape.

Enclosure

Enclosure is not a prominent feature. Thorn hedgerows enclose medium sized, regular shaped fields. A sinuous hedge often defines the limit of the flood plain, suggesting the area was once open meadow.

Transport

Traditionally the river meadows would have had few roads. The older lanes that still exist run along the edge of the flood plain, raised upon embankments to reduce the risk of flooding. The occasional road crosses the river, over bridges constructed from local sandstone or red brick. There has been a considerable impact on this landscape by industry and deep coal mining, and notably through the development of transport routes. Since the industrial revolution, there has been a significant expansion of rail and canal routes, mainly to supply coal pits and to transport goods. The flat landform of the flood plain became an ideal location for canal, rail and road routes.

Meadows fragmented by modern transport links

Most sections of the flood plain carry a railway line. These are still largely in use except for minor tracks, which have been left derelict. Canals are prominent features on the flood plain and mostly follow rivers. They are no longer in use, but sections have been preserved for recreational purposes.

Erewash Canal

Built Environment

Due to the risk of flooding, this landscape historically would have been sparsely settled. In recent times, development has disregarded these earlier practices and encroached onto the river meadows.

Summary

Narrow meandering rivers flow through the Coalfield Riverside Meadows dissecting the Coal Measures to form flood plains of variable width.

Heavy, seasonally waterlogged soils have prohibited arable cropping and traditionally supported low intensity permanent pasture, grazed by cattle. Once open meadow, the flood plain is now defined by late enclosure with thorn hedgerows. Delineated by dense willow and alder, the rivers have provided ecological continuity and support important wetland habitats. Due to the risk of flooding this landscape, would have been unsettled.

With the advent of the industrial revolution, these river valleys were completely transformed. The flat valley floor provided transport corridors accommodating the construction of canals, roads and railways. More recent large scale residential and industrial development has encroached onto the flood plain. Following the decline and abandonment of coal production, the landscape is now punctuated by redundant and derelict remnants of a once predominant industry.

Planting and Management Guidelines

An open flood plain with scattered watercourse trees.

Primary woodland character:	Unwooded
Primary tree character:	Dense watercourse trees
Woodland vision:	Occasional small wet woodlands
Tree vision:	Dense watercourse trees

Typical woodland size range:	0.5 - 5ha	small
Woodland pattern:	Organic/linear	

- Ensure the use of indigenous tree and shrub species, including a proportion of large, long-lived species.
- Ensure a balance is maintained between new woodland planting and areas of nature conservation value.
- Enhance the visual and ecological continuity of river corridors by management, natural regeneration and planting of riparian trees.

Woodland Species Mix

Waterlogged Conditions
on all soil types

Primary Tree Species 50%

† *Alnus glutinosa*	Alder
† *Salix fragilis*	Crack Willow

Secondary Tree Species 20%

Major

Betula pubescens	Downy Birch
Ilex aquifolium	Holly
Quercus petraea	Sessile Oak

Minor

Populus tremula	Aspen
Salix caprea	Goat Willow
Sorbus aucuparia	Rowan

Shrubs 10-30%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn
Salix cinerea	Grey Willow

Minor

Prunus spinosa	Blackthorn
Viburnum opulus	Guelder Rose

Open space 0-20%

† **Watercourse Trees** - tree species most appropriate for planting as watercourse trees.

Hedgerow Species Mix

Suitable hedgerow plants

Primary 85-100%

Crataegus monogyna	Hawthorn

Occasional 0-5%

Corylus avellana	Hazel
Frangula alnus	Alder Buckthorn
Prunus spinosa	Blackthorn
Rosa canina	Dog Rose
Viburnum opulus	Guelder Rose

Suitable hedgerow trees

Primary 70-75%

Fraxinus excelsior	Ash
Quercus petraea	Sessile Oak
Quercus robur	Pedunculate Oak

Secondary 25-30%

Acer campestre	Field Maple

Occasional 0-5%*

Sorbus aucuparia	Rowan

* only to be used if occurring locally within the landscape character type

Part One: Landscape Character Descriptions

5. Southern Magnesian Limestone

Landscape Character Types

- Limestone Farmlands 5.4
- Limestone Gorges 5.9

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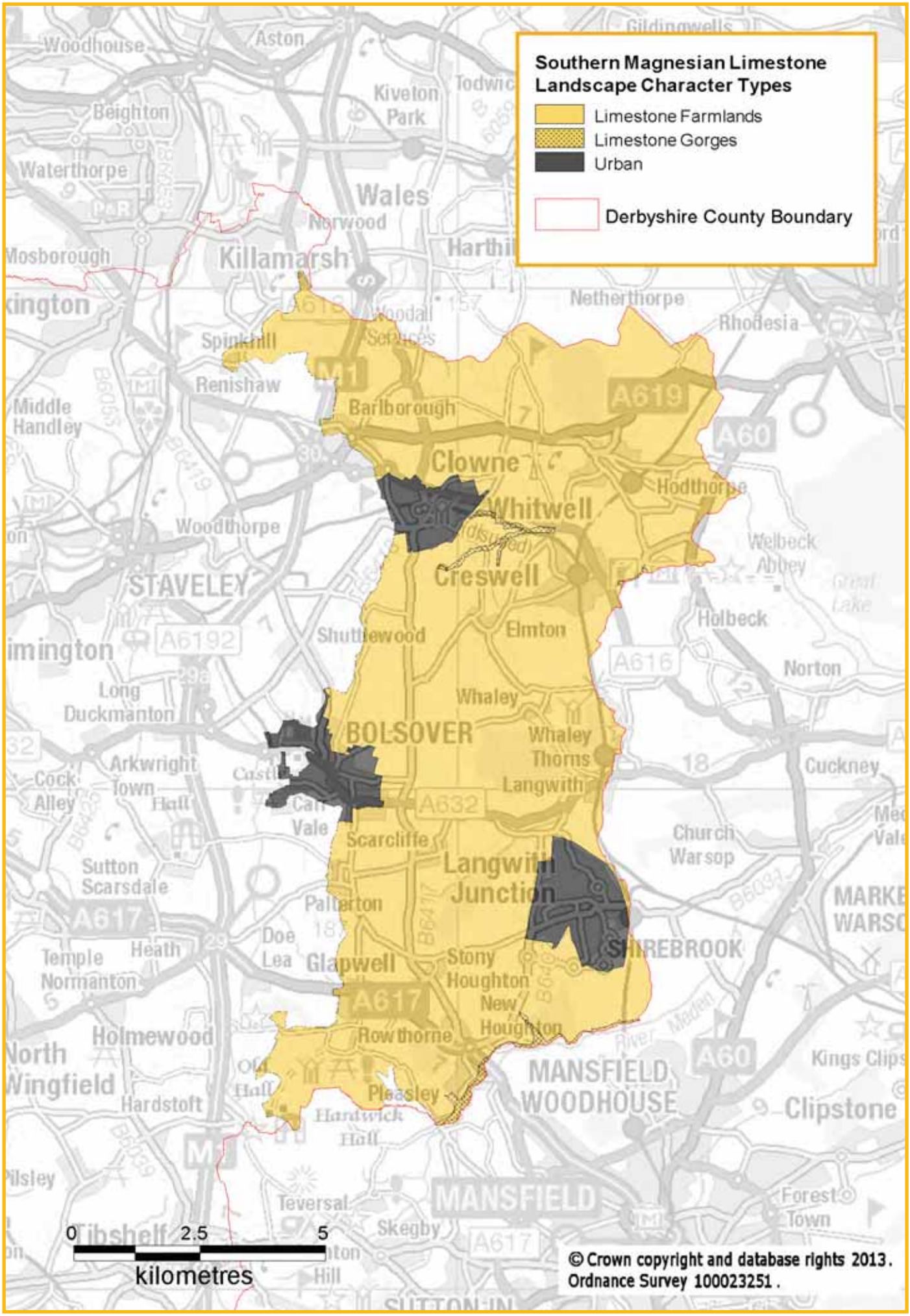
Southern Magnesian Limestone Landscape Character Types
Limestone Farmlands
Limestone Gorges
Urban
Derbyshire County Boundary
Woodhouse
Aston
Kiveton Park
Beighton
Waterthorpe
Wales
Norwood
Mosborough
Killamarsh
Netherthorpe
Rhodesia
Spinkhill
Renishaw
Barlborough
Middle Handley
Clowne
Whitwell
Hodthorpe
Woodthorpe
Welbeck Abbey
STAVELEY
Creswell
Holbeck
Shuttlewood
Elmton
Norton
Long Duckmanton
Whaley
BOLSOVER
Whaley Thorns
Langwith
Cuckney
Arkwright Town
Cock Alley
Vale
Scarcliffe
Church Warsop
Sutton Scarsdale
Langwith Junction
Palterton
Doe Lea
Glapwell
Stony Houghton
SHIREBROOK
Temple Normanton
Heath
New Houghton
Holmewood
Rowthorne
North Wingfield
Hardstoft
Pleasley
MANSFIELD WOODHOUSE
Kings Clipstone
Clipstone
Teversal
MANSFIELD
Forest Town
Skegby
0 2.5 5
kilometres
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Southern Magnesian Limestone

CHARACTER AREA 30

A gently rolling agricultural plateau punctuated by large woodlands, nucleated villages and incised river valleys.

Landscape Character Types

- Limestone Farmlands
- Limestone Gorges

Introduction

The Southern Magnesian Limestone Character Area occurs in the north-east of the county as a narrow belt of elevated land, approximately 10km wide by 20km in length, which runs between Barlborough in the north to Hardwick and Pleasley in the south. This is part of the great band of magnesian limestone that outcrops just north of Nottingham and extends to Bedale in North Yorkshire. The topography of the land strongly contrasts with the industrial coalfields in the west, and the low-lying regions in Nottinghamshire to the east.

Physical Influences

The magnesian limestone is associated with other rocks of the Permian era, including marls, which were deposited in a desert sea approximately 250 million years ago. Magnesian limestone is a soft rock, made from the skeletal remains of sea creatures. Marl is limey clay that formed as dust accumulated in shallow water.

The magnesian limestone has formed an escarpment, which dips gently eastwards before disappearing under the overlying sandstone in Nottinghamshire. The escarpment forms a distinctive, upstanding, gently rolling plateau dissected by the *Limestone Gorges*, which were cut by torrents of melt-water at the end of the last Ice Age.

The rock weathers to form a light, very fertile, friable soil which has resulted in arable farming becoming the dominant land-use of the *Limestone Farmlands*. In some lower lying areas to the east, the occurrence of mixed farming is indicative of heavier soils over clay. In the *Limestone Gorges* where waterlogged soils prevent arable cropping, grazing meadows are characteristic.

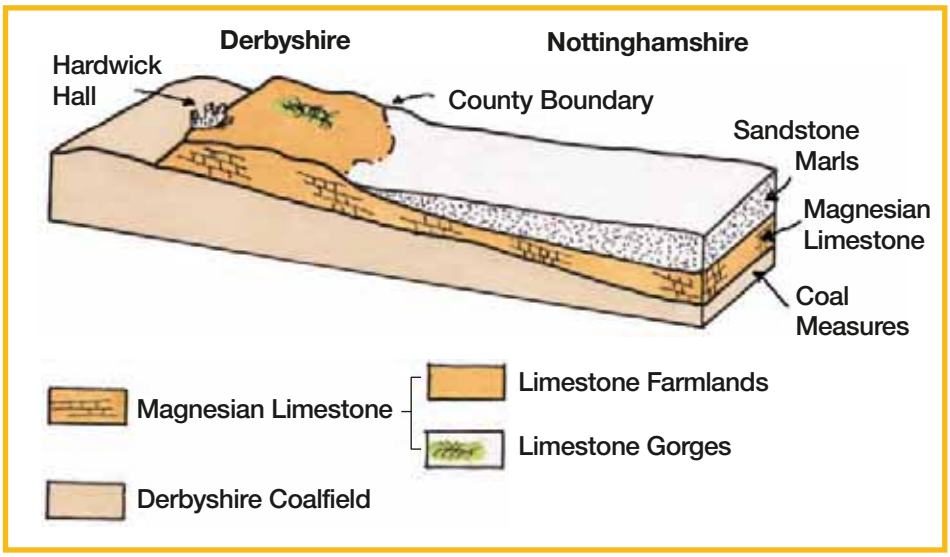
Natural Influences

The plateau was once covered by dense deciduous forest, which was progressively cleared for cultivation. Since the early 19th century, the plateau has become dominated by intensive cereal cropping and, as a result, much of the ecological interest of the *Limestone Farmlands* has been lost. The size and ancient origin of the remaining woodlands are important attributes for nature conservation; however, many have been replanted with coniferous trees.

The narrow, steep sided *Limestone Gorges* remain as important natural features in this landscape. Their inaccessibility, along with the steep rocky sides, have minimised human disturbance and allowed many original habitats to survive. In these valleys, impeded drainage has restricted farming activities to the minimum, rendering much of the land as unimproved wet grassland. Magnesian limestone can support a very species-rich flora, including some species that occur nowhere else in the county.

Human Influences

The caves in Creswell Crags within the *Limestone Gorges* provide evidence of the earliest human occupation in Britain, dating from 50,000 to 12,000 years ago. The post glacial period saw the development of a forested landscape exploited by hunter gatherer groups, but their impact on the landscape would have been minimal. It was not until the adoption of farming in the Neolithic period that significant clearance of the forest would have occurred. Settlement and exploitation of the area continued throughout the prehistoric period and the succeeding Romano-British period; however, there is very little evidence of their activity in the landscape today.



Creswell Crags

The present character of the landscape starts to take shape in the centuries before the Norman Conquest. This is an ill-documented period in history and the establishment of villages and their associated fields are difficult to date. Place names, however, provide clear evidence that some settlements such as those ending in -ton (meaning a farm) and -ley (meaning a clearing or wood) originated in the Anglo-Saxon period. Villages like Palterton, Elmton and Pleasley are good examples of these. Most, if not all, of the settlements mentioned in Doomsday Book are likely to have been old by the time they were recorded.

In the Midlands at the time of the Middle Ages, the majority of settlements would have been surrounded by their open fields, beyond which would have been extensive areas of wastes, commons and woodland. The enclosure of the open fields may have begun during the late Middle Ages; certainly early 17th century maps show enclosures in various areas, for example around Bolsover. Enclosure of the open fields continued in a piecemeal fashion throughout the 17th and 18th centuries, leading to a pattern of relatively small, irregular fields around the village core, with the wastes and commons being divided into larger, more regular fields. This pattern was completed by Parliamentary Enclosure Acts between the mid 18th and mid 19th centuries, which often gave rise to larger, regular fields and straight roads, which are predominant in the *Limestone Farmlands*.

The magnesian limestone is a good building material. Traditional buildings are almost exclusively constructed of this stone and roofed with clay pantiles which have a brilliantly red/orange colour, giving these buildings a certain distinctiveness when seen in the landscape.

Wealthy landowners have had a notable influence on the area by developing estates centred on great houses set in parkland. The best surviving example is Hardwick Hall. The park at Hardwick has escaped the intensive arable farming common over much of the *Limestone Farmlands* and preserves historic landscape features absent elsewhere.

Hardwick Hall and park set within the Limestone Farmlands

A further layer was added to the landscape with the development of industry, particularly from the late 18th century onwards. The rivers, particularly the Maun, Meden and Poulter, were utilised for first corn and then cotton mills in the late 18th century. Charcoal burning and lime burning had probably been carried out on a local scale for decades but limestone quarrying on a large scale began in the 20th century and saw the development of major quarries, particularly at Whitwell. The late 19th century saw the expansion of the coal mining industry eastwards to exploit the deeper seams of coal running beneath the magnesian limestone. The development of collieries, spoil tips and infrastructure inclusive of red brick terraced housing, radically altered the character of many existing villages. The disappearance of the coal industry at the end of the 20th century is now leading to the removal of the buildings and spoil heaps associated with mining and their replacement with new forms of industry. These, in turn, are having a major impact on the appearance of the landscape. However, despite the impact of deep-coal mining and more recent urbanisation, the area still retains a rural character.

Due to the suitability of the soils for cultivation, the pastoral landscape, which predominated up to the late 19th century, gradually gave way to arable production. This change was accentuated during the Second World War when large areas of land were ploughed up. Thereafter, Government and European Economic Community farming policies have sustained the intensive arable landscape. As a result, floristic richness is confined to very small, uncultivated margins associated with rocky outcrops, the grips and crags, and derelict or reclaimed land.

Other Considerations

- Lowland Derbyshire BAP
- Creswell Crags Limestone Heritage Area Management Plan
- Creswell Limestone Strategy
- The Creswell Crags Conservation Plan

Southern Magnesian Limestone

LANDSCAPE TYPE: LIMESTONE FARMLANDS

A gently rolling, agricultural landscape, characterised by large scale open farmland, estate woodlands and limestone villages.

Key Characteristics

- Gently rolling limestone plateau
- Fertile soils supporting productive arable farmland
- Large and medium estate woodlands
- Amenity trees around small rural villages and isolated farmsteads
- Large regular fields bounded by hedgerows
- Straight roads with uniform width verges
- Nucleated settlement pattern
- Historic buildings constructed of limestone with red clay pantile roofs
- Panoramic views across lowland to the west
- Long distance views over plateau often ending in a wooded skyline

Geology and Landform

The magnesian limestone has formed massive blocks that create a compact crystalline rock, resistant to erosion. The durable nature of the limestone is accountable for the steep sided escarpment at Bolsover and justifies its extensive use as building stone. Towards the county boundary, the magnesian limestone is broken up into thin crumbly layers mixed with clay. Here the rock is more easily weathered and, as a result, the landform is lower-lying at Shirebrook and east of Whitwell.

Soils and Land-Use

Arable farming has become the dominant land-use due to the fertile, free-draining qualities of the limestone soil allied with the gentle topography. The soils developed on the marl have a heavier texture, and are more prone to waterlogging. Mixed farming was probably more widespread in earlier times but, due to agricultural intensification, many of these areas have been converted to arable farming.

Ecology

Due to the gentle slopes and inherently fertile soils, the Limestone Farmlands are dominated by intensive cereal cropping. As a result, a considerable degree of ecological interest has been lost. In spite of this, large woodlands are still present and pockets of unimproved magnesian limestone grassland still survive. The major landscape features are the large woodlands, including Whitwell Wood, Scarcliffe Park and Pleasley Park. The planting of coniferous trees has obscured and suppressed their ancient origins and species-rich flora. Even though many of the original species remain, they only occur as scattered individual specimens along ridges or on rocky outcrops. Within Whitwell Wood, there are also locally rare habitats which support many rare species. Further ecological losses have occurred with the loss of elm trees due to Dutch Elm Disease. The rich grassland habitats of the magnesian limestone support many locally rare species. However, these sites occur only in isolated places, particularly on marginal land such as along road verges, on railway cuttings or in old quarries.

Tree Cover

Tree cover is chiefly represented by large woodlands such as Scarcliffe Park Wood (163.6ha), Whitwell Wood (168.8ha) and Pleasley Park (75.9ha). Even though these are of ancient origin, they have now been largely converted to commercial conifer woodland. There are also more recent, smaller plantations, comprising a mix of deciduous and coniferous trees. There is a distinct lack of hedgerow trees, which may be attributed to Dutch Elm Disease. Tree groups do occur around small rural villages and occasional farmsteads. Elm was once prevalent as evidenced in place names like Elmton. The distinct lack of hedgerow trees allied to the gentle relief creates an open landscape allowing for middle to long distance views often ending in a wooded skyline. At Shirebrook and other lower-lying places closer to the county boundary, there is a greater sense of enclosure. This is mainly due to distant views being limited by higher ground to the west.

Enclosure

This is a landscape of medium to large, regular shaped fields bounded by neatly trimmed thorn hedgerows. This is due to the removal of field boundaries and their shape reflects late parliamentary enclosure. The small, narrow and more irregular enclosed land is linked with historic settlements. Here the fields are often associated with pockets of permanent pasture and are a feature around rural villages, such as Whitwell, Elmton and Rowthorne. Hedges in these areas tend to be bushier and more species-rich than those found elsewhere. Dry-stone walls also feature in places, more notably around the villages and along lanes.

Occasional dry-stone walls

Transport

Many of the roads are straight with uniform verges, resulting from late parliamentary enclosure. This pattern is clearly visible at Whaley Common and Bolsover Moor, their names describing former use. In contrast to these routes, a simple network of winding lanes also connects villages. These lanes are related to the earlier enclosed land and are sometimes sunken with species-rich hedgerows. The road verges are more irregular in width with occasional exposed rocky outcrops.

Built Environment

The traditional pattern of settlement is strongly nucleated and characterised by small villages such as Scarcliffe, Elmton and Whaley. The older buildings are constructed from the local buff coloured limestone with red clay pantile roofs. These materials still play a defining role, particularly in the heart of the historic towns, villages and in outlying farmsteads. Between the villages there are sparsely scattered farmsteads and country houses.

Traditional farmstead

An inheritance of building and landscape features still remain from the ducal estates developed in the 16th century, the most notable examples being around Hardwick Hall and Bolsover Castle. Smaller examples occur as isolated features within the landscape, these include game coverts, plantation woodland and estate farms.

Superimposed upon this rural landscape are the impacts of modern development, deep-coal mining and the urbanisation of many small villages. All the pits have now closed but the urbanised settlement pattern, derelict and reclaimed pit heaps and associated infrastructure remain as an enduring legacy of this industry. However, with the unifying influence of the magnesian limestone as a locally distinctive building material, together with strong agricultural traditions, the landscape has retained its rural character.

Summary

The Limestone Farmlands is a simple yet distinctive agricultural landscape strongly influenced by the nature of the underlying geology. The land is shaped in the form of an elevated and, for the most part, gently rolling plateau. Long distance views are characteristic, due to the gentle relief, lack of hedgerow trees and large arable fields. In places, near the county boundary in the east, views are limited due to rising ground, creating a stronger sense of enclosure.

The soils over the magnesian limestone are free-draining and fertile, inherently capable of supporting arable farming. Early farming practices and settlement have characterised the landscape today.

The pattern of fields, small rural villages and large woodlands are the result of a long tradition of human activity. Recent development, coupled with a growth in intensive agriculture, has produced a landscape with few remaining natural habitats. Nevertheless, the large woodlands and their associated flora and fauna still remain important areas for nature conservation.

Although some settlements have expanded in size, the unifying influence of the magnesian limestone as a building material, together with strong agricultural traditions, ensures that beyond the settlement boundaries the landscape retains an essentially rural character.

Planting and Management Guidelines

An open, arable landscape punctuated by the occasional very large plantation woodland, often on ancient woodland sites, with small tree groups around farmsteads and settlement.

Primary woodland character:	Occasional very large plantations
Primary tree character:	Localised amenity tree groups
Woodland vision:	Occasional very large plantations
Tree vision:	Localised amenity tree groups

Typical woodland size range:	Greater than 50ha	large
Woodland pattern:	Regular plantations	

- Large scale woodland planting.
- Conserve and restore all ancient woodland sites by natural regeneration or use of locally occurring native species.
- Re-establish and enhance physical links between existing isolated woodland and hedgerows.
- Conserve and enhance the tree groups that occur within and around rural settlements and isolated farmsteads.

Woodland Species Mix

Base-Rich Soils

Primary Tree Species 50%

Major

‡ *Fraxinus excelsior*	Ash
‡ *Quercus robur*	Pedunculate Oak

Minor

‡ *Tilia cordata*	Small Leaved Lime
‡ *Tilia platyphyllos*	Large Leaved Lime
Ulmus glabra	Wych Elm

Secondary Tree Species 20%

Major

Acer campestre	Field Maple
Betula pendula	Silver Birch
Betula pubescens	Downy Birch

Minor

Ilex aquifolium	Holly
Malus sylvestris	Crab Apple
Populus tremula	Aspen
Prunus padus	Bird Cherry
Sorbus aucuparia	Rowan
Taxus baccata	Yew

Shrubs 10-30%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn
Prunus spinosa	Blackthorn
Salix cinerea	Grey Willow

Minor

Cornus sanguinea	Dogwood
Euonymus europaeus	Spindle
Ligustrum vulgare	Wild Privet
Rhamnus cathartica	Purging Buckthorn
Salix caprea	Goat Willow
Viburnum opulus	Guelder Rose

Open space 0-20%

‡ **Amenity Trees** - tree species most appropriate for planting as amenity trees associated with settlement, or other locally occurring large woodland species.

Hedgerow Species Mix

Suitable hedgerow plants

Primary 70-75%

Crataegus monogyna	Hawthorn

Secondary 25-30%

Acer campestre	Field Maple
Corylus avellana	Hazel
Ilex aquifolium	Holly
Prunus spinosa	Blackthorn
Ulmus glabra	Wych Elm

Occasional 0-5%

Cornus sanguinea	Dogwood
Euonymus europaeus	Spindle
Ligustrum vulgare	Wild Privet
Rhamnus cathartica	Purging Buckthorn
Taxus baccata	Yew
Salix caprea	Goat Willow
Viburnum opulus	Guelder Rose

Suitable hedgerow trees

Primary 95-100%

Fraxinus excelsior	Ash
Quercus robur	Pedunculate Oak

Secondary 25-30%

Acer campestre	Field Maple
Tilia cordata	Small Leaved Lime
Tilia platyphyllos	Large Leaved Lime

Occasional 0-5%

Malus sylvestris	Crab Apple
Populus tremula	Aspen
Prunus padus	Bird Cherry
Sorbus aucuparia	Rowan
Ulmus glabra	Wych Elm

* only to be used if occurring locally within the landscape character type

Southern Magnesian Limestone

LANDSCAPE TYPE: LIMESTONE GORGES

Incised river corridors, characterised by steep rocky cliffs, overhanging woodland and grazed meadows.

Key Characteristics

- Narrow gorges with steep, rocky cliffs and flat bases
- Wet meadows with permanent pasture
- Thin belts of woodland along rock faces, with scattered trees associated with watercourses
- Medium sized regular fields bounded by hedgerows and some dry-stone walls
- Restricted transport routes due to inaccessibility
- Settlement is absent or sparse
- Textile mills and relict industrial buildings made from the local limestone
- Strong sense of visual containment

Geology and Landform

The gorges, locally known as grips, were formed during the last Ice Age when torrents of melt-water cut through the magnesian limestone. Due to the nature of the rock, the river valley was quickly eroded to form a distinct 'U' shape. The exposed buff coloured rock is clearly visible on the cliffs which, associated with the narrow river valley, creates a strong sense of visual containment.

Soils and Land-Use

The valley floor is underlain by material carried down by the torrents of melt-water and debris fallen from the gorge sides. This mixture of rock and soil has impeded drainage, forming the waterlogged soils characteristic of the gorges. Unimproved pasture is the dominant land-use in this landscape.

Ecology

In a region dominated by intensive cereal cropping, the limestone gorges provide a striking contrast in scenery. The major landscape features are the gorges themselves. Their inaccessibility has minimised human disturbance and allowed the woodland, species-rich grassland and natural river valleys to continue as valuable ecological habitats.

The woods of the gorges are remnants of ancient woodland and consist of a rich mixture of broadleaved trees, some of which are protected for their rarity. Unimproved magnesian limestone grassland is nationally scarce. In the Limestone Gorges, this type of grassland occurs extensively on the steep slopes, supporting many rare species.

Water, though present within the Limestone Gorges, is not a major ecological feature. The waterlogged soils, on the other hand, play a key role in forming some important grassland habitats. Hollinhill and Markland Grips and Pleasley Vale have both been designated as Sites of Special Scientific Interest (SSSI) for these reasons. The caves in the gorges also have significant ecological importance supporting rare and unusual fauna.

Wetland habitat at Pleasley Vale

Tree Cover

Linear remnants of broadleaved ancient woodland dominate the steep gorge sides. Scrub is apparent throughout the landscape, colonising poorly maintained fields and steeper slopes.

Enclosure

Enclosure pattern is not an important characteristic within this landscape type. Fields are generally of medium size, regular to semi-regular in shape and enclosed by hedgerows with the occasional dry-stone wall. At one time the river valleys would have been unenclosed grazing meadow.

Transport

The inaccessibility of the Limestone Gorges is a characteristic feature. Most of the gorges have no vehicular access. The road at Pleasley Vale is a more recent addition associated with its industrial development.

Built Environment

Prehistoric man occupied caves at Creswell Crags. Archaeological evidence indicates it be the most northerly site used during the last Ice Age, making it internationally important. Modern man harnessed the area's watercourses for industry and, at Pleasley Vale, has constructed large textile mills using the local limestone. These survive today as industrial relics, largely disused and are imposing features within this narrow gorge. Many are now undergoing redevelopment for alternative uses.

Pleasley Vale Mills

Summary

The Limestone Gorges were formed as torrents of water during the Ice Age eroded the limestone to form deeply incised, 'U' shaped river corridors. The gorges are characterised by steep, rocky cliffs and narrow inaccessible river valleys.

Many of the original habitats, such as the ancient woodland and species-rich grassland, have remained in excellent condition and support species of national importance. The accumulation of debris in the flood plain has given rise to waterlogged soil. As a result, pastoral farming is characteristic with wet grassland being a key feature in the river valleys.

The steep cliffs coupled with narrow river valleys impart a strong sense of enclosure and visual containment creating a peaceful, secluded riverside environment. Of international significance are the caves at Creswell Crags as the most northerly site used by prehistoric man during the last Ice Age. Large mills, relics of the textile industry, are still imposing features within some gorges.

Planting and Management Guidelines

Limestone gorges with dense overhanging semi-natural woodland, some of ancient origin, with scattered watercourse trees.

Primary woodland character:	Widespread small woodlands
Primary tree character:	Scattered watercourse trees
Woodland vision:	Widespread small woodlands
Tree vision:	Scattered watercourse trees

Typical woodland size range:	0.5 - 5ha	small
Woodland pattern:	Organic/ linear	

- Conserve and restore all ancient woodland sites by natural regeneration or use of locally occurring native species.
- Ensure the use of indigenous tree and shrub species, including a proportion of large, long-lived species.
- Ensure a balance is maintained between new woodland creation and areas of nature conservation value.
- Enhance the visual and ecological continuity of river corridors by management, natural regeneration and planting of riparian trees.
- Ensure new woodland does not conflict with features (e.g. ridge and furrow) that help to define landscape character.

Woodland Species Mix

Neutral/ Base-Rich Soils

Primary Tree Species 50%

Major

Fraxinus excelsior	Ash
Quercus robur	Pedunculate Oak

Minor

Tilia cordata	Small Leaved Lime
Tilia platyphyllos	Large Leaved Lime
Ulmus glabra	Wych Elm

Secondary Tree Species 20%

Major

Acer campestre	Field Maple
Betula pendula	Silver Birch
Betula pubescens	Downy Birch

Minor

Ilex aquifolium	Holly
Malus sylvestris	Crab Apple
Populus tremula	Aspen
Prunus padus	Bird Cherry
Sorbus aucuparia	Rowan
Taxus baccata	Yew

Shrubs 10-30%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn
Prunus spinosa	Blackthorn
Salix cinerea	Grey Willow

Minor

Cornus sanguinea	Dogwood
Euonymus europaeus	Spindle
Ligustrum vulgare	Wild Privet
Rhamnus cathartica	Purging Buckthorn
Salix caprea	Goat Willow
Viburnum opulus	Guelder Rose

Open space 0-20%

Waterlogged Conditions on all soil types

Primary Tree Species 50%

Alnus glutinosa	Alder
Betula pubescens	Downy Birch
Fraxinus excelsior	Ash
† *Salix fragilis*	Crack Willow

Secondary Tree Species 20%

Major

Salix caprea	Goat Willow
Salix cinerea	Grey Willow

Minor

Corylus avellana	Hazel
Sorbus aucuparia	Rowan

Shrubs 10-30%

Major

Salix purpurea	Purple Willow
Salix viminalis	Osier

Minor

Crataegus monogyna	Hawthorn
Prunus spinosa	Blackthorn
Viburnum opulus	Guelder Rose

Open space 0-20%

† **Watercourse Trees** - tree species most appropriate for planting as watercourse trees.

Hedgerow Species Mix

Suitable hedgerow plants

Primary 70-75%

Crataegus monogyna	Hawthorn

Secondary 25-30%

Acer campestre	Field Maple
Corylus avellana	Hazel
Ilex aquifolium	Holly
Prunus spinosa	Blackthorn
Ulmus glabra	Wych Elm

Occasional 0-5%

Cornus sanguinea	Dogwood
Euonymus europaeus	Spindle
Ligustrum vulgare	Wild Privet
Rhamnus cathartica	Purging Buckthorn
Taxus baccata	Yew
Viburnum opulus	Guelder Rose

Suitable hedgerow trees

Primary 95-100%

Fraxinus excelsior	Ash
Quercus robur	Pedunculate Oak

Secondary 25-30%

Acer campestre	Field Maple
Tilia cordata	Small Leaved Lime
Tilia platyphyllos	Large Leaved Lime

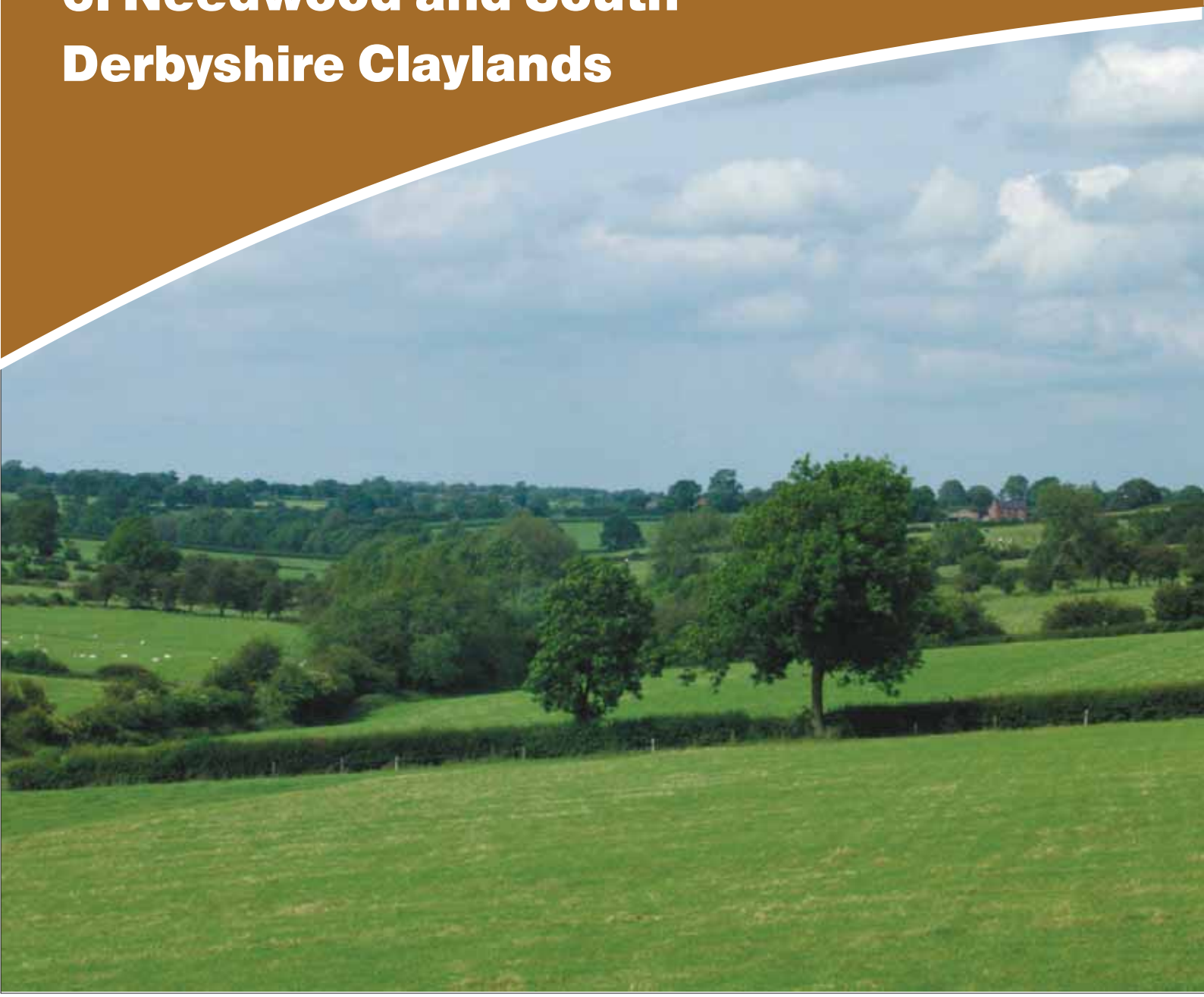
Occasional 0-5%*

Malus sylvestris	Crab Apple
Prunus padus	Bird Cherry
Sorbus aucuparia	Rowan
Ulmus glabra	Wych Elm

* only to be used if occurring locally within the landscape character type

Part One: Landscape Character Descriptions

6. Needwood and South Derbyshire Claylands



Landscape Character Types

- Settled Plateau Farmlands 6.4
- Settled Farmlands 6.8
- Sandstone Slopes and Heaths .. 6.13
- Estate Farmlands 6.17
- Riverside Meadows 6.22

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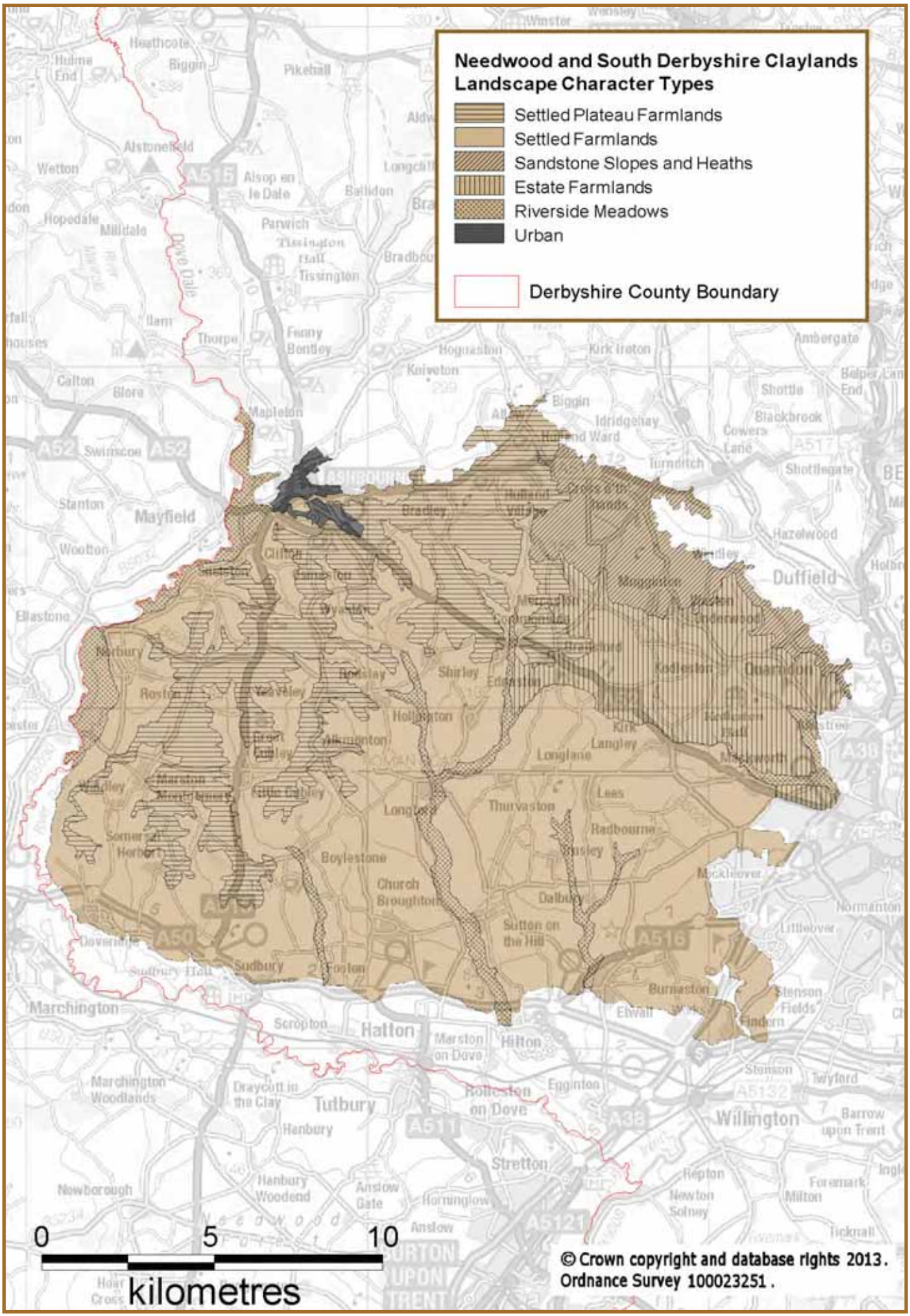
Needwood and South Derbyshire Claylands
Landscape Character Types
Settled Plateau Farmlands
Settled Farmlands
Sandstone Slopes and Heaths
Estate Farmlands
Riverside Meadows
Urban
Derbyshire County Boundary
0
5
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kilometres
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Needwood and South Derbyshire Claylands

CHARACTER AREA 68

A settled, pastoral landscape on gently rolling lowlands.

Landscape Character Types

- Settled Plateau Farmlands
- Settled Farmlands
- Sandstone Slopes and Heaths
- Estate Farmlands
- Riverside Meadows

"... and where at every turn he came upon some fine old country-seat nestled in the valley or crowning the slopes, some homestead with its long length of barn and its cluster of golden ricks, some grey steeple looking out from a pretty confusion of trees.... And directly below them the eye rested on a more advanced line of hanging woods, divided by bright patches of pasture or furrowed crops..."

(p16 George Eliot 'Adam Bede')

Introduction

Located in the south-west of the county, the Needwood and South Derbyshire Claylands comprise two distinct areas separated by the River Dove, which also forms the administrative boundary between Derbyshire and Staffordshire. The distinctive wooded landscape of Needwood lies exclusively within Staffordshire.

The remainder of this Character Area within Derbyshire is rolling lowland over glacial till and Mercia Mudstones that were amenable to early settlement and farming. In contrast to the Needwood area, there is less woodland and more settlement with small villages and scattered farmsteads and cottages. Ridge and furrow and the earthworks of deserted villages suggest the area was once more densely settled.

Land-use is typically dairy farming with some arable, set within a framework of hedgerows and mature hedgerow trees. Woodlands are few but locally occurring parkland, such as that at Kedleston Hall, makes a significant contribution to the overall character of the area.

Small red brick villages and estate farms are distinctive features and, although some settlements west of Derby have expanded through post-war development, the landscape retains a deeply rural character.

Physical Influences

Within Derbyshire, this character area is defined by an underlying geology of Mercia Mudstones, with Sherwood Sandstone to the north, overlain in the north and west by a thin covering of glacial drift. Differential erosion by numerous narrow streams, draining from the Peak Fringe, has created a gently undulating to rolling landform with the glacial drift defining the more upstanding *Settled Plateau Farmlands*.

The wide valley and *Riverside Meadows* of the River Dove define the western and southern limits of this area within the county.

Natural Influences

The predominant land-use is pasture, mainly for dairy farming, with some arable cropping where topography allows, particularly in *Settled Plateau Pastures*. Within Derbyshire, unlike the Needwood area, woodland is not a prominent characteristic, although there is a strong sense of enclosure pertaining to the patchwork of fields enclosed by hedgerows with mature hedgerow trees. Although much of the pasture has now been improved, there are still remnants of unimproved pasture and meadows. Some older hedgerows are species-rich.

Where the underlying geology is defined by sandstone in *Sandstone Slopes and Heaths*, locally occurring heathland with gorse and heather is still to be found, though mostly confined to the steepest slopes or road verges.

Historic parks, like Kedleston, make a locally significant contribution to the ecological value of *Estate Farmlands* through the presence of veteran parkland trees and the presence of plantation woodland.

Human Influences

Evidence of early activity is generally rare. However, Iron Age and Roman settlement suggest the area was more extensively settled in the pre-medieval period than previously believed.

The agricultural quality of the land would always have attracted settlers and the present pattern of settlement was established in the Anglo-Saxon period, as indicated by the place name evidence and the number of villages already present by the time of the Domesday Book.

Following the Norman Conquest, extensive tracts of land were set aside for royal hunting forests. Duffield Frith is a good example extending over a large area and encompassing a number of deer parks including those at Mansell and Ravensdale Park near Muggington. Park pale (bank and ditch enclosure boundary), earthen bank gateways, deer courses and other historic landscape features survive to give these former park landscapes a distinctive character. They also incorporate remaining fragments of heathland, particularly within *Sandstone Slopes and Heaths* at the northern extremity of the area.

In the *Settled Farmlands*, the density of settlement in the Middle Ages was greater than it is today, as indicated by the surviving earthworks of deserted and shrunken villages, such as Hungry Bentley and Muggington, and the surviving ridge and furrow of the former open fields. Settlement also spread onto commons and heaths in the late post-medieval period, most notably at Hulland Ward with its typical wayside cottages and straight roads.

Enclosure of the landscape began early and areas were already enclosed by the early 17th century. The winding and often sunken country lanes bounded by plump mixed species hedgerows are, in part, a product of the long history of enclosure and add to the rural character and sense of antiquity on this landscape. In contrast, within the former commons and heathland associated with *Settled Plateau Farmlands* and *Sandstone Slopes and Heaths*, roads are often straight and direct with uniform width verges.

Later, country house parks were developed at Osmaston, Sudbury and most notably at Kedleston. Kedleston Hall, set within the *Estate Farmlands* landscape, remains today as one of the finest examples of a Georgian set-piece, the hall and park both being designed by Robert Adam.

The predominant building material within the villages is red brick and, with the exception of villages like Brailsford, they have remained relatively small and loose-knit in character. More important buildings, like churches and the manor house, may be constructed in the local sandstone. Some very occasional examples survive of half-timbered Elizabethan buildings, most notably Somersal Herbert Hall.

Somersal Herbert Hall

Winding country lanes bounded by hedgerows provide a sense of enclosure, particularly where the lanes have become sunken within the minor valley sides.

Other Considerations

- The Lowland Derbyshire BAP

Winding country lane

Needwood and South Derbyshire Claylands

LANDSCAPE TYPE: SETTLED PLATEAU FARMLANDS

A medium scale pastoral landscape on gently rolling upland plateaux. A sense of elevation with extensive views filtered by scattered hedgerow trees and small woodlands.

Key Characteristics

- A gently rolling upland plateau extending onto ridge tops
- Slowly permeable, seasonally waterlogged soils over glacial till
- Pastoral farming with some cropping
- Marl pits forming small ponds
- Densely scattered boundary trees and occasional small woodland blocks
- Small to medium fields surrounded by hedgerows
- Parkland estates
- Areas of former common land with clusters of red brick and Staffordshire blue clay tile roofed cottages
- Scattered red brick and Staffordshire blue clay tile roofed farmsteads and estate farms
- Extensive views over lower ground

Geology and Landform

This plateau landscape is strongly influenced by the underlying geology with reddish till (glacial drift) overlaying Palaeozoic and Mesozoic Sandstone and Shales for the most part. This occurs as a series of "fingers" or narrow ridges extending southwards from the higher plateau between the gentle valleys of the Spinneyford Brook, Wyaston Brook and Cubley Brook.

Soils and Land-Use

The soils found consistently throughout this landscape are slowly permeable, seasonally waterlogged, fine loam over clayey soils. The gentle relief associated with this landscape type ensures that there is little run-off, so the slowly permeable soils are waterlogged for long periods in the winter and are then inaccessible to stock and machinery.

This is moderately good mixed farmland although dairying and improved grassland and leys dominate. Autumn sown crops of wheat, barley and oil-seed rape are found throughout this type, but principally in the Bradley and Shirley Common/Brailsford areas in the east.

Ecology

Much of this landscape type is intensively farmed as permanent pasture or for cereals. The improved grassland and cultivated fields have little ecological interest. Where drainage is impeded, patches of wet grassland with rushes occur. Small fragments of degraded rush communities are found in damp patches and hollows.

Terrestrial corridors in the form of hedgerows and small blocks of broadleaved woodland persist but these are declining due to agricultural intensification and field amalgamation, most noticeably in the Shirley Common/Brailsford areas.

Where the underlying sandstone is closer to the surface, there are significant patches of bracken in hedgerows and along road verges. The network of lanes around Bradley is particularly rich in bracken.

The many marl pits support valuable base-rich wetland communities. Older pastures, particularly if poorly

drained, can develop a distinctive base-rich association. At Hulland Moss, a SSSI, there is an important example of lowland bog and heath with areas of dry oak and wet alder woodland.

Tree Cover

Boundary trees are scattered throughout giving filtered views, often over extensive areas. Occasional small blocks of broadleaved woodland and shelter groups are found.

The predominant tree species are oak and ash but there is also some sycamore. Remnant parkland blocks can be identified in some areas, most notably at Osmaston Park, with its double avenue of mature elm trees.

Enclosure

This is a landscape of generally medium sized, semi-regular fields, although the size and pattern has significant local variation as a result of the diverse history of enclosure. This varies from narrow, curving strip fields to the regular, almost geometric shapes resulting from the late enclosure of common lands as seen at Shirley Common. Former commons occur frequently in this type and the names are still retained, such as Snelston Common, Roston Common and Shirley Common.

Several pockets of very small irregular shaped fields still survive. A good example is the intricate fields pattern at Hole in the Wall near Yeldersley but there is also evidence of early enclosure of open fields at Bradley, Offcote and Underwood.

Irregular field patterns

The cultural pattern is generally intact here but is declining in the areas of regular shaped fields as a result of modern farming practice.

Fields are enclosed by hedgerows which can be species-rich in areas of earliest enclosure, with holly, hazel and field maple, to predominantly hawthorn in areas of late parliamentary enclosure.

Transport

The strong ridgelines characterising this landscape have been utilised for transport and there is a fairly dense network of country lanes. Former turnpike roads like the A52 and A517 took advantage of this higher ground. Many of the roads follow the ridgelines, tending to be straight and direct, especially where they cross former commons. Where roads cross former wasteland, names like Moor Lane, near Osmaston, reflect past character. In areas of early enclosure, where lanes are more curved, road verges are of irregular width, as opposed to the wider, more uniform width verges on former common. Many footpaths link settlements and dispersed farmsteads.

Two large military airfields were established in the 1940s, to the south of Ashbourne. Both are now used for alternative purposes. The cultural pattern of this area has been obliterated as a consequence of the removal of all field boundaries, small woodlands, the diversion of lanes and the levelling of ground on a large scale.

Built Environment

This is a landscape of widely scattered farmsteads and small settlements. The villages which are found on this landscape type, such as Bradley, Shirley, Yeaveley, Alkmonton and Wyaston, were originally very small nucleated settlements surrounded by open fields, mainly originating in the medieval period.

Elsewhere, dispersed common-side cottages can be found, typically with long, narrow gardens running parallel to the lanes and formed from the enclosure of wide verges.

Almost without exception, traditional buildings are built of mellow red brick with Staffordshire blue clay tile roofs.

Many settlements have grown in recent years with much unsympathetic suburban style housing, some in the form of ribbon development. Osmaston by contrast is an attractive, unspoilt estate village, with several thatched and rustic properties in the picturesque style of the early Victorian period.

Summary

A landscape shaped by its underlying geology of glacial drift over sandstone and shale, creating a landform of narrow, upland plateaux. Long distance views are limited by trees that are found scattered throughout most hedgerows. However, with incisions of lower lying land, there is a distinct sense of elevation.

Soils over glacial till are heavy and seasonally waterlogged, lending themselves to good quality pastures for dairy farming but the gently rolling landform ensures that the land-use is more mixed, with autumn-sown crops like barley and wheat.

The settlement pattern is a key feature. Although not densely populated, there is a general scattering of farm-steads with the occasional small village, like Bradley, Yeaveley and Wyaston, with their origins in the medieval period or earlier. The traditional buildings are typically built in brick with Staffordshire blue clay tile roofs.

Planting and Management Guidelines

A gently undulating pastoral landscape of very little woodland but densely scattered hedgerow trees.

Primary woodland character:	Thinly scattered small plantations
Primary tree character:	Densely scattered hedgerow trees
Woodland vision:	Thinly scattered small plantations
Tree vision:	Densely scattered hedgerow trees

Typical woodland size range:	0.5 - 5ha	small
Woodland pattern:	Regular plantations	

- Ensure the use of indigenous tree and shrub species, including a proportion of large, long-lived species.
- Ensure the management and enhancement of hedgerow trees, through selection and natural regeneration, or by planting.
- Ensure the conservation and management of mature/ veteran trees within hedgerows.
- Ensure new woodland does not conflict with features (e.g. ridge and furrow) that help to define landscape character.

Woodland Species Mix

Neutral/ More Acidic Soils

Primary Tree Species 50%

Acer campestre	Field Maple
Fraxinus excelsior	Ash
Quercus robur	Pedunculate Oak

Secondary Tree Species 20%

Major

Betula pendula	Silver Birch
Malus sylvestris	Crab Apple

Minor

Populus tremula	Aspen
Prunus avium	Wild Cherry
Prunus padus	Bird Cherry
Salix cinerea	Grey Willow
Sorbus aucuparia	Rowan
Taxus baccata	Yew

Shrubs 10-30%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn

Minor

Cornus sanguinea	Dogwood
Lonicera periclymenum	Honeysuckle
Prunus spinosa	Blackthorn
Rhamnus cathartica	Purging Buckthorn
Rosa canina	Dog Rose
Viburnum opulus	Guelder Rose

Open space 0-20%

Hedgerow Species Mix

Suitable hedgerow plants

Primary 70-75%

Crataegus monogyna	Hawthorn

Secondary 25-30%

Acer campestre	Field Maple
Corylus avellana	Hazel
Ilex aquifolium	Holly
Prunus spinosa	Blackthorn

Occasional 0-5%

Cornus sanguinea	Dogwood
Lonicera periclymenum	Honeysuckle
Rhamnus cathartica	Purging Buckthorn
Rosa canina	Dog Rose
Viburnum opulus	Guelder Rose

Suitable hedgerow trees

Primary 70-75%

Fraxinus excelsior	Ash
Quercus robur	Pedunculate Oak

Secondary 25-30%

Acer campestre	Field Maple

Occasional 0-5%*

Malus sylvestris	Crab Apple
Prunus avium	Wild Cherry
Prunus padus	Bird Cherry
Sorbus aucuparia	Rowan

* only to be used if occurring locally within the landscape character type

Needwood and South Derbyshire Claylands

LANDSCAPE TYPE: SETTLED FARMLANDS

An undulating to gently rolling, dairy farming landscape with hedgerow trees, dense watercourse trees and occasional small woodlands. A well-settled landscape of red brick farmsteads and cottages along winding country lanes.

Key Characteristics

- Gently undulating to rolling lowland dissected by minor stream valleys with localised steep slopes
- Seasonally waterlogged soils over Permo-Triassic Mudstone, Siltstone and Sandstone
- Dairy farming on permanent pasture with localised arable cropping
- Small woodland blocks and copses associated with steeper slopes
- Scattered oak and ash trees along hedgerows
- Dense lines of trees along streams
- Small to medium size, semi-regular and strip fields enclosed by hedgerows
- Extensive ridge and furrow
- Network of winding lanes often sunken on steeper slopes
- Small clusters of red brick and Staffordshire blue clay tile farms and cottages

Geology and Landform

The underlying geology of Permo-Triassic Mudstone, Siltstone and Sandstone and occasional Carboniferous Sandstone creates a broadly undulating to gently rolling lowland landscape. Where sandstone defines the eastern flank of the Dove Valley, the ground rises steeply to form a distinct escarpment before gradually falling away to the east, forming a series of incised valleys. The landform becomes ever more gentle and subdued towards the Trent Valley in the south.

Soils and Land-Use

As with much of the lowland Midlands, the soils are consistently reddish, fine loamy or silty over clay, with slowly permeable subsoils. The slow permeability of the subsoils makes them susceptible to short periods of waterlogging, making them difficult to cultivate and prone to poaching by livestock. Where the slopes are locally steep over sandstone, the soils are coarse loams and silts, and free-draining.

The land-use is predominantly dairying and stock rearing on improved permanent pasture and leys. There is some arable farming where the local topography and soil conditions dictate, particularly around Shirley, Brailsford and Somersal Herbert. Indeed, this is amongst some of the finest agricultural land found in the county being officially classified Grade 2.

Ecology

Much of this landscape is intensively farmed either as improved permanent pasture or arable cropping. As a result, much is of little ecological value. However, there are isolated patches of unimproved grassland and hay meadow, associated with small family farms and steeper slopes, which provide local floristic interest.

Terrestrial corridors are important with many well-managed, mixed species hedgerows. Hedgerow trees, predominantly oak and ash, add ecological interest.

Well-managed mixed species hedgerow

These terrestrial corridors are supplemented by a network of watercourses, fringed by dense lines of riparian trees. There are patches of rush pasture associated with the stream corridors, most notably at Mercaston Marsh, a designated SSSI.

On the steeper slopes in the west, there is more woodland, some of which is of ancient origin. Parkland, such as that at Snelston, provides additional ecological benefit with its many mature specimen trees and occasional small game coverts. The value of small plantation woodlands is often limited by the presence of coniferous species.

On the steepest slopes over sandstone, there at heathy associations, with bracken occasionally found in the hedgerows and road verges.

Tree Cover

The fertile soils and intensive agriculture associated with this landscape type ensure that woodland is poorly represented. Exceptions to this rule are interlocking woodlands like Eaton Wood and Bradley Wood, that follow the steeper slopes of the Dove and Henmore Valleys, creating a distinct wooded edge. Both woodlands are rare examples of ancient semi-natural woodland with oak and ash.

Despite the lack of woodland, tree cover is well represented throughout, due to the densely scattered hedgerow and watercourse trees. Collectively, these trees filter views through the landscape and, at lower elevations north of the Trent Valley, they create a strong sense of enclosure with more restricted views.

The well-treed character is further supplemented by localised parkland with its mature specimen trees and small mixed species game coverts. At Longford Park there are several small plantations and game coverts.

Enclosure

This is a landscape of predominantly small to medium sized, semi-regular fields enclosed by hedgerows, although the field size and pattern varies locally, reflecting the diverse history of enclosure. This cultural pattern remains essentially intact although there has been some field amalgamation in areas of arable farming.

Several examples of strip fields enclosed from former open fields survive, most notably in Hollington and Boylestone parishes, where fields display evidence of medieval ridge and furrow.

Fossilised strip fields associated with the nearby village of Hollington

Many hedgerows contain a good variety of species indicating age and maturity. These include holly, hazel, blackthorn, dog rose and hawthorn.

Transport

There is a dense network of winding lanes throughout this landscape, often with irregular width verges. In some areas, the network is so dense and intricate there is a choice of routes available between settlements. On the steeper slopes around Norbury and Snelston, lanes are very narrow and often sunken.

Adjacent to the Dove Valley, many routes run parallel to the river corridor, taking advantage of the natural gradients. In the south, lanes travel due north from the Trent Valley. The line of the former Ashbourne to Uttoxeter railway can clearly be seen following the edge of the flood plain to the River Dove and marking the western limits of this landscape type.

A former Roman road connecting Derby (Derventio) to Rocester is followed by the modern Long Lane, though this deviates from the original route at Alkmonton to follow an easier gradient.

There are many footpaths and green lanes connecting the small settlements and scattered farmstead.

Built Environment

This is a well settled but sparsely populated landscape containing small villages, isolated groups of roadside cottages and scattered farmsteads. Villages tend to be small, like Somersal Herbert and Marston Montgomery, and some loose knit, such as Roston and Norbury on the eastern flanks of the Dove. Many of the villages have their origins in the medieval period. Some have shrunken in size since the Middle Ages and are characterised by the earthworks of former crofts and tofts, such as at Thurvaston. Others have disappeared altogether and remain only as earthworks, leaving only single farms such as Hungry Bentley.

The predominant building material is a warm red brick with Staffordshire blue clay tiles. Some local reddish sandstone is also used, usually for more important buildings like the parish church and manor houses. A few timber framed buildings survive although these are no longer a prominent feature of the area.

Snelston has its own particular character, being the estate village of the former Stanton Hall, with a number of cottages and estate buildings in the picturesque style.

Most of the villages have grown very little, though modern infill development has modified their original loose knit character. Modern suburban development has been largely restricted to the outskirts of Ashbourne and Clifton.

Due to the intensive nature of the farming regime and the large size of some farms, bulky and poorly sited modern farm buildings dominate many areas. Some traditional farm buildings have been converted to residential use.

Summary

Like much of the Midlands lowlands, the landform and topography is shaped by the underlying sequence of Permo-Triassic Mudstones, Siltstones and Sandstones. The differential weathering of this geology gives rise to gently rolling landscape within incised valleys, locally undulating where the sandstone is most prevalent. Although there is some local variation in soils, relating to the variations in both geology and landform, they tend to be free-draining fine loams over clay subsoils that are prone to short-lived seasonal waterlogging.

A key feature of this landscape is its settled character. Although not densely populated, there is a general scattering of small villages, roadside cottages and farmsteads throughout, constructed in the vernacular style of red brick with Staffordshire blue clay tile roots, and a few older, timber framed buildings.

The area's settled nature reflects its long history of exploitation for agriculture. The predominant land-use is pastoral associated with dairying. Much of the permanent pasture is now improved and some fields have been set aside for fodder crops. Increasingly there is a trend for more arable farming, particularly where gradients and drainage allow.

Trees are well represented, associated with scattered hedgerow and dense lines of watercourse trees. Woodlands occur infrequently, mostly associated with the steeper slopes of the Dove Valley or localised parkland, in the form of small plantations and game coverts. The trees help to define the small to medium scale by filtering views through the landscape. At lower elevations towards the Trent Valley, tree cover can give a strong sense of enclosure, particularly on views to the north.

Planting and Management Guidelines

A gently undulating pastoral landscape of very few woodlands but densely scattered hedgerow and watercourse trees.

Primary woodland character:	Occasional small woodlands
Primary tree character:	Densely scattered hedgerow and dense watercourse trees
Woodland vision:	Occasional small woodlands
Tree vision:	Densely scattered hedgerow and dense watercourse trees

Typical woodland size range:	0.5 - 5ha	small
Woodland pattern:	Organic/ linear	

- Ensure the use of indigenous tree and shrub species, including a proportion of large, long-lived species.
- Ensure the management and enhancement of hedgerow trees, through selection and natural regeneration, or by planting.
- Enhance the visual and ecological continuity of river corridors by management, natural regeneration and planting of riparian trees.
- Ensure the conservation and management of mature/ veteran trees within hedgerows.
- Ensure new woodland does not conflict with features (e.g. ridge and furrow) that help to define landscape character.

Woodland Species Mix

Neutral/Slightly Acidic Soils

Primary Tree Species 50%

Acer campestre	Field Maple
Fraxinus excelsior	Ash
Quercus robur	Pedunculate Oak

Secondary Tree Species 20%

Major

Betula pendula	Silver Birch
Malus sylvestris	Crab Apple

Minor

Populus tremula	Aspen
Prunus avium	Wild Cherry
Prunus padus	Bird Cherry
Salix cinerea	Grey Willow
Sorbus aucuparia	Rowan
Taxus baccata	Yew

Shrubs 10-30%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn

Minor

Cornus sanguinea	Dogwood
Lonicera periclymenum	Honeysuckle
Prunus spinosa	Blackthorn
Rhamnus cathartica	Purging Buckthorn
Rosa canina	Dog Rose
Viburnum opulus	Guelder Rose

Open space 0-20%

Waterlogged Conditions on all soil types

Primary Tree Species 50%

†*Alnus glutinosa*	Alder
†*Salix fragilis*	Crack Willow

Secondary Tree Species 20%

Major

Betula pubescens	Downy Birch
Quercus petraea	Sessile Oak
Salix caprea	Goat Willow

Minor

Ilex aquifolium	Holly
Populus tremula	Aspen

Shrubs 10-30%

Major

Crataegus monogyna	Hawthorn

Minor

Prunus spinosa	Blackthorn
Rhamnus cathartica	Purging Buckthorn
Salix purpurea	Purple Willow
Salix triandra	Almond Willow
Salix viminalis	Osier

Open space 0-20%

† **Watercourse Trees** - tree species most appropriate for planting as watercourse trees.

Hedgerow Species Mix

Suitable hedgerow plants

Primary 70-75%

Crataegus monogyna	Hawthorn

Secondary 25-30%

Acer campestre	Field Maple
Corylus avellana	Hazel
Ilex aquifolium	Holly
Prunus spinosa	Blackthorn

Occasional 0-5%

Cornus sanguinea	Dogwood
Lonicera periclymenum	Honeysuckle
Rhamnus cathartica	Purging Buckthorn
Rosa canina	Dog Rose

Suitable hedgerow trees

Primary 70-75%

Fraxinus excelsior	Ash
Quercus robur	Pedunculate Oak

Secondary 25-30%

Acer campestre	Field Maple

Occasional 0-5%*

Malus sylvestris	Crab Apple
Prunus avium	Wild Cherry
Prunus padus	Bird Cherry
Sorbus aucuparia	Rowan

* only to be used if occurring locally within the landscape character type

Needwood and South Derbyshire Claylands

LANDSCAPE TYPE: SANDSTONE SLOPES AND HEATHS

A landscape of moderate to steep sandstone slopes with prominent rounded undulations and hillocks forming the upper slopes. A pastoral landscape, with small woodlands and scattered hedgerow trees.

Key Characteristics

- Moderate to steep sandstone slopes and valleys with rounded undulations
- Well-drained sandy soils
- A pastoral land-use on steeper slopes with mixed farming on gentler gradients
- Heathy associations with patches of gorse on steeper slopes and bracken along some hedgerows and road verges
- Tree cover defined by scattered hedgerow trees and patches of woodland
- Small to medium sized regular and sub-regular fields with mixed species hedgerows
- Sparsely settled landscape with the very occasional red brick and Staffordshire blue clay tile farmsteads and roadside cottages

Geology and Landform

This is a landscape associated with moderate to steeply sloping valleys and slopes created by an underlying geology of Permo-Triassic Sandstone. Differential erosion along the slopes, particularly those facing west, has created a series of visually prominent, rounded undulations and hillocks.

Soils and Land-Use

The sandstone bedrock gives rise to a reddish, coarse, sandy loam of variable depth, depending upon the steepness of slope. These soils are well-drained and, where managed, readily absorb winter rainfall even on the steepest slopes.

The relatively steep slopes and impoverished nature of the soils ensures that pasture predominates. However, where the slopes are moderately steep or gentle, the agriculture is more mixed with some arable cropping. Water retention is poor and areas under arable production need regular irrigation during the summer months. Topsoil can dry out very quickly and in cropping areas can be prone to wind erosion. In addition, cultivated steep slopes are especially susceptible to water erosion.

Ecology

These free-draining sandy soils will naturally support acid grassland and heathy habitats. In areas of unimproved pasture on the steepest slopes, patches of acid grassland persist. Where this grassland has become neglected, gorse is beginning to colonise and there are some sizeable patches of gorse thicket. In other areas of neglected pasture and grassland some localised scrub has developed.

Another habitat type of this landscape is woodland which features as small patches throughout but is rarely a prominent visual feature. It tends to occur on the steeper, upper slopes where land is less cultivable.

Ecological corridors are variable depending to some extent upon the enclosure patterns and land-use. In areas of smaller, irregular fields, the hedgerows are commonly mixed species with holly, hazel and blackthorn. In areas of mixed

farming and larger fields, the hedgerow network is more fragmented and beginning to lose its ecological function. In areas of late enclosure hedgerows are generally single species hawthorn.

Large mature hedgerow trees and the occasional parkland tree add to the ecological diversity.

Tree Cover

Tree cover is apparent throughout this landscape type but is rarely visually prominent. There are scattered boundary trees along hedgerows, often a mix of oak and ash. These are sparsely scattered in areas of mixed farming.

There are small woodlands usually associated with the steeper, less cultivable areas. The overall character is one of a well-treed landscape, but the undulating nature of the landform ensures that whilst there are open views across adjacent country, views through the landscape and along the slopes are often blocked or filtered by trees.

Enclosure

Fields are predominantly small to medium size and regular in outline, being more visually prominent in areas of mixed farming. On steeper slopes where woodland is traditionally more prevalent, fields may be smaller in size and more irregular in shape.

Hedgerows are predominantly hawthorn, though in areas of semi-regular fields or along historic boundaries, the hedgerows are more diverse, including species like hazel and holly.

Transport

Lanes through this landscape are infrequent and often restricted to a single route running through the valley bottoms or gentler gradients. When the occasional lane runs up a slope it is invariably winding with irregular width verges and often sunken. In areas of former common, like that at Hulland Ward, the lanes are straight and direct with wide, uniform road verges.

Built Environment

Settlement has been sparse in this landscape primarily due to steep, uncultivable slopes, although there are occasional farmsteads and cottages. Traditional building materials are almost exclusively red brick with Staffordshire blue clay tile roofs, with sandstone having been reserved mainly for churches and larger estate houses. In areas of remnant parkland, larger estate farms and cottages are evident. In areas of former common there are small groups of wayside cottages.

There are remains of medieval deer parks, notably Mansell Park and Ravensdale Park, associated with a once extensive hunting forest; Duffield Frith was established shortly after the Norman Conquest. Today there remain many fragmentary features including park pale, deer chase, old routeways and former fishponds.

Ravensdale Park deer chase

The main environmental impacts on this landscape are large scale sand and gravel quarrying, a concrete products factory and modern farm buildings, including large chicken sheds.

Summary

The underlying geology of Permo-Triassic Sandstone strongly influences both the physical and cultural characteristics of this landscape. The harder, more resistant sandstone weathers away more slowly to form this undulating landform of steep valley sides and slopes. Differential erosion has created visually prominent, rounded undulations and hillocks, most obvious on the west facing slopes.

Trees are well represented throughout, mainly as scattered hedgerow trees and the occasional small woodland. Views through the landscape are often restricted by both vegetation and landform, although there are views out across lower lying landscapes, particularly where this landscape occurs as a discrete slope.

The land-use is variable, depending upon the steepness of the slopes. It predominates as pasture with some mixed farming and arable on the gentler slopes. Where the pasture remains less intensive, there are areas of acid grassland. These support localised patches of gorse where the pasture is further neglected. This heathy association, as a result of the free-draining soils, is further evidenced by the amount of bracken that can be seen in road verges, hedgerows and woodland margins.

As a result of the low agricultural potential of this landscape, primarily due to landform, there is very little settlement throughout this landscape type. Some of the more remote slopes are unsettled whilst others have sparsely scattered farmsteads and estate cottages, built in the local red brick with Staffordshire blue clay tile roofs. In areas of former common there are small collections of wayside cottages. Remains of elements of a medieval deer park at Ravensdale constitute an impressive relict landscape.

Planting and Management Guidelines

Moderate to steeply undulating pastoral landscape with thinly scattered plantations and hedgerow trees.

Primary woodland character:	Thinly scattered small broadleaved plantations
Primary tree character:	Thinly scattered hedgerow trees
Woodland vision:	Thinly scattered small broadleaved plantations
Tree vision:	Thinly scattered hedgerow trees

Typical woodland size range:	0.5 - 10ha	small
Woodland pattern:	Regular plantations	

- Ensure the use of indigenous tree and shrub species, including a proportion of large, long-lived species.
- Ensure a balance is maintained between new woodland planting and areas of nature conservation value.

Woodland Species Mix

Neutral/ Slightly Acidic Soils

Primary Tree Species 50%

Acer campestre	Field Maple
Fraxinus excelsior	Ash
Quercus robur	Pedunculate Oak

Secondary Tree Species 20%

Major

Betula pendula	Silver Birch
Malus sylvestris	Crab Apple

Minor

Populus tremula	Aspen
Prunus avium	Wild Cherry
Prunus padus	Bird Cherry
Salix cinerea	Grey Willow
Sorbus aucuparia	Rowan
Taxus baccata	Yew

Shrubs 10-30%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn

Minor

Cornus sanguinea	Dogwood
Lonicera periclymenum	Honeysuckle
Prunus spinosa	Blackthorn
Rhamnus cathartica	Purging Buckthorn
Rosa canina	Dog Rose
Viburnum opulus	Guelder Rose

Open space 0-20%

Hedgerow Species Mix

Suitable hedgerow plants

Primary 70-75%

Crataegus monogyna	Hawthorn

Secondary 25-30%

Acer campestre	Field Maple
Corylus avellana	Hazel
Ilex aquifolium	Holly
Prunus spinosa	Blackthorn

Occasional 0-5%

Cornus sanguinea	Dogwood
Lonicera periclymenum	Honeysuckle
Rhamnus cathartica	Purging Buckthorn
Rosa canina	Dog Rose
Viburnum opulus	Guelder Rose

Suitable hedgerow trees

Primary 70-75%

Fraxinus excelsior	Ash

Secondary 25-30%

Acer campestre	Field Maple

Occasional 0-5%*

Malus sylvestris	Crab Apple
Prunus avium	Wild Cherry
Prunus padus	Bird Cherry
Sorbus aucuparia	Rowan

* only to be used if occurring locally within the landscape character type

Needwood and South Derbyshire Claylands

LANDSCAPE TYPE: ESTATE FARMLANDS

A broad, gently rolling lowland mixed farming landscape with occasional red brick villages, scattered estate farmsteads and country houses. Tree cover is well represented with small estate woodlands, dense watercourse trees, scattered hedgerow trees and localised parkland trees.

Key Characteristics

- Gently rolling lowland dissected by minor river valleys
- Seasonally waterlogged fine loamy soils over Permo-Triassic Mudstones, Siltstones and Sandstones
- Mixed farming with intensive arable cropping and improved permanent pasture
- Prominent estate woodlands with broadleaf and coniferous species
- Scattered oak and ash trees along hedgerows
- Dense lines of trees along streams
- Small to medium size semi-regular and regular fields enclosed by hedgerows
- Small villages constructed of red brick with Staffordshire blue clay tiled roofs
- Scattered red brick estate farmsteads and the occasional country house

Geology and Landform

The undulating geology comprises of alternating bands of Permo-Triassic Mudstones, Siltstones and Sandstones. The differential weathering and erosion of the bedrock has given rise to a gently rolling topography where the harder sandstone forms the shallow ridges and hills. Where sandstone is more prevalent in the bedrock the landform becomes more undulating with steeper slopes.

Soils and Land-Use

The underlying geology supports a deep, fine loamy soil with some slight local variation based on the precise nature of the bedrock. The subsoils are slowly permeable so these soils are prone to some seasonal waterlogging, although only for short periods.

The landform and soils collectively form land of above average quality for agriculture and, as a result, the land-use within this landscape type is mixed farming, with intensive arable cropping and improved permanent pasture. Pasture is most prevalent on the slightly heavier soils over mudstone and on the locally steeper slopes.

Ecology

Ecologically, this landscape type is poor as a result of intensive farming practices. The arable crops and improved permanent pastures and leys are of little ecological value. Remnant unimproved grassland is now confined to the road margins and the occasional field margin in pastoral areas.

Terrestrial corridors are strong with many good hedgerows and lines of trees along watercourses. The value of some hedgerows has been much reduced by poor management, with many hedgerows over-flailed and becoming gappy.

Numerous small woodland blocks interlink, forming a more complex network of habitats supplementing the terrestrial corridors. The value of some woodland blocks is

diminished by virtue of their more ornamental nature and composition of coniferous and non-native species.

Wet pasture and patches of marsh with *Juncus* are a feature of some of the minor stream valleys. Mercaston Marsh is an important wetland meadow site and is a designated SSSI. It exhibits a range of habitats which would once have been much more widespread in other stream valleys that dissect this landscape.

Bracken is occasionally present in road verges being indicative of a heathier habitat. This is most notable where the soils are freer draining, over sandstone or on steeper slopes.

Tree Cover

Trees and especially woodlands are well represented in this landscape type and play an important role in emphasising its estate character. Scattered, mature boundary trees, usually a mix of oak and ash, are found along most hedgerows. The wooded character is reinforced by dense lines of trees along watercourses, typically alder and willow but also the occasional oak or ash. In and around the small villages amenity trees are prominent, as are the parkland trees where they occur.

Woodlands tend to occur as small estate plantations, tree belts and small coverts, formerly managed by estates for game rearing. As a result, much of the estate woodlands are predominantly broadleaf species and have regular shaped outlines. Locally around Kedleston Park, the landscape appears to be more wooded due in part to the existence of some much larger woodlands.

Together the trees combine to restrict or filter views through the landscape. Where hedgerow trees are less obvious, woodland blocks may assist in framing longer views to landscapes beyond.

Enclosure

This is a landscape of small to medium size fields, which are predominantly sub-regular in shape but display much local variation in pattern as a result of the area's diverse history of enclosure. The intensification in arable farming in recent years has led to the loss of many field boundaries with numerous small fields amalgamated into larger units.

Around villages the fields tend to be smaller and semi-regular in shape, reflecting the enclosure of land from former open fields. Where these boundaries remain in good condition, the reverse 'S' of former selion strips can still be seen. In these areas of earlier enclosure, many of the hedgerows contain a good variety of species including holly, hazel, blackthorn and hawthorn.

Where land was enclosed from former parkland, the field pattern has a larger scale and regular outline and, as a result, has less diverse hedgerows with hawthorn as the main species.

Today the estate influence is still evident. Many of the hedgerows are formally managed and regularly flail cut into a box or trapezoid outline.

Transport

There is a dense network of winding lanes that reflect the irregular outline of the semi-regular fields or follow the easier gradients. These lanes with irregular width verges connect the small villages and scattered estate farmsteads.

There are many footpaths and green lanes which also connect the settlements. Many of these are historic routeways and are often bound by hedgerows with a diverse species composition.

Built Environment

This is a sparsely populated landscape. At Kedleston, this is the result of the removal of the village, as part of the creation of the landscaped park. Villages, like Weston Underwood and Mercaston, tend to be small and nucleated, often being located away from modern through routes. Most of these settlements have grown relatively little, although modern infill development is beginning to modify their original loose knit character.

Between the villages there are sparsely scattered large estate farmsteads, built in the local red brick with Staffordshire blue clay tile roofs.

A key feature of this landscape and quintessential to its character is the Kedleston Estate. Kedleston Hall is a Grade 1 listed building and a superb example of a Georgian country house. The house, its pleasure gardens and associated buildings stand within an outstanding landscaped park, all designed by Robert Adam. The pleasure gardens and park are a Grade 1 Registered Park and Garden.

Kedleston Hall

Summary

The landform and topography is shaped by the underlying sequence of Permo-Triassic Mudstones, Siltstones and Sandstones. The differential weathering of this geology gives rise to a gently rolling landscape, locally undulating where the sandstone is more prevalent. Although there is some local variation in soils, relating to the variations in both geology and landform, they tend to be free-draining fine loams that are prone to short-lived seasonal waterlogging.

However, it is not the physical factors that are most influencing the character of this landscape but its cultural associations with large estates and parks. These include both existing parks like that at Kedleston and former parks such as Meynell Langley.

Woodland is a dominant feature, affecting the character of the landscape, and influencing the views through it and from it to adjacent landscapes. The estate influences are clearly evident, with many of the woodlands being mixed species plantations, managed as game coverts or for commercial timber. The woodlands are generally small in size and have regular outlines. The wooded character of this landscape is further emphasised by dense lines of watercourse trees and scattered hedgerow trees.

The landscape is perceived as medium scale due to the small to medium size fields between the trees and woodlands. The fields display a variety of patterns, reflecting the diverse nature of enclosure and more recent effects of agricultural intensification. Many of the hedgerows are well-managed, and sometimes over-managed, by flail cutting.

At the heart of this landscape lies Kedleston Hall, one of the finest country houses in England, standing in an idealised ‘classical’ parkland landscape.

Planting and Management Guidelines

A gently rolling mixed farming landscape with densely scattered small estate plantations, hedgerow trees and watercourse trees.

Primary woodland character:	Densely scattered small mainly broadleaved plantations
Primary tree character:	Densely scattered hedgerow and dense watercourse trees
Woodland vision:	Densely scattered small mainly broadleaved plantations
Tree vision:	Densely scattered hedgerow and dense watercourse trees

Typical woodland size range:	0.5 - 5ha	small
Woodland pattern:	Regular plantations	

- Small-medium scale woodland planting.
- Promote linked extensions to ancient woodland by natural regeneration and planting.
- Re-establish and enhance physical links between existing isolated woodland and hedgerows.
- Enhance the visual and ecological continuity or river corridors by management, natural regeneration and planting of riparian trees.

Woodland Species Mix

Neutral/ Slightly Acidic Soils

Primary Tree Species 50%

Acer campestre	Field Maple
Fraxinus excelsior	Ash
Quercus robur	Pedunculate Oak

Secondary Tree Species 20%

Major

Betula pendula	Silver Birch
Malus sylvestris	Crab Apple

Minor

Populus tremula	Aspen
Prunus avium	Wild Cherry
Prunus padus	Bird Cherry
Salix cinerea	Grey Willow
Sorbus aucuparia	Rowan
Taxus baccata	Yew

Shrubs 10-30%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn

Minor

Cornus sanguinea	Dogwood
Ilex aquifolium	Holly
Lonicera periclymenum	Honeysuckle
Prunus spinosa	Blackthorn
Rhamnus cathartica	Purging Buckthorn
Rosa canina	Dog Rose
Viburnum opulus	Guelder Rose

Open space 0-20%

Waterlogged Conditions on all soil types

Primary Tree Species 50%

†*Alnus glutinosa*	Alder
†*Salix fragilis*	Crack Willow

Secondary Tree Species 20%

Major

Betula pubescens	Downy Birch
Salix caprea	Goat Willow

Minor

Populus tremula	Aspen

Shrubs 10-30%

Major

Crataegus monogyna	Hawthorn

Minor

Prunus spinosa	Blackthorn
Rhamnus cathartica	Purging Buckthorn
Salix purpurea	Purple Willow
Salix triandra	Almond Willow
Salix viminalis	Osier

Open space 0-20%

† **Watercourse Trees** - tree species most appropriate for planting as watercourse trees.

Hedgerow Species Mix

Suitable hedgerow plants

Primary 70-75%

Crataegus monogyna	Hawthorn

Secondary 25-30%

Acer campestre	Field Maple
Corylus avellana	Hazel
Ilex aquifolium	Holly
Prunus spinosa	Blackthorn

Occasional 0-5%

Cornus sanguinea	Dogwood
Lonicera periclymenum	Honeysuckle
Rhamnus cathartica	Purging Buckthorn
Rosa canina	Dog Rose

Suitable hedgerow trees

Primary 70-75%

Fraxinus excelsior	Ash
Quercus robur	Pedunculate Oak

Secondary 25-30%

Acer campestre	Field Maple

Occasional 0-5%*

Malus sylvestris	Crab Apple
Prunus avium	Wild Cherry
Prunus padus	Bird Cherry
Sorbus aucuparia	Rowan

* only to be used if occurring locally within the landscape character type

Needwood and South Derbyshire Claylands

LANDSCAPE TYPE: RIVERSIDE MEADOWS

Flat flood plains, containing meandering rivers and streams with dense trees along riverbanks. A pastoral landscape of large, hedged fields with trees scattered along boundaries.

Key Characteristics

- Flat flood plains containing meandering rivers and streams
- Seasonally waterlogged soils over alluvium
- Permanent pasture
- Localised patches of rushes in damp hollows
- Scattered locally dense trees along watercourses; widespread alder and localised willow
- Scattered trees along boundaries
- Regular shaped fields bounded by hawthorn hedges
- Lanes alongside or crossing the flood plain
- Active and disused railway lines with secondary woodland along embankments

Geology and Landform

The underlying sediment of these flat flood plains consists of alluvial mud lying over gravels, deposited by the rivers in times of flood. The gravel acts as an aquifer carrying water from the adjoining land into the rivers and so is permanently waterlogged. In places there are natural raised banks to the rivers known as levees. These are formed as a result of the deposition of sediment by waning floodwaters. The upper flood plain brooks are narrow, such as Sutton and Markeaton Brook. The flood plain broadens out down the lower part of the Dove.

Soils and Land-Use

The soils are seasonally waterlogged clayey loams. Some areas are more permanently waterlogged and some hollows retain floodwater long after the majority of floods have subsided. The predominant land-use is pastoral.

The flood plain makes good quality fattening pastures. The wet, fine textured soils and risk of flooding make the land difficult to work for arable cropping, although some arable fields can be found in the lower Dove Valley as a result of recent drainage improvements and flood protection measures.

Ecology

The Sutton Brook and its tributaries are narrow with unpolluted water making it very valuable as a freshwater habitat. The River Dove is fairly wide and deep with relatively clean water. All these watercourses are important wildlife habitats, as are their banks and margins. Some old oxbow lakes, such as Old Marston SSSI, are diverse habitats of value as part of the river corridor.

The remaining unimproved pasture occurs in concentrations along the Dove, north of Doveridge. Pasture with a high water table and where the soil is permanently wet is important ecologically for its species-rich flora, ground beetles and birds, such as curlew and snipe. However, such habitats are becoming increasingly rare, as former pastures have often been converted to arable following drainage improvements.

Further habitat diversity is provided by bands of scrub and secondary woodland that fringe transport corridors.

Improved drainage, conversion to arable and localised culverting is

leading to a significant loss of meadowland.

Pastoral grazing on the flood plain

Tree Cover

There are dense lines of trees along riverbanks, mainly alder with occasional willows. Some trees have been removed from the riverbanks, as part of flood protection works, and there is die-back in other places.

There are also mature trees scattered along fields boundaries, chiefly oak, ash and willow.

Both watercourse and boundary trees are noticeably denser in the more intimate landscape of the Sutton Brook valley, giving a more wooded aspect.

Enclosure

Fields are medium to large sized and of sub-regular shape; the larger fields being found in the lower river valleys. Many of the boundaries are comprised of tall and gappy thorn hedgerows. Some fields have evidence of medieval ridge and furrow.

Transport

The lanes and major roads tend to run along the edge of the flood plain, raised on embankments that minimise the risk of flooding. Occasionally, roads cross the valleys on bridges over the rivers.

The railways follow the floor of the flood plain along the Dove, often on raised embankments.

Built Environment

Historically there would have been little built development on the flood plain, excepting the occasional water mill for grinding corn. There are occasional farmsteads on the higher, better drained areas. Due to their unsuitability for built development, some flood plain areas have been made over to recreational use. Sections of the river and meadowland are lost entirely in places where they have been culverted or drained.

Summary

This flat river meadow landscape is characterised by a narrow alluvium flood plain in the upper river and brook valleys, which broaden out in the lower Dove. The upper river and brook areas are more treed and, as they are also narrower, have filtered views and are more intimate. Views become more open as the tree cover becomes scattered along the lower stretches of the rivers, where there are less hedgerow trees and the flood plain widens.

Medium to large sized pastoral fields of sub-regular shape are enclosed by hedgerows, many of which are gappy and neglected. Historical ridge and furrow add local distinctiveness to the river meadow fields. Changes to river meadows, by the introduction of drainage schemes to produce improved pasture and arable farmland, are threatening the river meadow pastoral landscape.

Although largely unsettled, transport routes (road and railway) dominate the landscape in the lower Dove.

Planting and Management Guidelines

An open flood plain with dense watercourse trees.

Primary woodland character:	Unwooded
Primary tree character:	Dense watercourse trees
Woodland vision:	Occasional small wet woodlands
Tree vision:	Dense watercourse trees

Typical woodland size range:	0.5 - 5ha
Woodland pattern:	Organic/ linear

- Ensure the use of indigenous tree and shrub species, including a proportion of large, long-lived species.
- Ensure a balance is maintained between new woodland planting and areas of nature conservation value.
- Enhance the visual and ecological continuity of river corridors by management, natural regeneration and planting of riparian trees.
- Encourage the continuing practice of pollarding to maintain the traditional riparian character of the landscape.

Woodland Species Mix

Waterlogged Conditions on all soil types

Primary Tree Species 50%

† *Alnus glutinosa*	Alder
† *Salix fragilis*	Crack Willow

Secondary Tree Species 20%

Major

Betula pubescens	Downy Birch
Salix caprea	Goat Willow

Minor

Ilex aquifolium	Holly
Populus tremula	Aspen

Shrubs 10-30%

Major

Crataegus monogyna	Hawthorn

Minor

Prunus spinosa	Blackthorn
Rhamnus cathartica	Purging Buckthorn
Salix purpurea	Purple Willow
Salix triandra	Almond Willow
Salix viminalis	Osier

Open space 0-20%

† **Watercourse Trees** - tree species most appropriate for planting as watercourse trees.

Hedgerow Species Mix

Suitable hedgerow plants

Primary 85-100%

Crataegus monogyna	Hawthorn

Occasional 0-15%

Acer campestre	Field Maple
Prunus spinosa	Blackthorn

Suitable hedgerow trees

Primary 70-75%

Fraxinus excelsior	Ash
Quercus robur	Pedunculate Oak
Salix fragilis	Crack Willow

Secondary 25-30%

Acer campestre	Field Maple

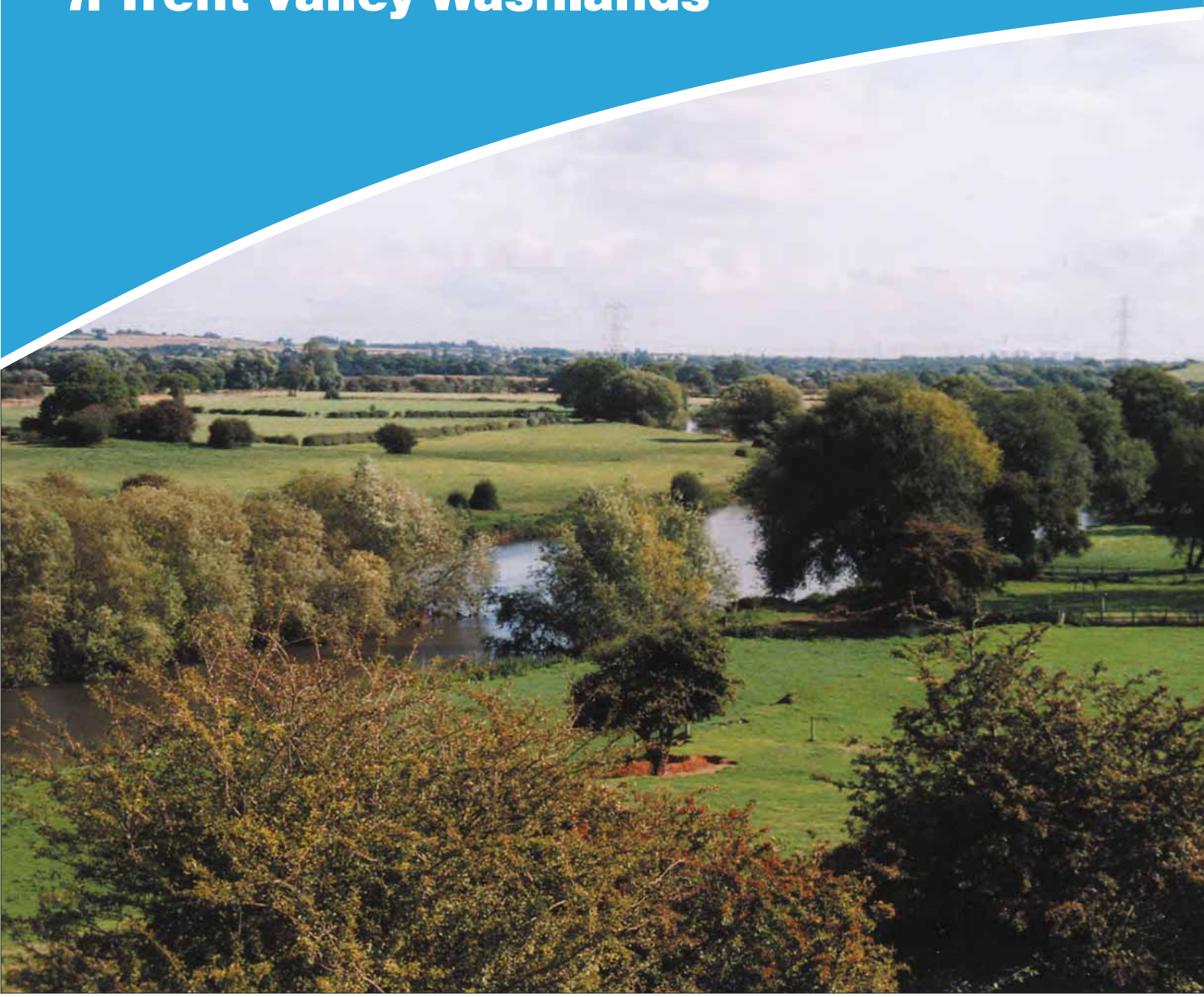
Occasional 0-5%*

Malus sylvestris	Crab Apple
Prunus avium	Wild Cherry
Prunus padus	Bird Cherry
Sorbus aucuparia	Rowan

* only to be used if occurring locally within the landscape character type

Part One: Landscape Character Descriptions

7. Trent Valley Washlands



Landscape Character Types

- Lowland Village Farmlands 7.4
- Wet Pasture Meadows 7.9
- Riverside Meadows 7.13

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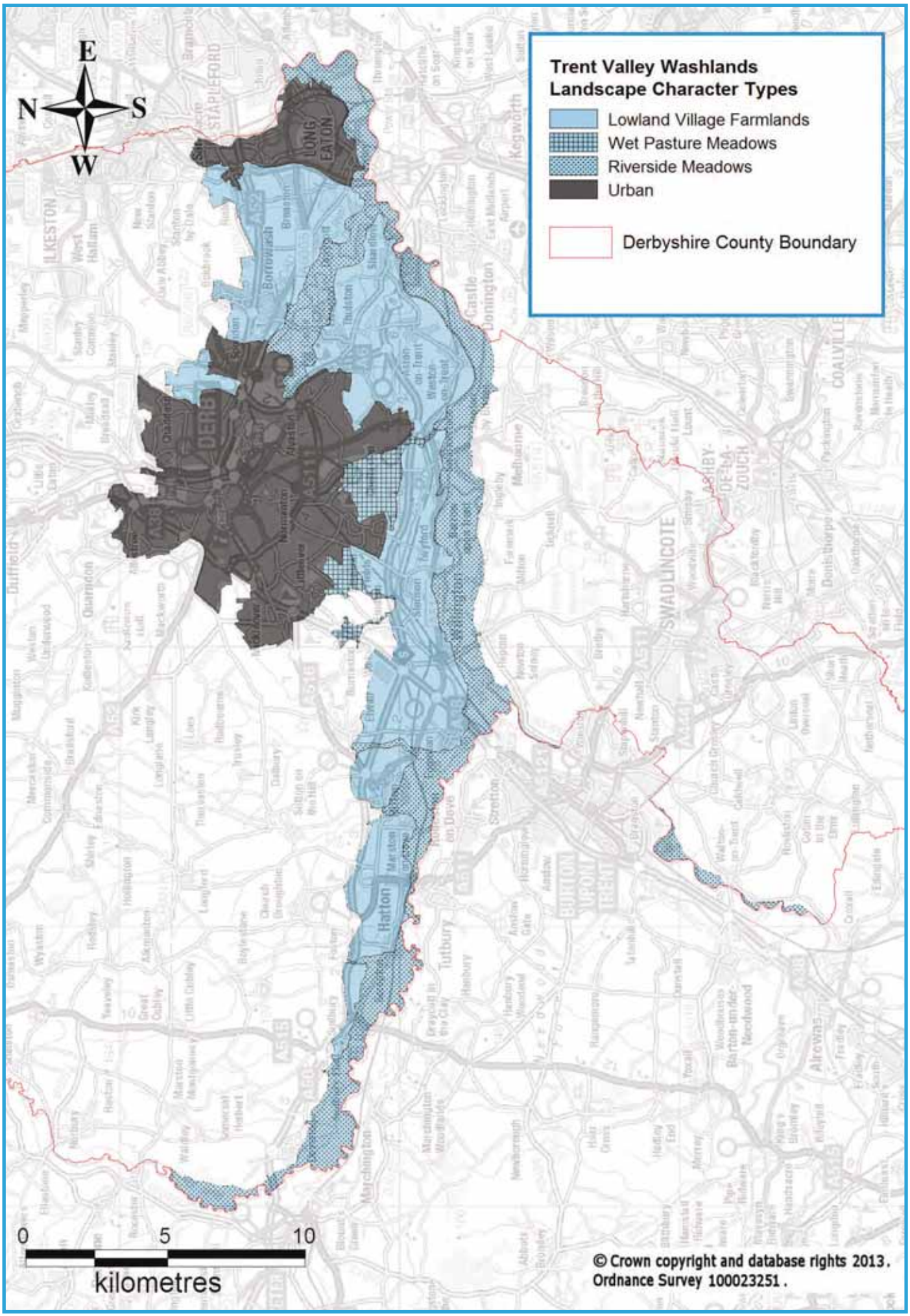
Trent Valley Washlands
Landscape Character Types
Lowland Village Farmlands
Wet Pasture Meadows
Riverside Meadows
Urban
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Ordnance Survey 100023251.

Trent Valley Washlands

CHARACTER AREA 69

An agricultural landscape set within broad, open river valleys with many urban features.

Landscape Character Types

- Lowland Village Farmlands
- Wet Pasture Meadows
- Riverside Meadows

"We therefore continue our course along the arched causeway glancing on either side at the fertile meadows which receive old Trent's annual bounty, in the shape of fattening floods, and which amply return the favour by supporting herds of splendid cattle upon his water-worn banks..."

p248 Hicklin; Wallis 'Bemrose's Guide to Derbyshire'

Introduction

The Trent Valley Washlands constitute a distinct, broad, linear band which follows the middle reaches of the slow flowing River Trent, forming a crescent from Burton on Trent in the west to Long Eaton in the east. It also includes the lower reaches of the rivers Dove and Derwent.

To the north the valley rises up to the South Derbyshire Claylands and the Derbyshire Coalfield, whilst the south is bounded by the Melbourne Parklands and Mease/Sence Lowlands.

This is a somewhat fragmented landscape of pastoral and arable land, intermixed with urban development, transport routes and localised mineral extraction. The rivers regularly flood over the adjacent land creating a temporary but very different scene.

The broad, meandering rivers are unobtrusive and often only revealed by lines of willows and poplars. In the *Riverside Meadows*, permanent pasture is occasionally defined by small, hedged fields with scattered hedgerow trees, but more frequently by medium to large hedged fields with sparsely scattered trees. On the raised river terraces of the *Lowland Village Farmlands*, pasture gives way to mixed farming with larger more regular sized fields. Within these arable areas, hedgerows are low and tightly trimmed and hedgerow trees are few. Woodlands are few throughout the area although occasionally the full growth of riparian trees and shrubs give the impression of woodland cover.

Large power stations once dominated the scene with their massive cooling towers. Most of these have become decommissioned and will soon be demolished.

Sand and gravel extraction and subsequent restoration has created localised areas of open water. Major roads like the A50, south of Derby, and the A52, from Derby to Nottingham, further dissect the area.

Physical Influences

The area is defined by an underlying geology of Mercia Mudstones overlain with a variety of fluvioglacial, periglacial and river deposits of mostly sand and gravel, to form terraces flanking the rivers.

The gravel terraces of the *Lowland Village Farmlands* form coarse, sandy loam, whilst the *Riverside Meadows* are predominantly a heavy clay loam. Locally distinct to the Midlands and occurring only in a few areas south of Derby, at Stenson Fields and Sinfin Moor, the *Wet Pasture Meadows* are characterised by grey, calcareous clays affected by ground water and occasional flooding.

These variations in soils and levels have determined the nature of agricultural practices and settlement patterns. Mixed farming and the villages of the *Lowland Village Farmlands* are located on the slightly higher levels which are freer draining and less prone to flooding, whilst the unsettled pastoral areas form the *Riverside Meadows* of the flood plain. The open flood plains play a vital role in coping with increased volumes of water in the Trent system during times of flood.

Natural Influences

Agriculture remains the predominant land-use with improved pasture and arable on the slightly higher river terraces of the *Lowland Village Farmlands*. Pasture is the main land-use adjacent to the river on the *Riverside Meadows*.

Areas of traditional semi-natural habitats, such as wet grasslands and marsh, small fields with species-rich grasslands, ponds and ditches, and wet woodlands, have all been marginalised or isolated by modern farming practice and the deepening and canalisation of the River Trent, which has drained adjacent land. In some areas there has been considerable loss of hedgerows through removal to enlarge fields for arable crops or through neglect.

The rivers themselves and their tributaries are recognised as valuable wildlife corridors both for terrestrial animals and migratory birds. Mineral extraction has created additional open water areas, marshes and wet woodland, some of which have become important wildlife habitats.

Human Influences

The Trent Valley has been a focus of human activity since early prehistory. The gravel terraces with their light soils attracted settlement from the Neolithic period onwards and, from as early as the Iron Age, there is evidence for the establishment of boundaries within the landscape.

The evidence for these settlements and field systems is now generally only visible on aerial photographs, although some upstanding monuments do survive, such as the prehistoric barrows at Swarkestone Lowes and Round Hill in Twyford and Stenson Parish.

As is often the case, the pattern of settlement and enclosure visible today was established in the Anglo-Saxon Period, as place names such as Aston and Weston-on-Trent or Swarkestone indicate. Enclosure of the medieval open fields and commons by parliamentary enclosure and private agreement had begun by the 18th century. The enclosures are generally quite large and regular, and many have been enlarged in recent decades. Some areas of ridge and furrow survive but much has been lost due to intensive arable farming.

The villages of the *Lowland Village Farmlands* are compact and nucleated although settlements, such as Hilton, Breaston and Draycott, have expanded rapidly in the 20th century to sprawl across the valley. The traditional building materials of the historic settlements are red brick with Staffordshire blue clay tile roofs. High status buildings are constructed from imported sandstones.

With the developing use of water power, mills were constructed on the more accessible tributaries in the flood plain. However, the risk of flooding restricted settlement on the *Riverside Meadows*. When water power was replaced by coal, the proximity of the Derbyshire Coalfield and an improving transport network in the 18th and 19th centuries, led to the growth of the textile and engineering industries.

In the 20th century, plentiful supplies of nearby coal, as well as easy access by rail, led to the construction of large coal-fired power stations. The Trent Valley continues to accommodate important transport routes with road, rail and canals threading through its length. Modern roads like the A50 and A52 have a major impact on the landscape as they cross the area from east to west, often dissecting historic lanes across the flood plain.

The underlying mineral deposits have resulted in extensive gravel extraction in the lower Dove and Trent flood plains. The restoration of gravel pits is changing from agricultural after-uses to open water, resulting from the lack of suitable fill material. In some sections of the Trent, active gravel extraction and open water strongly influences the landscape character.

Other Considerations

- The Lowland Derbyshire BAP
- On Trent Initiative
- Trent Valley Supplementary Planning Guidance
- Trent Valley Vision

** For more information on the Trent Valley Vision see the Introduction.*

Swarkestone Bridge and Causeway

Trent Valley Washlands

LANDSCAPE TYPE: LOWLAND VILLAGE FARMLANDS

This is a large scale, open, gently rolling lowland landscape associated with the lower slopes and terraces of broad flood plains. A mixed farming landscape defined by medium to large regular fields with thorn hedges, punctuated by villages.

Key Characteristics

- Gently rolling, almost flat, lowland with river terraces
- Low slopes and summits give a sense of elevation over a broad flood plain
- Mixed farming with arable cropping and improved pasture
- Thinly scattered hedgerow trees including some willow pollards
- Scattered, locally dense, watercourse trees
- Medium to large regular fields with thorn hedgerows
- Discrete red brick villages with farms and cottages
- Large red brick outlying farms

Geology and Landform

The underlying geology comprises alternating bands of Permo-Triassic Mudstones and Siltstones. Within the Trent Valley, the bedrock has been overlain with a variety of fluvioglacial drifts, river terrace deposits and alluvium.

Soils and Land-Use

The soils are variable, relating to the underlying geology and drift material. Soils developed from the fluvial drift and river terrace deposits are deep and permeable. They are variably affected by ground water which supports short-term grassland and cereals. Other soil types are slowly permeable and seasonally waterlogged comprising of reddish, fine loamy clays and other clay soils derived from Permo-Triassic Mudstone and alluvium. These support winter cereals, short-term grassland, dairy and stock rearing. Fields respond well to under-drainage but the less permeable soils can suffer from cattle poaching and a limited autumn season for sowing crops.

The traditional land-use is mixed farming with arable crops and improved pasture, reflecting the variation in the underlying soils. Grassland is now restricted to the areas of heaviest soils and smaller field parcels associated with the villages. The presence of fluvioglacial and river gravels has led to localised quarrying.

Ecology

With a long tradition of mixed farming with intensive cropping, this landscape is ecologically poor. Terrestrial corridors, in the form of hedgerows, streams and ditches persist but these are becoming poorer owing to neglect, drainage schemes and further agricultural intensification.

Developing habitat at Willington

Canals and standing open water provide additional habitat opportunities for wetland flora and fauna, such as those found at the Hilton Gravel Pits SSSI. Further gravel extraction is providing opportunities for increasing wetland habitats but there are constraints due to issues such as the proximity to East Midlands Airport, flood flows and availability of suitable fill.

Tree Cover

Tree cover is variable throughout this landscape character type, although it is rarely visually prominent. Sparsely scattered hedgerow trees are locally prominent where the fields are smaller, particularly in association with villages. Hedgerow trees are generally a mix of oak and ash with some willow. Many of the willows have been pollarded and form visually distinctive features. There are scattered, locally dense trees along watercourses; predominantly alder with some willow. There are localised parkland trees and avenues around Elvaston Park, and small amenity tree groups are found adjacent to scattered farmsteads. In areas of former common, tree cover is very sparse.

Woodland is largely absent from this landscape, or occurs as small, sparsely scattered blocks. There are some small estate woodlands in the proximity of Elvaston.

Enclosure

The enclosure pattern is an important characteristic in defining the scale of this landscape type. Hedgerows, predominantly hawthorn, enclose medium to large semi-regular and regular fields. In areas of former common, as at Etwall Common and around Hilton, the regular field pattern is particularly prominent. In areas of earliest enclosure, immediately surrounding settlements, hedgerows tend to be more mixed in composition and fields tend to be smaller and more sub-regular. Some of these smaller fields have patches of ridge and furrow, indicative of earlier medieval field systems. Many hedgerows are now poorly managed being over-flailed and becoming gappy. Some hedgerows have been lost to agricultural intensification.

Transport

Country lanes are few and most are organic in character with irregular width verges. These lanes connect the villages and scattered farmsteads, and connect with crossing points in the Trent Valley. There are also lanes running parallel to the flood plain taking advantage of the slight elevation to avoid the risk of flooding.

The importance of this landscape as a transport corridor is still evident, with the expansion and construction of roads like the A50 and A52, both forming important east-west connections. These are busy routes and form a prominent visual intrusion in the landscape. Modern roads have also impacted on the character of the traditional lanes, many of which have been widened to pass over new roads or been truncated by them

The Trent and Mersey Canal was once a major industrial transport route. It now caters mainly for recreational water traffic crossing the area from south-east of Egginton eastwards to Swarkestone.

Built Environment

Settlements are generally nucleated and some are much extended. Early settlement in the flood plain was constrained by both flooding of the valley bottoms and by heavy clays. As a result, settlements are located on the gentle slopes and gravel river terraces, immediately off the flood plain, where drainage is better. In fact, the gravel terraces were settled and utilised from early prehistoric times, particularly from the Neolithic onwards.

Villages are compact, with cottages and farms built in the vernacular style of red brick with Staffordshire blue clay tile roofs.

Aston-on-Trent

Between the villages there are sparsely scattered farmsteads, again built in red brick. Adjacent to former commons there are small collections of wayside cottages.

A significant feature within this landscape is Elvaston Castle with its formal grounds and estate plantations.

The combination of proximity to Derby and Nottingham, and location on good transport corridors, has led to the rapid expansion of many villages, particularly noticeable at Hatton, Hilton, Borrowash and Breaston. Today the urban fringes are characterised by large modern housing estates.

Other impacts in this landscape relate to power stations like that at Willington with its extensive plant, pylons and overhead power lines. There have also been major changes to landscape character as a result of large scale mineral extraction.

Summary

The soft rocks of Permo-Triassic Mudstones and Siltstones with drift deposits have weathered away to form a very subdued, gently rolling lowland landscape that has strongly influenced the cultural patterns of the landscape. Soils reflect the geological variation, with heavy seasonally waterlogged soils over mudstone, and more permeable soils over localised drift and river terrace deposits. The resultant land-use is typically mixed, with cropping on the flatter, more cultivable, soils and improved pasture in damper areas.

A key feature of this landscape is its nucleated settlement pattern. Villages like Hatton and Weston-on-Trent are located on relatively high spots or better drained land immediately off the flood plain, in order to reduce the risk of flooding. The enclosure pattern reflects a diverse history. Immediately adjacent to the villages, fields are medium size, semi-regular, with areas of ridge and furrow reflecting the enclosure of medieval open fields. The hedges that enclose these fields are species-rich. Beyond the villages there is a more regular pattern of fields suggesting a period of later enclosure and typically, the hedgerows are single species hawthorn. The more regular fields are most obvious in areas of former common like Etwall Common and Egginton Common.

Villages are traditionally compact with cottages and farmsteads built in the local material of red brick with Staffordshire blue clay tile roofs. Some of these settlements like Hatton, Hilton, Breaston and Borrowash have undergone rapid expansion with the construction of new housing estates to serve the city of Derby.

Much of the original character of this landscape has been seriously impacted upon by modern large scale development. Large power stations dominate views across the landscape as do the many pylons carrying the resultant electricity. The gentle topography above the flood plain has always been attractive for road construction and modern roads, like the A50 and A52, pass through this landscape. The underlying mineral deposits have resulted in sand and gravel extraction, and the restoration of these sites has created areas of immature agricultural land and large water bodies.

Planting and Management Guidelines

Open, mixed farming landscape with thinly scattered plantations and hedgerow trees.

Primary woodland character:	Thinly scattered small plantations
Primary tree character:	Thinly scattered hedgerow trees
Woodland vision:	Widespread interconnecting woodland
Tree vision:	Thinly scattered hedgerow trees

Typical woodland size range:	0.5 - 10ha	small
Woodland pattern:	Regular plantations	

- Ensure the use of indigenous tree and shrub species, including a proportion of large, long-lived species.
- Conserve and enhance the tree groups that occur within and around rural settlements and isolated farmsteads.
- Encourage the continuing practice of pollarding to maintain the traditional riparian character of the landscape.
- Ensure new woodland does not conflict with features (e.g. ridge and furrow) that help to define landscape character.

Note
This guidance may be subject to variation following the emergence of the Trent Valley Vision and Strategy.

Woodland Species Mix

Neutral/ Base-Rich Soils

Primary Tree Species 50%

Fraxinus excelsior	Ash
Quercus robur	Pedunculate Oak

Secondary Tree Species 20%

Major

Acer campestre	Field Maple
Ilex aquifolium	Holly

Minor

Malus sylvestris	Crab Apple
Populus tremula	Aspen
Sorbus aucuparia	Rowan
Tilia cordata	Small Leaved Lime

Shrubs 10-30%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn

Minor

Prunus spinosa	Blackthorn
Rhamnus cathartica	Purging Buckthorn
Salix cinerea	Grey Willow

Open space 0-20%

Waterlogged Conditions on all soil types

Primary Tree Species 50%

† *Alnus glutinosa*	Alder
† *Salix fragilis*	Crack Willow

Secondary Tree Species 20%

Major

Betula pubescens	Downy Birch
Fraxinus excelsior	Ash

Minor

* *Populus nigra ssp. betulifolia*	Black Poplar
Quercus robur	Pedunculate Oak
Salix caprea	Goat Willow

Shrubs 10-30%

Major

Salix cinerea	Grey Willow
Sambucus nigra	Elder
Salix aurita	Eared Willow

Minor

Crataegus monogyna	Hawthorn
Frangula alnus	Alder Buckthorn
Rhamnus cathartica	Purging Buckthorn
Salix viminalis	Osier
Viburnum opulus	Guelder Rose

Open space 0-20%

† **Watercourse Trees** - tree species most appropriate for planting as watercourse trees.

* Plant only **native** Black Poplar (sub species betulifolia). Contact Derbyshire Wildlife Trust for more information.

Hedgerow Species Mix

Suitable hedgerow plants

Primary 70-75%

Crataegus monogyna	Hawthorn

Secondary 25-30%

Acer campestre	Field Maple
Corylus avellana	Hazel
Ilex aquifolium	Holly
Prunus spinosa	Blackthorn

Occasional 0-5%

Rhamnus cathartica	Purging Buckthorn

Suitable hedgerow trees

Primary 95-100%

Fraxinus excelsior	Ash
Quercus robur	Pedunculate Oak

Secondary 25-30%

Acer campestre	Field Maple
Tilia cordata	Small Leaved Lime

Occasional 0-5%*

Malus sylvestris	Crab Apple
Populus tremula	Aspen
Sorbus aucuparia	Rowan

* only to be used if occurring locally within the landscape character type

Trent Valley Washlands

LANDSCAPE TYPE: WET PASTURE MEADOWS

A flat, low-lying mixed farming landscape, with regular and geometric field patterns. Hawthorn hedgerows enclose fields and there are scattered trees, including willow pollards along hedges and ditches.

Key Characteristics

- Flat low-lying irregular shaped basins
- Waterlogged soils
- Mixed farming with patches of unimproved grassland
- Scattered trees along hedgerows and ditches
- Visually prominent willow pollards
- Medium to large regular or geometric shaped fields with hawthorn hedgerows
- Largely uninhabited with very occasional, large, red brick farmsteads

Geology and Landform

This is a flat, low-lying landscape, defined by irregular shaped basins, fringed by low hills and slopes. The underlying geology is that of river and lacustrine (lake) alluvium. Around the edges these deposits overlay Triassic Mudstone.

Soils and Land-Use

The soils are locally distinctive in the Midlands, occurring only in these few areas to the south of Derby at Stenson Fields and Sinfin Moor. They are typically grey calcareous clays, affected by groundwater and occasional flooding.

The land-use is mixed farming with an increasing move towards arable. Winter waterlogging is common and grazing is restricted during wet periods to prevent poaching. The water level is increasingly being controlled by ditches and field drainage, allowing for more extensive cropping. Opportunities for spring cultivation are limited, so winter cereals form the main crop.

Ecology

Intensification of farming and an increasing move towards cropping means that the ecological value of this landscape is diminishing. Many of the inherent habitat types would be associated with wetland habitats. Today there are still patches of unimproved grassland and rush pasture.

Terrestrial corridors are widespread with an extensive network of tall hedgerows, for the most part hawthorn with some elm.

Tree Cover

Tree cover is not a prominent feature of this landscape, although trees are well represented throughout and, coupled with tall hedgerows, provide filtered views. There are scattered trees along most hedgerows, ditches and minor streams, which tend to be a mix of oak, ash and willow. The willows form distinctive features, especially where they have been pollarded.

Enclosure

The enclosure pattern is of particularly distinctive form, created by Parliamentary Award and Agreement. The fields are medium to large in size and have regular or geometric outlines. They are enclosed by hawthorn hedges with

some elm, typical of late enclosed landscapes, and place names like Sinfin Moor are indicative of areas of former waste. It is often the size of the fields that help to define the scale of this landscape.

Large, regular fields indicate enclosure of former common

Transport

Few roads cross this landscape, due to its generally uninhabited nature. Where roads occur they are straight and direct, with uniform width verges, as a result of the pattern set out by parliamentary enclosure.

To the north of Findern, the A38 crosses the landscape on an embankment, creating a major visual intrusion.

Built Environment

This is traditionally an uninhabited landscape due to the risk of flooding, although there are occasional scattered farmsteads. These farmsteads are generally large in size, were probably established at the time of enclosure, and typically are constructed of red brick with Staffordshire blue clay tile roofs.

This landscape immediately abuts the urban fringes of Derby and urban expansion, especially residential, is having a major impact on this landscape type.

Summary

This is a flat, low-lying landscape associated with irregularly shaped alluvial and lacustrine basins, fringed by low hills and slopes. The soils are poorly draining and prone to flooding. As a result, the landscape has remained largely uninhabited, other than a few sparsely scattered red brick farmsteads.

The heavy soils and risk of flooding has led to the development of a mixed farming system. With improvements to drainage, there is a growing emphasis on arable cropping, although because of the difficulty of spring cultivation, these remain restricted to winter cereals.

A key characteristic of this landscape is its enclosure pattern. Much of the agricultural land, having originated from former wasteland, was enclosed as part of the Parliamentary Enclosure Acts. The resultant fields are typically regular to geometric in shape and medium to large in size, usually enclosed by tall hawthorn hedgerows with some elm. Trees are apparent throughout, usually scattered along hedgerows, ditches and minor streams. Pollarded willows are a particularly distinctive feature.

Planting and Management Guidelines

Low-lying, almost flat, mixed farming landscape with thinly scattered hedgerow and watercourse trees but no woodland.

Primary woodland character:	Unwooded
Primary tree character:	Thinly scattered hedgerow trees and scattered watercourse trees
Woodland vision:	Occasional small wet woodlands
Tree vision:	Thinly scattered hedgerow trees and scattered watercourse trees

Typical woodland size range:	0.5 - 15ha	small
Woodland pattern:	Regular	

- Ensure the use of indigenous tree and shrub species, including a proportion of large, long-lived species.
- Ensure a balance is maintained between new woodland planting and areas of nature conservation value.
- Enhance the visual and ecological continuity of river corridors by management, natural regeneration and planting of riparian trees.
- Encourage the continuing practice of pollarding to maintain the traditional riparian character of the landscape.

Note
This guidance may be subject to variation following the emergence of the Trent Valley Vision and Strategy.

Woodland Species Mix

Neutral/ Base-Rich Soils

Primary Tree Species 50%

Fraxinus excelsior	Ash
Quercus robur	Pedunculate Oak

Secondary Tree Species 20%

Major

Acer campestre	Field Maple
Ilex aquifolium	Holly

Minor

Malus sylvestris	Crab Apple
Populus tremula	Aspen
Sorbus aucuparia	Rowan
Tilia cordata	Small Leaved Lime

Shrubs 10-30%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn

Minor

Prunus spinosa	Blackthorn
Rhamnus cathartica	Purging Buckthorn
Salix cinerea	Grey Willow

Open space 0-20%

Waterlogged Conditions on all soil types

Primary Tree Species 50%

Alnus glutinosa	Alder
† *Salix fragilis*	Crack Willow

Secondary Tree Species 20%

Major

Betula pubescens	Downy Birch
Fraxinus excelsior	Ash

Minor

* *Populus nigra ssp. betulifolia*	Black Poplar
Quercus robur	Pedunculate Oak
Salix caprea	Goat Willow

Shrubs 10-30%

Major

Salix cinerea	Grey Willow
Sambucus nigra	Elder

Minor

Crataegus monogyna	Hawthorn
Frangula alnus	Alder Buckthorn
Rhamnus cathartica	Purging Buckthorn
Salix viminalis	Osier
Viburnum opulus	Guelder Rose

Open space 0-20%

† **Watercourse Trees** - tree species most appropriate for planting as watercourse trees.

* Plant only **native** Black Poplar (sub species betulifolia). Contact Derbyshire Wildlife Trust for more information.

Hedgerow Species Mix

Suitable hedgerow plants

Primary 70-75%

Crataegus monogyna	Hawthorn

Occasional 0-5%

Acer campestre	Field Maple
Prunus spinosa	Blackthorn

Suitable hedgerow trees

Primary 95-100%

Fraxinus excelsior	Ash
Quercus robur	Pedunculate Oak

Secondary 25-30%

Acer campestre	Field Maple
Tilia cordata	Small Leaved Lime

Occasional 0-5%*

Malus sylvestris	Crab Apple
Populus tremula	Aspen
Sorbus aucuparia	Rowan

* only to be used if occurring locally within the landscape character type

Trent Valley Washlands

LANDSCAPE TYPE: RIVERSIDE MEADOWS

Broad, flat flood plains, containing meandering rivers and streams with scattered trees along riverbanks. A pastoral landscape of large, hedged fields with trees scattered along boundaries.

Key Characteristics

- Flat flood plains containing meandering rivers and streams
- Seasonally waterlogged soils over alluvium
- Intensive permanent pasture
- Localised patches of rushes in damp hollows
- Dense watercourse trees, mainly alder with some localised willow
- Scattered trees along hedgerows and ditches
- Regular shaped fields bounded by hawthorn hedges
- Lanes alongside or crossing the flood plain
- Generally uninhabited with sparsely scattered, isolated farmsteads

Geology and Landform

The underlying geology of these flat flood plains consists of alluvial mud lying over gravels, deposited by the rivers in times of flood. The gravel acts as an aquifer carrying water from the adjoining land into the rivers and so is permanently waterlogged. In places there are natural raised banks to the rivers known as levees. These are formed as a result of the deposition of sediment by waning floodwaters.

The flood plain broadens out in these lower reaches of the Rivers Dove, Derwent and Trent.

Soils and Land-Use

The soils are seasonally waterlogged, clayey loams. Some areas are more permanently waterlogged and some hollows retain floodwater long after the majority of floods have subsided. The predominant land-use is pasture.

The flood plain makes good quality, fattening pastures. The wet, fine textured soils and risk of flooding make the land difficult to work for arable cropping, although some arable fields can be found in the valley as a result of recent drainage improvements and flood protection measures.

Ecology

The lower River Dove, Derwent and Trent are important fresh water habitats. The open water provides important wildlife habitats, as do their banks and margins. Important ecological sites include the Old River Dove SSSI at Marston-on-Dove and Lockington Marshes SSSI.

Localised patches of unimproved pasture occur along the Dove, Derwent and Trent. Pastures with a high water table, where the soil is permanently wet, are important ecologically for their species-rich flora, ground beetles and birds, such as curlew and snipe. However, these habitats are becoming increasingly rare, as former pastures have often been converted to arable following drainage improvements.

Gravel extraction is providing opportunities for increasing wetland habitats but there are constraints due to the proximity to East Midlands Airport, flood flows

and availability of suitable fill. Gravel extraction, combined with improved drainage and conversion to arable, is leading to a significant loss of meadowlands.

Tree Cover

There are scattered lines of trees along riverbanks, mainly alder with occasional willows. Many trees have been removed from the riverbanks as part of flood protection works and there is die-back in other places. There are also mature trees, chiefly oak, ash and willow, scattered along fields boundaries. Pollarded willows form distinct localised features in the landscape. Scattered trees in association with the flat topography filter views through the landscape.

Enclosure

The enclosure pattern is a key feature defining the scale of this landscape type. Fields are medium to large in size, being sub-regular or regular in shape. They are enclosed by hedgerows, predominantly hawthorn, which tend to be tall, limiting or filtering views through the landscape. Many of these hedges are becoming gappy due to poor management. Some fields have patches of ridge and furrow indicative of earlier medieval field systems.

Pastoral fields with areas of ridge and furrow

Transport

By virtue of its generally uninhabited nature, there are few lanes crossing this landscape. Where lanes occur, they are narrow with irregular verges, often direct, tending to cross the flood plain or run along its edge where the risk of flooding is lessened.

The A514 crosses the broad valley of the Trent on the medieval sandstone Swarkestone Causeway, a scheduled ancient monument and one of the largest such structures in the country.

The Trent and Mersey Canal crosses the Dove on a viaduct north of Burton-on-Trent, leaving the Riverside Meadows for the Lowland Village Farmland. It follows the edge of the flood plain along the northern side of the Trent, from Swarkestone to Trent Lock. Once an important transport route for early industry, its use dramatically declined with the advent of the railways. It now carries predominantly leisure craft.

Trent and Mersey Canal at Great Wilne

Built Environment

Historically, there was little built development on the flood plain, except for the occasional water mill for grinding corn. There are occasional red brick farmsteads on the higher, better drained parts of the flood plain.

The underlying mineral deposits have resulted in extensive gravel extraction in the lower Dove and Trent flood plains. The restoration of gravel pits is changing from agricultural after-uses, to open water, resulting from the lack of suitable fill material. In some sections of the Trent active gravel extraction and open water strongly influences the landscape character.

Large power stations dominate some views and the A52, A50, A38 and M1 also visually intrude into this landscape.

Summary

This is a distinct landscape associated with the lower reaches of the rivers Dove, Derwent and Trent. Broad, flat flood plains, with underlying alluvial deposits, have strongly influenced the cultural patterns that are evident today. A flood plain is often clearly defined by rising land on either side but, in the Trent Valley, the landscape appears much broader because of gently rising valley sides.

The alluvium gives rise to clayey, seasonally waterlogged soils. This is a landscape traditionally associated with pasture. Historically, much of it would have remained unenclosed, as extensive fattening pastures for summer grazing. Pockets of free-draining soil over areas of gravel or on slightly higher land would historically have been cultivated for crops and this is evidenced by the presence of localised ridge and furrow.

Pasture is still the prevailing land-use although, with improvements to drainage, there is an increasing move towards arable farming. Fields are medium to large in size and assist in defining the scale of the landscape. In areas of earlier piecemeal enclosure fields are sub-regular in shape. However, the majority of fields display a regular outline, typical of fields enclosed as part of the Parliamentary Enclosure Acts. The majority of these fields have single species hawthorn hedgerows.

Tree cover is not a prominent feature although, there are areas where trees are locally frequent and views through the landscape become filtered. Scattered trees, predominantly alder, fringe many of the rivers together with some willow. There are sparsely scattered hedgerow trees which tend to be oak and ash with some willow. Where willows are still pollarded, they are a distinctive local feature. Long distance views tend to be restricted by the surrounding landform.

Historically, this is an uninhabited landscape, due to the risk of flooding, and there are very few traditional buildings other than water mills. Roads and lanes are generally few in number and, where they occur, they tend to be straight and direct, either crossing the flood plain or running along the edge. The historic sandstone bridge and causeway at Swarkestone is a prominent local feature.

Recent impacts mostly relate to the extraction of sand and gravel, which often leaves large holes filled with water. There are impacts beyond this landscape type, mostly associated with modern roads, power stations and urban expansion.

Planting and Management Guidelines

A broad, open flood plain with scattered hedgerow and dense watercourse trees.

Primary woodland character:	Unwooded
Primary tree character:	Thinly scattered hedgerow trees and dense watercourse trees
Woodland vision:	Occasional wet woodlands
Tree vision:	Thinly scattered hedgerow trees and dense watercourse trees

Typical woodland size range:	0.5 - 15ha	small
Woodland pattern:	Organic/ linear	

- Ensure the use of indigenous tree and shrub species, including a proportion of large, long-lived species.
- Ensure a balance is maintained between new woodland planting and areas of nature conservation value.
- Enhance the visual and ecological continuity of river corridors by management, natural regeneration and planting of riparian trees.
- Encourage the continuing practice of pollarding to maintain the traditional riparian character of the landscape.

Note
This guidance may be subject to variation following the emergence of the Trent Valley Vision and Strategy.

Woodland Species Mix

Waterlogged Conditions on all soil types

Primary Tree Species 50%

† *Alnus glutinosa*	Alder
† *Salix fragilis*	Crack Willow

Secondary Tree Species 20%

Major

Betula pubescens	Downy Birch
Fraxinus excelsior	Ash

Minor

* *Populus nigra ssp. betulifolia*	Black Poplar
Quercus robur	Pedunculate Oak
Salix caprea	Goat Willow

Shrubs 10-30%

Major

Salix cinerea	Grey Willow
Sambucus nigra	Elder

Minor

Crataegus monogyna	Hawthorn
Frangula alnus	Alder Buckthorn
Rhamnus cathartica	Purging Buckthorn
Salix viminalis	Osier
Viburnum opulus	Guelder Rose

Open space 0-20%

† **Watercourse Trees** - tree species most appropriate for planting as watercourse trees.

* Plant only **native** Black Poplar (sub species betulifolia). Contact Derbyshire Wildlife Trust for more information.

Hedgerow Species Mix

Suitable hedgerow plants

Primary 85-90%

Crataegus monogyna	Hawthorn

Secondary 10-15%

Acer campestre	Field Maple
Corylus avellana	Hazel
Prunus spinosa	Blackthorn

Occasional 0-5%

Rhamnus cathartica	Purging Buckthorn

Suitable hedgerow trees

Primary 95-100%

Fraxinus excelsior	Ash
Quercus robur	Pedunculate Oak
Salix fragilis	Crack Willow

Secondary 25-30%

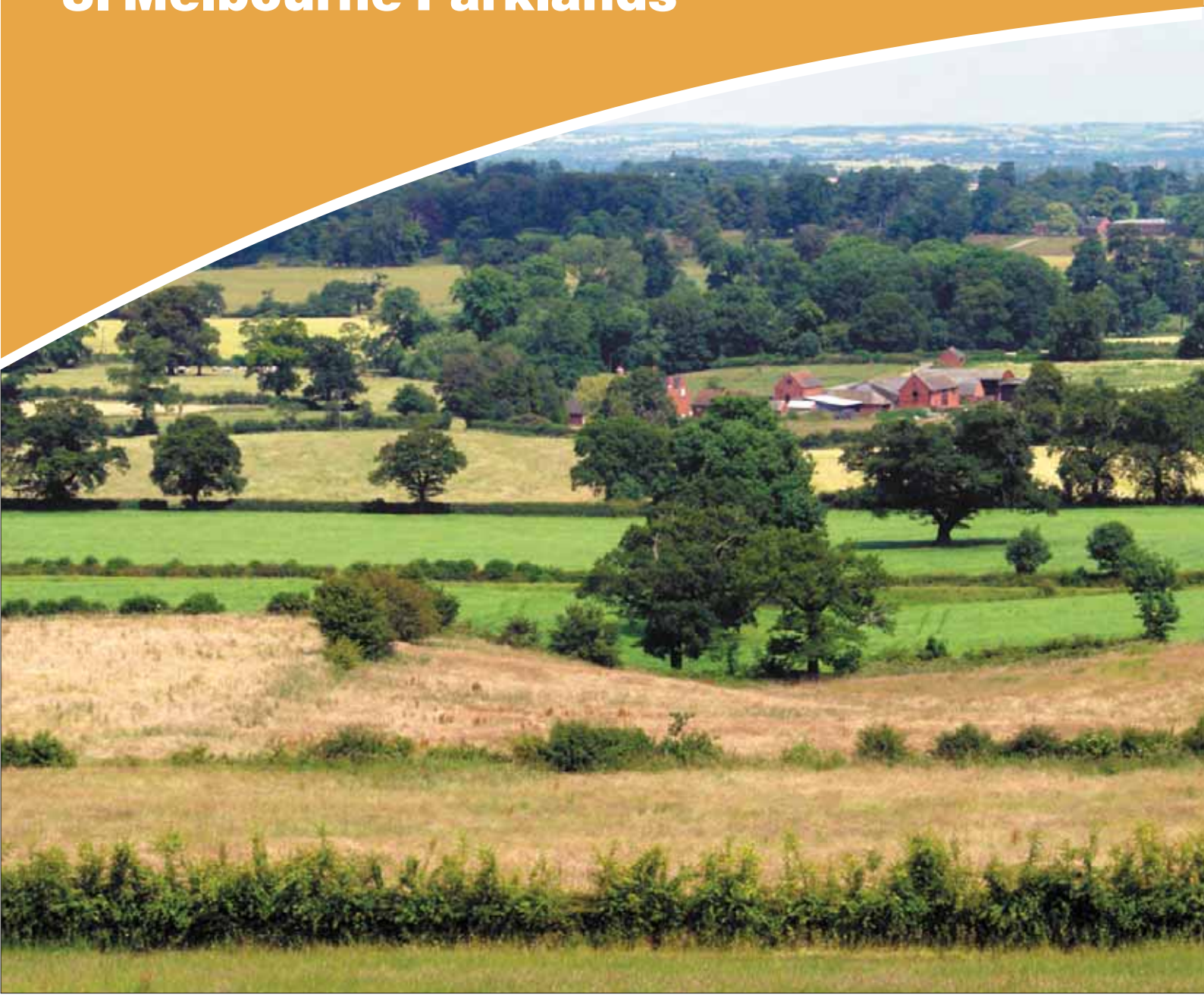
Acer campestre	Field Maple
Tilia cordata	Small Leaved Lime

Occasional 0-5%*

Malus sylvestris	Crab Apple
Populus tremula	Aspen
Sorbus aucuparia	Rowan

* only to be used if occurring locally within the landscape character type

8. Melbourne Parklands



Landscape Character Types

- Estate Farmlands 8.4
- Wooded Estatelands 8.9
- Sandstone Slopes and Heaths ... 8.13
- Riverside Meadows 8.18

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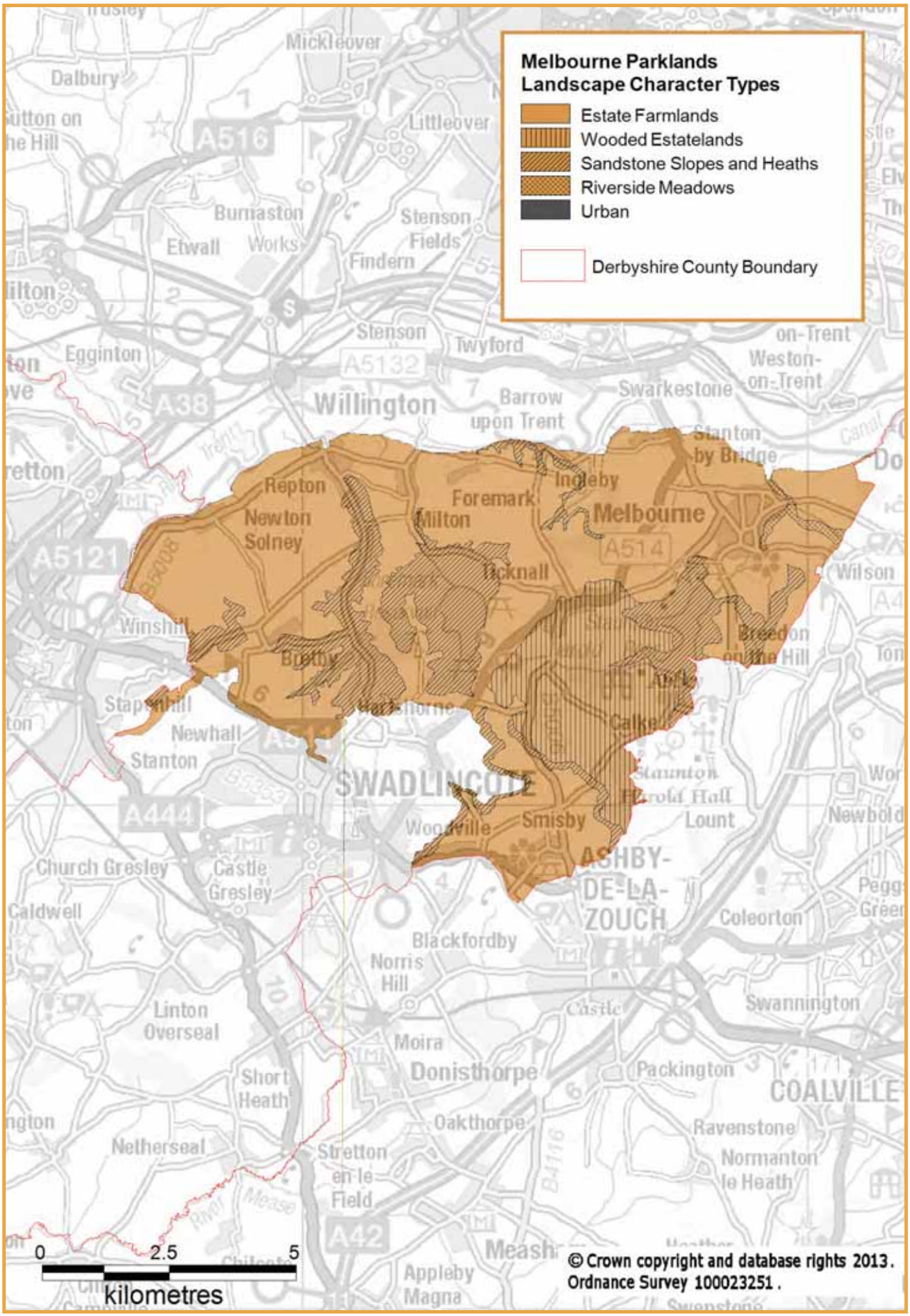
Melbourne Parklands
Landscape Character Types
Estate Farmlands
Wooded Estatelands
Sandstone Slopes and Heaths
Riverside Meadows
Urban
Derbyshire County Boundary
Mickleover
Dalbury
Littleover
A516
Burnaston
Works
Etwall
Stenson
Fields
Findern
Stenson
Twyford
Egginton
A5132
A38
Willington
Barrow
upon Trent
Swarkestone
Weston-
on-Trent
Stanton
by Bridge
Repton
Newton
Solney
Foremark
Milton
Ticknall
Melbourne
A514
Wilson
A5121
Winshill
Breedon
on the Hill
Stapenhill
Newhall
Stanton
SWADLINCOTE
A444
Smisby
Lount
Church Gresley
Castle
Gresley
Caldwell
ASHBY-
DE-LA-
ZOUCH
Coleorton
Blackfordby
Norris
Hill
Swannington
Linton
Overseal
Moira
Donisthorpe
Packington
Short
Heath
COALVILLE
Oakthorpe
Ravenstone
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Normanton
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Ordnance Survey 100023251.

Melbourne Parklands

CHARACTER AREA 70

An undulating, mixed farming landscape with country houses, landscaped parks and estate plantations

Landscape Character Types

- Estate Farmlands
- Wooded Estatelands
- Sandstone Slopes and Heaths
- Riverside Meadows

"Towards the south and the west, the view is that of well cultivated fertile uplands and dales, diversified with stately timber and country seats... towards the east the domain of Foremark and the woods around Ingleby close the prospect."

p294-295 Hicklin; Wallis 'Bemrose's Guide to Derbyshire'

Introduction

The Melbourne Parklands Character Area is an undulating landscape that extends through South Derbyshire from the Staffordshire border in the west into Leicestershire to the east. The Trent Valley forms the northern and western boundary to the area as it sweeps round in a broad arc from Burton-on-Trent to its confluence with the River Soar in Leicestershire. To the south of the area is the South Derbyshire Coalfield incorporating the town of Swadlincote.

A complex geology has resulted in an undulating landscape with many valleys, two of which have been dammed to create reservoirs at Foremark and Staunton Harold. Relative to the Trent Valley the area is elevated with commanding views north and west to landscapes beyond.

The majority of the area is lightly populated although settlement is more substantial along the edge of the Trent Valley with Repton and Melbourne being important historic settlements.

There are extensive areas of arable farming set within a regular pattern of fields with low hedges and few hedgerow trees. Woodlands occur on steeper slopes, usually along valley sides, but are particularly evident in association with historic parklands such as Calke, Melbourne and Staunton Harold.

Physical Influences

The area is dominated by Triassic Mercia Mudstones but there are outcrops of Milstone Grit around Melbourne and Sherwood Sandstones extend towards the River Trent. Differential erosion by rivers of this complex geology has created an undulating landform with narrow valleys defining *Sandstone Slopes and Heaths* and the upstanding plateaux of the *Estate Farmlands*. The soils are predominantly fertile reddish clays with some free-draining sandy soils over sandstone.

Natural Influences

Most of the land is in agricultural use and, as a result, contains very few semi-natural habitats. On the plateau within the *Estate Farmlands* there are extensive areas of intensive arable farming with low hedgerows and few trees. Where the land is steeper, or the soils heavier, the land is less intensively farmed with a mix of arable and pasture. Here the hedgerows are more substantial, hedgerow trees are more frequent and there is some permanent pasture.

The main ecological value of the area comes from its many woodlands, particularly associated with the *Wooded Estatelands*. There are woodlands and many mature specimen trees set in parkland. Some parks were formerly more extensive and parkland trees, often in poor condition, can be seen within farmland.

The underlying geology and free-draining soils of the *Sandstone Slopes and Heaths* provide localised heathy conditions, evidenced by scrubby gorse along steep slopes and road verges.

Human Influences

There is scattered evidence of Mesolithic, Neolithic and Bronze Age occupation of the area, although this appears to relate to activity spreading out from the Trent and Tame Valleys. The first substantial evidence of human occupation comes from the Anglo-Saxon period. Repton was an important ecclesiastic centre for the kingdom of Mercia. The many place names ending in 'ton' (Anglo Saxon term for settlement), the lack of woodland names and the references to heath indicate that the area has a long history of settlement from an early date.

By the time of the Domesday Book, the area was still widely, if rather sparsely, settled with Melbourne becoming an important post-conquest market and manorial town. Monasteries, set within extensive parks, were established at Calke and Repton. The dissolution of the monasteries in the 16th century, and the developing land market, led to the formation of large estates and ultimately, the construction of large country houses and landscaped parks that are so much a feature of the Melbourne Parklands, most evident within the *Wooded Estatelands*. Calke Abbey is a fine example of a country house set in parkland, at the gates of which stand the largely unaltered estate villages of Ticknall and Calke.

Most of the land remained unenclosed in open fields until the 18th and 19th centuries when the rectilinear pattern of fields, that is still seen today, was created. During this time of enclosure, many of the farms that survive were built. Industrial development largely passed the area by. The main impacts have occurred within the *Estate Farmlands* through agricultural intensification, leading to the removal and over-management of hedgerows and the subsequent loss of hedgerow trees.

The traditional building materials that define the Melbourne Parklands are a mellow red brick and blue or red clay roof tiles, although some local sandstones have been used for building, particularly at Repton and Melbourne.

A large part of the Character Area lies within the National Forest and is being subject to large scale woodland planting allied to other landscape and nature conservation improvements.

Other Considerations

- The National Forest Strategy and BAP
- The Lowland Derbyshire BAP

Melbourne Parklands

LANDSCAPE TYPE: ESTATE FARMLANDS

A broad, gently rolling lowland mixed farming landscape with occasional red brick villages, scattered estate farmsteads and country houses. Tree cover is well represented with small estate woodlands, dense watercourse trees, scattered hedgerow trees and localised parkland trees.

Key Characteristics

- Gently rolling plateau dissected by minor river valleys
- Seasonally waterlogged fine loamy soils over Permo-Triassic Mudstones, Siltstones and Sandstones
- Mixed farming with intensive arable copping and improved permanent pasture
- Estate woodlands with broadleaf and coniferous species
- Scattered hedgerow trees
- Dense watercourse trees
- Predominantly medium size semi-regular and regular fields enclosed by hedgerows
- Settlements constructed of red brick with clay tiled roofs
- Scattered red brick estate farmsteads and the occasional country house
- Open views from elevated areas over surrounding lower lying landscapes

Geology and Landform

The underlying geology comprises of alternative bands of Permo-Triassic Mudstones, Siltstones and Sandstones, and occasionally harder Carboniferous Sandstone. The differential weathering and erosion of the bedrock has given rise to a gently rolling to undulating topography, where the harder sandstone forms the shallow ridges and hills. Where the sandstone defines a broader ridge or upstanding plateau, there is a distinct sense of elevation.

Soils and Land-Use

Over mudstone and siltstone, the soils are deep, fine loams with some slight local variation based on the precise nature of the bedrock. The subsoils are slowly permeable, so these soils are prone to some seasonal waterlogging, although usually only short-lived. Over Permo-Triassic and Carboniferous Sandstone, the soils tend to be reddish, coarser loams, often deep and permeable.

Landform and soils collectively form land of above average quality for agriculture and, as a result, the land-use is mixed farming with intensive arable cropping and improved permanent pasture. Pasture is most prevalent on the slightly heavier soils over mudstone and on the locally steeper slopes. The plateau areas are predominantly arable due to the gentle relief and the well-drained, easily cultivated soils.

Ecology

Ecologically, this landscape type is poor as a result of intensive farming practices. The arable crops and improved permanent pastures and leys are of little ecological value. Remnant unimproved grassland is now confined to the road margins and the occasional field margin in pastoral areas.

Terrestrial corridors are strong with many hedgerows and lines of trees along watercourses. The value of some hedgerows has been much reduced by poor management, with many over-flailed and becoming gappy.

Numerous small woodland blocks interlink to form a more complex network of habitats that supplement the terrestrial corridors. The value of some is diminished by virtue of their more ornamental nature and composition of coniferous and non-native species.

Wet pasture and patches of marsh with rushes are a feature of some of the minor stream valleys.

The free-draining sandy soils over sandstone inherently support lowland heath and bracken. This is occasionally observed in road verges, hedgerows and woodland margins.

Tree Cover

Trees, and especially woodland, are well represented throughout, though there is some local variation. Collectively, the trees and woodlands play an important role in emphasising estate character. Scattered, mature boundary trees, usually a mix of oak and ash, are found along most hedgerows. The wooded character is reinforced by dense lines of trees along watercourses, typically alder and willow, but also the occasional oak or ash. In and around the small villages, amenity trees are prominent, as are the parkland trees in places.

Woodlands tend to occur as small estate plantations, tree belts and small coverts formerly managed by estates for game rearing. As a result, much of the estate woodland has regular shaped outlines and mixed species composition.

The woodlands are less frequent on the ridges and plateaux where the gentler relief and easily worked soils ensure that arable cropping prevails.

Mixed woodland and specimen trees

Together, the trees combine to restrict or filter views through the landscape. Where hedgerow trees are less obvious, woodland blocks may assist in framing longer views to landscapes beyond. The relative lack of trees on the plateaux means that there are open views across surrounding landscapes.

Enclosure

There is much variation in the field patterns reflecting the diverse history of enclosure. Within the lower lying valleys the fields are mainly small to medium size and irregular in shape, representing some of the areas of earliest enclosure. Around the villages the fields tend to be smaller and semi-regular in shape, reflecting the enclosure of land from former open fields. Where these boundaries remain in good condition, the reverse 'S' of former selion strips can still be seen. In these areas of earlier enclosure, many of the hedgerows contain a good variety of species including holly, hazel, blackthorn and hawthorn. Intensification of arable farming in recent years has led to the loss of field boundaries with many small fields amalgamated into larger units.

In plateau areas, the fields are generally medium to large in size, often regular and geometric in shape, reflecting a period of later field enclosure. These areas would have been enclosed by parliamentary award and, as a result, have less diverse hedgerows with hawthorn being the main species.

Today the estate influence is still evident with many of the hedgerows managed very formally, regularly flail-cut into a box or trapezoid outline.

Transport

There is a dense network of winding lanes that reflect the outline of the semi-regular fields or follow the easier gradients. These lanes, with irregular width verges, connect small villages and scattered estate farmsteads. In areas of later enclosure the roads tend to be straight and direct with uniform width verges.

There are also numerous footpaths and unsurfaced green lanes which connect the settlements. Many of these are historic routeways and are often bound by hedgerows with a diverse species composition.

Built Environment

This relatively sparsely populated landscape has a number of country houses set in landscaped parks. The principal settlements of Repton and Melbourne have an impressive number of historic buildings, built predominantly of buff sandstone and brick with red clay roof tiles.

Between villages there are sparsely scattered estate farmsteads, which tend to be large and built in the vernacular materials of red brick with Staffordshire blue clay tile roofs.

Red brick dwelling with Staffordshire blue clay tile roofs

Summary

The landform and topography is shaped by the underlying sequence of Permo-Triassic Mudstones, Siltstones and Sandstones. The differential weathering of this geology gives rise to a gently rolling landscape, locally undulating where the sandstone is most prevalent. Where harder sandstone rises out of this lowland landscape, it creates a series of gently rolling plateaux. Although there is some local variation in soils, relating to the variations in both geology and landform, they tend to be free-draining, fine loams that are prone to short-lived seasonal waterlogging.

The character of the landscape is strongly influenced by its cultural associations with large estates, and the settlements of Repton and Melbourne. The historic origins of Repton (Anglo-Saxon) and Melbourne (Norman) remain evident and these well preserved settlements make a significant contribution to the area's particular character.

Woodland is a dominant feature affecting the character of the landscape, influencing the views through it and from it to adjacent landscapes. Estate influences are clearly evident with many of the woodlands being mixed species plantations managed as game coverts or for commercial timber. Woodlands are generally small in size and have regular outlines. The wooded character of this landscape is further emphasised by dense lines of watercourse trees and scattered hedgerow trees.

This is a medium scale landscape defined by field pattern and tree cover. Fields display a variety of patterns reflecting the diverse nature of enclosure; however, today these patterns have been impacted upon by the intensification of agriculture. Many of the hedgerows are well managed, but some are being over managed by flail cutting.

Planting and Management Guidelines

Gently rolling, lowland, mixed farming landscape with scattered small estate plantations, scattered hedgerow trees and dense watercourse trees.
Part of this landscape character type lies within the National Forest.

Primary woodland character:	Thinly scattered small plantations
Primary tree character:	Thinly scattered hedgerow trees, dense watercourse trees and localised amenity tree groups
Woodland vision:	Thinly scattered small plantations Note: 40% of this area is within the National Forest Where appropriate refer to the National Forest Strategy and Guidance
Tree vision:	Thinly scattered hedgerow trees, dense watercourse trees and localised amenity tree groups

Typical woodland size range:	0.5 - 10ha	small
Woodland Pattern:	Regular plantations	

- Small scale woodland planting.
- Promote linked extensions to ancient woodland by natural regeneration and planting.
- Re-establish and enhance physical links between existing isolated woodland and hedgerows.
- Conserve and renew ornamental plantations and individual parkland trees.
- National Forest Guidelines apply for the area within the National Forest.

Note
With the National Forest there has been large scale afforestation of the landscape to create extensive woodland. Today this provides value as a recreational resource for activities such as walking, cycling and nature conservation.

Woodland Species Mix

Neutral/Slightly Acidic Soils

Primary Tree Species 50%

‡ *Fraxinus excelsior*	Ash
‡ *Quercus robur*	Pedunculate Oak

Secondary Tree Species 20%

Major

Acer campestre	Field Maple
Ilex aquifolium	Holly

Minor

Malus sylvestris	Crab Apple
Populus tremula	Aspen
Sorbus aucuparia	Rowan
Tilia cordata	Small Leaved Lime

Shrubs 10-30%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn

Minor

Prunus spinosa	Blackthorn
Rhamnus cathartica	Purging Buckthorn
Salix cinerea	Grey Willow

Open space 0-20%

Waterlogged Conditions on all soil types

Primary Tree Species 50%

† *Alnus glutinosa*	Alder
† *Salix fragilis*	Crack Willow

Secondary Tree Species 20%

Major

Betula pubescens	Downy Birch
Fraxinus excelsior	Ash

Minor

* *Populus nigra ssp betulifolia*	Black Poplar
Quercus robur	Pedunculate Oak
Salix caprea	Goat Willow

Shrubs 10-30%

Major

Salix cinerea	Grey Willow
Sambucus nigra	Elder

Minor

Crataegus monogyna	Hawthorn
Frangula alnus	Alder Buckthorn
Rhamnus cathartica	Purging Buckthorn
Salix viminalis	Osier
Viburnum opulus	Guelder Rose

Open space 0-20%

† **Watercourse Trees** - tree species most appropriate for planting as watercourse trees.

‡ **Amenity Trees** - tree species most appropriate for planting as amenity trees associate with settlement, or other locally occurring large woodland species.

* Plant only **native** Black Poplar (sub species betulifolia). Contact Derbyshire Wildlife Trust for information.

Hedgerow Species Mix

Suitable hedgerow plants

Primary 70-75%

Crataegus monogyna	Hawthorn

Secondary 25-30%

Acer campestre	Field Maple
Corylus avellana	Hazel
Ilex aquifolium	Holly
Prunus spinosa	Blackthorn

Occasional 0-5%

Rhamnus cathartica	Purging Buckthorn

Suitable hedgerow trees

Primary 70-75%

Fraxinus excelsior	Ash
Quercus robur	Pedunculate Oak

Secondary 25-30%

Acer campestre	Field Maple
Tilia cordata	Small Leaved Lime

Occasional 0-5%*

Malus sylvestris	Crab Apple
Populus tremula	Aspen
Sorbus aucuparia	Rowan

* only to be used if occurring locally within the landscape character type

Melbourne Parklands

LANDSCAPE TYPE: WOODED ESTATELANDS

A well-wooded, gently undulating, estate landscape with large, estate farms and occasional country houses.

Key Characteristics

- Underlying geology of sandstone, mudstone and Coal Measures giving rise to a large scale, gently undulating landform
- Mixed farming with occasional areas of improved pasture
- Medium size interlocking plantation woodlands of mixed species composition
- Densely scattered hedgerow trees and dense lines of watercourse trees
- Extensive parkland trees including ornamental specimens, tree groups and avenues
- Medium size regular shaped fields with hawthorn hedgerows
- Well-wooded landscape with views restricted by tree cover

Geology and Landform

The underlying geology of Carboniferous Coal Measures defines a broadly undulating landscape having an alternating sequence of sandstone, mudstone and coal seams. The differential erosion of this geology gives rise to a gently undulating to rolling landform where the more resistant sandstone forms minor ridges.

Soils and Land-Use

The soils are typical of those overlying Coal Measures, with slowly permeable soils over the Carboniferous Mudstones and Shales, with some well-drained soils over sandstones. The upper horizons of the soil over weathered sandstone is fine and loamy. Over mudstones and shales, the soils are slowly permeable and prone to seasonal waterlogging.

The predominant land-use is mixed farming although there are extensive areas of parkland. The parkland remains essentially pastoral in character and where the soils are heaviest or the slopes locally steep, pasture predominates. Much of the pasture has been improved and where the soils are free-draining there is some cropping.

Ecology

The ecology of this landscape type is variable, mostly relating to the intensity of land-use. Where pasture prevails, particularly within the parkland, there are large areas of unimproved pasture. Typically, remnant acid grassland is found over sandstone and neutral grassland in the more nutrient-rich valleys.

Trees and woodland are a key ecological resource. Numerous small to medium size plantations interlink to form a complex network of habitats, supplemented by connecting corridors formed by the hedgerows. The value of the woodlands is diminished by the presence of many non-native commercial species and the hedgerows are predominantly single species hawthorn. There are many trees scattered through the hedgerows, lines along watercourses and localised parkland trees. Many are veteran specimens. Where oak and ash are present, the ecological value is increased.

Tree Cover

This is a well-wooded landscape where tree cover is visually prominent. Mixed species woodlands interlock and there are densely scattered hedgerow trees that are mainly a mix of oak and ash. The wooded character is further enhanced by dense lines of trees along the watercourses, which are commonly a mix of willow and alder with the occasional ash. Many of the woodlands are estate plantations often having regular outlines, although there is still the occasional remnant ancient woodland with more irregular outlines.

Within the grounds of Calke Abbey and the immediate surroundings, there are numerous parkland trees, ancient reminders of former wood pasture. These are present as individual specimens, small ornamental tree groups or avenues. Together the trees and woodlands combine to restrict views through the landscape and limit views to landscapes beyond.

Enclosure

The enclosure pattern is one of medium to large size regular fields with hawthorn hedgerows. It is mainly the woodlands and trees which define the scale of the enclosure.

Transport

There are few lanes. Where they occur they are organic in character with irregular width verges and connect occasional small clusters of dwellings or scattered farmsteads and cottages.

Built Environment

This is inherently a sparsely settled landscape, due in part to its development as estateland. Ticknall is a settlement associated with the quarrying of a small outcropping of limestone but also had a post-medieval pottery industry. Traditional building materials are sandstone or red brick with Staffordshire blue clay tile roofs.

Between villages there are scattered farmsteads and cottages built of red brick with Staffordshire blue clay tile roofs. Many of these are estate farms and as such tend to be large.

At the centre of this landscape character type, and a major determinant of its overall character, is Calke Abbey and its landscaped park which contains ancient woodlands.

Calke Abbey

Summary

The underlying geology of Carboniferous Sandstones, Mudstones and Shales have varying resistances to erosion and define a broadly undulating landscape where sandstone forms the minor ridges. As a result, the soils are equally variable with slowly permeable, seasonally waterlogged soils over the mudstone and free-draining soils over sandstone.

The character of this landscape type is defined as much by its cultural associations as by its physiography, with Calke Abbey Park being at the heart of it.

The estate character is reinforced by numerous small to medium size plantation woodlands comprising a mix of broadleaf and coniferous tree species. A combination of densely scattered hedgerow trees, dense lines of trees along watercourses and locally prominent parkland and amenity trees results in a well-wooded landscape. Not only does this woodland restrict views through and from this landscape, it plays a key role in defining the scale and enclosure of the intervening spaces.

The land-use is that of mixed farming, with pasture prevalent in parkland, where the soils are heaviest or the slopes are locally steep. Where farming is less intensive, patches of unimproved grassland persists.

Settlement is sparsely scattered throughout, occurring as small settlements with some roadside cottages, or scattered estate farmsteads built in the vernacular materials of sandstone or red brick with Staffordshire blue clay tile roofs.

LANDSCAPE TYPE: WOODED ESTATELANDS

Planting and Management Guidelines

A well-wooded estate landscape of densely scattered small plantations with dense hedgerow and watercourse trees, and localised amenity tree groups including parkland trees. All of this landscape character type lies within the National Forest.

Primary woodland character:	Densely scattered small woodlands
Primary tree character:	Densely scattered hedgerow and dense watercourse trees with localised amenity tree groups
Woodland vision:	Refer to the National Forest Strategy and Guidance
Tree vision:	Densely scattered hedgerow and dense watercourse trees with localised amenity tree groups
Typical woodland size range:	Refer to the National Forest Strategy and Guidance
Woodland pattern:	Refer to the National Forest Strategy and Guidance

- Conserve and restore all ancient woodland sites and restock with locally occurring native species.
- Promote linked extensions to ancient woodland by natural regeneration and planting.
- Ensure the use of indigenous tree and shrub species, including a proportion of large, long-lived species.
- Re-establish and enhance physical links between existing isolated woodland and hedgerows.
- Ensure the management and enhancement of hedgerow trees, through selection and natural regeneration, or by planting.
- Enhance the visual and ecological continuity of river corridors by management, natural regeneration and planting of riparian trees.
- Conserve and renew ornamental plantations and individual parkland trees.
- Ensure the conservation and management of mature/veteran trees within hedgerows.
- Refer to the National Forest Strategy and Guidance.

Note
With the National Forest there has been large scale afforestation of the landscape to create extensive woodland. Today this provides value as a recreational resource for activities such as walking, cycling and nature conservation.

Woodland Species Mix

Neutral/Slightly Acidic Soils

Primary Tree Species 50%

‡ *Fraxinus excelsior*	Ash
‡ *Quercus robur*	Pedunculate Oak

Secondary Tree Species 20%

Major

Acer campestre	Field Maple
Ilex aquifolium	Holly

Minor

Malus sylvestris	Crab Apple
Populus tremula	Aspen
Sorbus aucuparia	Rowan
Tilia cordata	Small Leaved Lime

Shrubs 10-30%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn

Minor

Prunus spinosa	Blackthorn
Rhamnus cathartica	Purging Buckthorn
Salix cinerea	Grey Willow

Open space 0-20%

Waterlogged Conditions on all soil types

Primary Tree Species 50%

† *Alnus glutinosa*	Alder
† *Salix fragilis*	Crack Willow

Secondary Tree Species 20%

Major

Betula pubescens	Downy Birch
Fraxinus excelsior	Ash

Minor

* *Populus nigra ssp betulifolia*	Black Poplar
Quercus robur	Pedunculate Oak
Salix caprea	Goat Willow

Shrubs 10-30%

Major

Salix cinerea	Grey Willow
Sambucus nigra	Elder

Minor

Crataegus monogyna	Hawthorn
Frangula alnus	Alder Buckthorn
Rhamnus cathartica	Purging Buckthorn
Salix viminalis	Osier
Viburnum opulus	Guelder Rose

Open space 0-20%

† **Watercourse Trees** - tree species most appropriate for planting as watercourse trees.

‡ **Amenity Trees** - tree species most appropriate for planting as amenity trees associate with settlement, or other locally occurring large woodland species.

* Plant only **native** Black Poplar (sub species betulifolia). Contact Derbyshire Wildlife Trust for information.

Hedgerow Species Mix

Suitable hedgerow plants

Primary 80-90%

Crataegus monogyna	Hawthorn

Secondary 10-20%

Acer campestre	Field Maple
Corylus avellana	Hazel
Ilex aquifolium	Holly
Prunus spinosa	Blackthorn

Occasional 0-5%

Rhamnus cathartica	Purging Buckthorn

Suitable hedgerow trees

Primary 70-75%

Fraxinus excelsior	Ash
Quercus robur	Pedunculate Oak

Secondary 25-30%

Acer campestre	Field Maple
Tilia cordata	Small Leaved Lime

Occasional 0-5%*

Malus sylvestris	Crab Apple
Populus tremula	Aspen
Sorbus aucuparia	Rowan

* only to be used if occurring locally within the landscape character type

Melbourne Parklands

LANDSCAPE TYPE: SANDSTONE SLOPES AND HEATHS

A wooded, pastoral landscape on moderate to steep slopes with prominent rounded undulations and hillocks.

Key Characteristics

- Prominent landform of moderate to steep sandstone slopes and valleys with rounded undulations
- Well-drained sandy soils
- A pastoral land-use with mixed farming on gentler gradients
- Heathy associations on steeper slopes and along some hedgerows
- Prominent woodland with small linear woods, scattered hedgerow trees, scrub and occasional parkland trees
- Medium to large size regular and sub-regular fields with mixed species hedgerows
- Sparsely settled landscape with very occasional red brick and clay tile farmsteads and estate cottages

Geology and Landform

This is a landscape associated with moderate to steeply sloping valleys created by an underlying geology of Permo-Triassic Sandstone. Differential erosion along west-facing slopes has created a series of visually prominent rounded undulations and hillocks.

Soils and Land-Use

The sandstone bedrock gives rise to a reddish, coarse, sandy loam of variable depth depending upon the steepness of slope. These soils are well-drained and, where managed, readily absorb winter rainfall even on the steepest slopes.

The light sandy soils are easily worked and lend themselves to arable cropping. However, where the slopes are moderately steep permanent grassland prevails, whilst the very steepest slopes are wooded. Water retention is poor and areas under arable production need regular irrigation during the summer months.

Topsoils can dry out very quickly and in cropping areas can be prone to wind erosion. In addition, cultivated steep slopes are especially susceptible to water erosion.

Ecology

These free-draining sandy soils naturally support acid grassland and heathy habitats. In areas of unimproved pasture, on the steepest slopes, patches of acid grassland still persist. Where this grassland has become neglected, gorse is beginning to colonise and there are sizable patches of gorse thicket. In other areas of neglected pasture and grassland, some localised scrub has developed, which adds to the general wooded character of this landscape.

A key habitat type is woodland, which is also a visually prominent feature. On the steeper upper slopes, where land is less cultivable, woodland prevails, tending to be linear, following the natural contours of the sandstone slopes and valleys. Ecological value is diminished slightly by the mixed species composition, often including many non-native species. Coniferous species are also planted, particularly Scots Pine, which thrives in these free-draining soils.

Ecological corridors are variable, depending to some extent upon enclosure patterns and land-use. In areas of smaller, irregular fields, the hedgerows tend to be mixed species with holly, hazel and blackthorn. In areas of mixed farming and larger fields, the hedgerow network is more fragmented and is beginning to lose its ecological function.

Large mature hedgerow trees and the occasional parkland tree add to the ecological diversity particularly when oak is dominant.

Tree Cover

Tree cover is a prominent feature within this landscape and some areas have the sense of being well-wooded. Small woodland blocks tend to hug the upper, steeper slopes and are often linear in shape, following the natural contours of slopes and valleys. These wooded slopes are further supplemented by scrub colonisation in areas of neglected pasture.

There are scattered boundary trees along hedgerows, sparsely scattered in areas of mixed farming, that tend to be a mix of oak and ash. Where the occasional stream dissects the slope, there is a continuous line of trees, usually willow and alder but also, infrequently, ash. In some areas, particularly around Repton and Foremark, there are remnant features of former deer parks, such as the park pale with ditch and bund demarcating former boundaries.

Views through the landscape and along the slopes are often blocked or filtered, mainly by trees and woodlands but also by the rounded undulations of the landform. However, views out across adjacent landscape types can be extensive and sometimes enhanced by the woodland frame.

Enclosure

The enclosure pattern is generally on a medium to large scale although there is some variation in field shape throughout this landscape type. Predominantly, fields tend to be medium to large size and regular in outline, being more visually prominent in areas of mixed farming. On steeper slopes, where traditionally woodland is more prevalent, fields may be smaller in size and more irregular in shape.

Where the enclosure pattern is on a smaller scale, hedgerows have a more diverse composition of species like holly, hazel, elder, blackthorn and hawthorn. The more regular fields are predominantly hawthorn with some elder. Small woodlands and hedgerow trees assist in defining more open areas.

Transport

Lanes through this landscape are infrequent and often restricted to a single route running through valley bottoms or on gentler slopes. When the occasional lane runs uphill, it is invariably winding with irregular width verges and often sunken.

Built Environment

Traditionally settlement is sparse, primarily due to the predominance of steep, uncultivable slopes. Some isolated slopes are totally uninhabited whilst others are only sparsely settled with an occasional farmstead and cottage. The traditional building materials are sandstone or red brick with Staffordshire blue clay tile roofs.

Today this sparsely scattered character is still obvious but development pressures are beginning to increase to the south of Repton and on the slopes to the east of Burton-on-Trent. Other impacts are few with the exception of Foremark Reservoir, which covers a sizeable area of one of these sandstone valleys.

Summary

The underlying geology of Permo-Triassic Sandstone strongly influences both the physical and cultural characteristics of this landscape. The harder, more resistant sandstone weathers away slowly to form these steep slopes and valley sides, and differential erosion of the slopes themselves has created visually prominent rounded undulations and hillocks, most obvious on the west-facing slopes.

Being difficult to farm, many of these slopes are now well-wooded, either by natural colonisation or through the planting of mixed species plantations. The woodlands are small in size and linear, following the natural contours of these slopes and valley sides. Together with scattered hedgerow trees, occasional parkland trees and watercourse trees, the overall impression is that of a well-wooded landscape. Views through the landscape are often restricted by both vegetation and landform, although there are views out across lower lying landscapes, particularly where this landscape occurs as a discrete slope.

Land-use is variable, depending upon the steepness of the slopes. The predominant land-use is pasture with some mixed farming and arable on the gentler slopes. Where the pasture remains less intensive there are patches of acid grassland, and when the pasture has become more neglected, localised patches of gorse have developed. This heathy association, as a result of the free-draining soils, is further evidenced by the amount of bracken that can be seen in road verges, hedgerows and woodland margins.

As a result of the low agricultural potential of this landscape, primarily due to landform, there is very little settlement throughout this landscape type. Some of the more remote slopes are unsettled whilst others have sparsely scattered farmsteads and estate cottages, built in the local red brick with Staffordshire blue clay tile roofs.

Planting and Management Guidelines

Moderate to steeply sloping pastoral landscape with scattered linear plantations and hedgerow trees. Part of this landscape character type lies within the National Forest.

Primary woodland character:	Densely scattered small woodlands
Primary tree character:	Thinly scattered hedgerow and dense watercourse trees
Woodland vision:	Densely scattered small woodlands Note: Approximately 75% of this area is within the National Forest. Where appropriate refer to the National Forest Strategy and Guidance.
Tree vision:	Thinly scattered hedgerow and dense watercourse trees

Typical woodland size range:	0.5 - 10ha	small
Woodland pattern:	Organic/ linear	

- Ensure the use of indigenous tree and shrub species, including a proportion of large, long-lived species.
- Ensure a balance is maintained between new woodland planting and areas of nature conservation value.
- Enhance the visual and ecological continuity of river corridors by management, natural regeneration and planting of riparian trees.
- National Forest Strategy and Guidance applies for the area within the National Forest.

Note
With the National Forest there has been large scale afforestation of the landscape to create extensive woodland.

Woodland Species Mix

Neutral/Slightly Acidic Soils

Primary Tree Species 50%

Fraxinus excelsior	Ash
Quercus robur	Pedunculate Oak

Secondary Tree Species 20%

Major

Acer campestre	Field Maple
Ilex aquifolium	Holly

Minor

Malus sylvestris	Crab Apple
Populus tremula	Aspen
Sorbus aucuparia	Rowan
Tilia cordata	Small Leaved Lime

Shrubs 10-30%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn

Minor

Prunus spinosa	Blackthorn
Rhamnus cathartica	Purging Buckthorn
Salix cinerea	Grey Willow

Open space 0-20%

Waterlogged Conditions on all soil types

Primary Tree Species 50%

† *Alnus glutinosa*	Alder
† *Salix fragilis*	Crack Willow

Secondary Tree Species 20%

Major

Betula pubescens	Downy Birch
Fraxinus excelsior	Ash

Minor

* *Populus nigra ssp betulifolia*	Black Poplar
Quercus robur	Pedunculate Oak
Salix caprea	Goat Willow

Shrubs 10-30%

Major

Salix cinerea	Grey Willow
Sambucus nigra	Elder

Minor

Crataegus monogyna	Hawthorn
Frangula alnus	Alder Buckthorn
Rhamnus cathartica	Purging Buckthorn
Salix viminalis	Osier
Viburnum opulus	Guelder Rose

Open space 0-20%

† **Watercourse Trees** - tree species most appropriate for planting as watercourse trees.

* Plant only **native** Black Poplar (sub species betulifolia). Contact Derbyshire Wildlife Trust for information.

Hedgerow Species Mix

Suitable hedgerow plants

Primary 70-75%

Crataegus monogyna	Hawthorn

Secondary 25-30%

Acer campestre	Field Maple
Corylus avellana	Hazel
Ilex aquifolium	Holly
Prunus spinosa	Blackthorn

Occasional 0-5%

Rhamnus cathartica	Purging Buckthorn

Suitable hedgerow trees

Primary 70-75%

Fraxinus excelsior	Ash
Quercus robur	Pedunculate Oak

Secondary 25-30%

Acer campestre	Field Maple
Tilia cordata	Small Leaved Lime

Occasional 0-5%*

Malus sylvestris	Crab Apple
Populus tremula	Aspen
Sorbus aucuparia	Rowan

* only to be used if occurring locally within the landscape character type

Melbourne Parklands

LANDSCAPE TYPE: RIVERSIDE MEADOWS

Narrow, flat flood plains, containing meandering rivers and streams with dense trees along riverbanks. A mixed farming landscape of medium sized hedged fields.

Key Characteristics

- Flat flood plains containing meandering rivers and streams
- Seasonally waterlogged soils over alluvium
- Traditional pasture now reverted to intensive mixed farming
- Localised patches of rushes in damp hollows
- Dense watercourse trees
- Regular shaped fields bounded by hawthorn hedges
- Lanes alongside or crossing the flood plain

Geology and Landform

The underlying geology of these flat flood plains consists of alluvial mud lying over gravels deposited by the rivers in times of flood. The gravel acts as an aquifer carrying water from the adjoining land into the rivers and so is permanently waterlogged. In places there are natural raised banks to the rivers known as levees. These are formed by the deposition of sediment by waning floodwaters. The flood plains of the Ramsley Brook and Carr Brook are fairly narrow but broaden slightly at the confluence with the Trent Valley.

Soils and Land-Use

The soils are seasonally waterlogged clayey loams. Some areas are permanently waterlogged and some hollows retain floodwater long after the majority of floods have subsided. The predominant land-use is mixed farming with pasture still evident on the heaviest soils and lowest lying fields.

Intensification of farming in the surrounding landscapes has transgressed onto the flood plains and, with improved drainage, there is an increasing shift towards arable farming.

Ecology

The narrow Ramsley Brook flows with unpolluted water, making it very valuable as a freshwater habitat. All watercourses are important wildlife habitats, as are their banks and margins. Pasture with a high water table, where the soil is permanently wet, is important ecologically for species-rich meadows associated with ground beetles and birds, such as curlew and snipe. However, these habitats are becoming increasingly rare, as former pastures have often been converted to arable following drainage improvements. Some sections of Ramsley Brook have been canalised and as a consequence their biodiversity value has diminished.

Improved drainage, conversion to arable and localised culverting is leading to significant loss of meadowland.

Tree Cover

There are dense lines of trees along the riverbanks, mainly alder and willow. In most instances, it is the dense tree line that visually defines the watercourse rather than the stream itself.

Enclosure

Fields are medium sized and of sub-regular shape; the larger fields being found in the lower river valleys. Many of the boundaries are

comprised of tall and gappy thorn hedgerows. Occasional ridge and furrow adds to local distinctiveness.

Transport

The lanes and major roads tend to run along the edge of the flood plain, raised on embankments that minimise the risk of flooding. There are very occasional crossing points. The line of disused railway impinges on the flood plain immediately south of New Bridge.

Built Environment

Historically there was little built development on the flood plain, excepting the occasional water mill for grinding corn. There are occasional farmsteads on the higher, better drained sections. Due to their unsuitability for built development, some flood plain meadows have been made over to recreational use. Sections of the river and meadowland are lost entirely in places where they have been culverted or drained.

Summary

This is a narrow, flat, river meadow landscape characterised by a narrow alluvium flood plain associated with the Ramsley Brook and Carr Brook, which eventually discharge into the River Trent. Traditionally grazing pasture, the land-use is now defined by a mixed agricultural system with a distinct shift towards arable cropping in recent years.

The flood plain remains fairly open with relatively distant views along the valley. Trees tend to be scarce, other than the dense lines of riparian trees, a mix of alder and willow, that define the river corridors.

Fields tend to be medium and sub-regular in shape, enclosed by hawthorn hedgerows, many of which are gappy and neglected. Some hedgerows have been removed as a result of agricultural intensification and field amalgamation. Ridge and furrow add local distinctiveness to the river meadows.

The flood plains remain largely unsettled although there is the occasional former mill that would have harnessed water power. As a result, transport routes are also scarce, other than the occasional river crossing. A single railway line impinges on the flood plain immediately south of New Bridge.

Changes to improved pasture and arable, through the introduction of drainage schemes, are threatening the inherent character of these riverside meadows.

LANDSCAPE TYPE: RIVERSIDE MEADOWS

Planting and Management Guidelines

An open flood plain with dense watercourse trees.

Primary woodland character:	Unwooded
Primary tree character:	Dense watercourse trees
Woodland vision:	Occasional small wet woodlands
Tree vision:	Dense watercourse trees

Typical woodland size range:	0.5 - 5ha	small
Woodland pattern:	Organic/ linear	

- Ensure the use of indigenous tree and shrub species, including a proportion of large, long-lived species.
- Ensure a balance is maintained between new woodland planting and areas of nature conservation value.
- Enhance the visual and ecological continuity of river corridors by management, natural regeneration and planting of riparian trees.
- Encourage the continuing practice of pollarding to maintain the traditional riparian character of the landscape.

Woodland Species Mix

Waterlogged Conditions on all soil types

Primary Tree Species 50%

† *Alnus glutinosa*	Alder
† *Salix fragilis*	Crack Willow

Secondary Tree Species 20%

Major

Betula pubescens	Downy Birch
Fraxinus excelsior	Ash

Minor

* *Populus nigra ssp betulifolia*	Black Poplar
Quercus robur	Pedunculate Oak
Salix caprea	Goat Willow

Shrubs 10-30%

Major

Salix cinerea	Grey Willow
Sambucus nigra	Elder

Minor

Crataegus monogyna	Hawthorn
Frangula alnus	Alder Buckthorn
Rhamnus cathartica	Purging Buckthorn
Salix viminalis	Osier
Viburnum opulus	Guelder Rose

Open space 0-20%

† **Watercourse Trees** - tree species most appropriate for planting as watercourse trees.

* Plant only **native** Black Poplar (sub species betulifolia). Contact Derbyshire Wildlife Trust for information.

Hedgerow Species Mix

Suitable hedgerow plants

Primary 85-100%

Crataegus monogyna	Hawthorn

Occasional 0-15%

Acer campestre	Field Maple
Prunus spinosa	Blackthorn

Suitable hedgerow trees

Primary 70-75%

Fraxinus excelsior	Ash
Quercus robur	Pedunculate Oak

Secondary 25-30%

Acer campestre	Field Maple
Tilia cordata	Small Leaved Lime

Occasional 0-5%*

Malus sylvestris	Crab Apple
Populus tremula	Aspen
Sorbus aucuparia	Rowan

* only to be used if occurring locally within the landscape character type

Part One: Landscape Character Descriptions

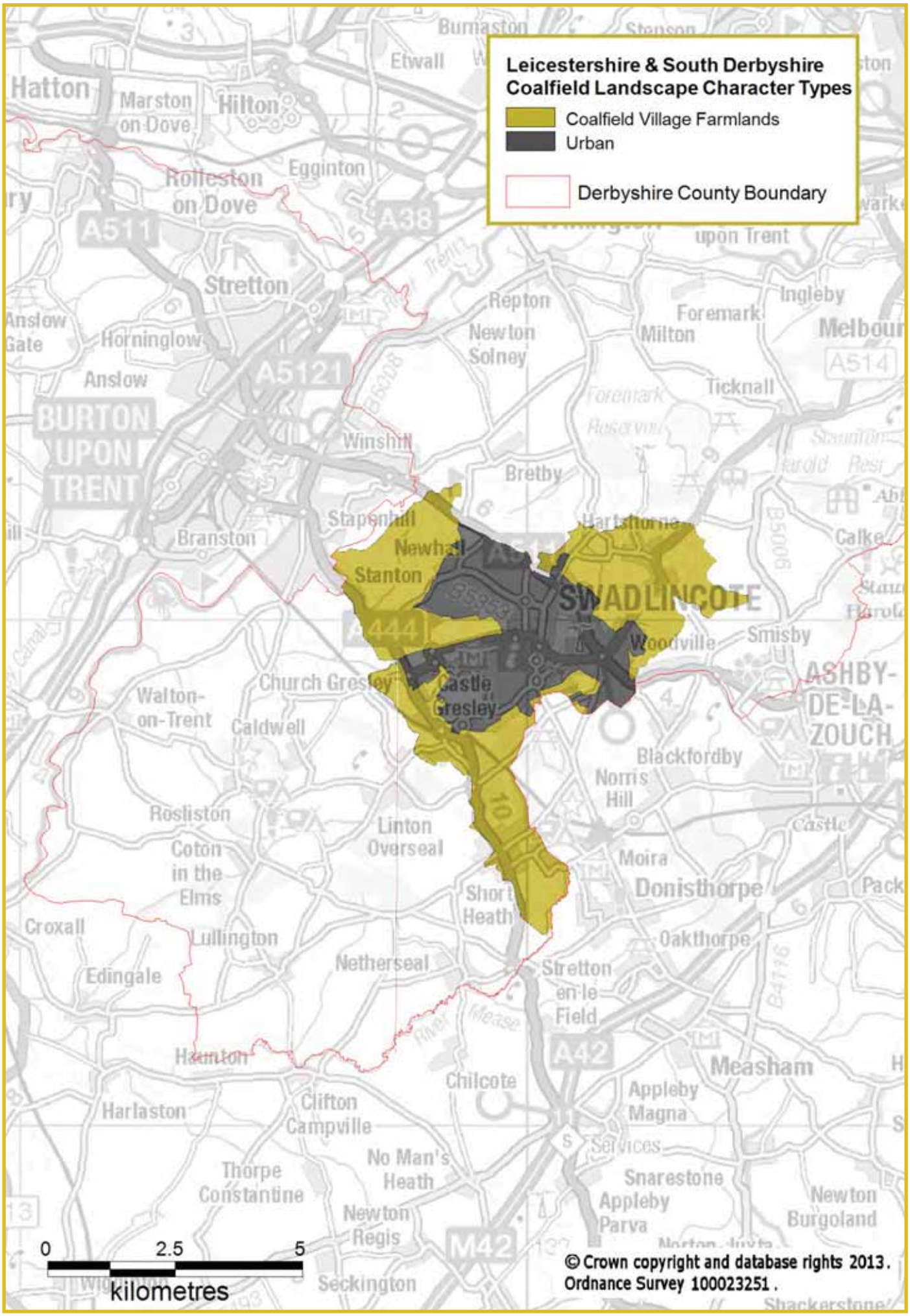
9. Leicestershire and South Derbyshire Coalfield

Landscape Character Types

- Coalfield Village Farmlands 9.4

DERBYSHIRE County Council

Improving life for local people


Leicestershire & South Derbyshire Coalfield Landscape Character Types
Coalfield Village Farmlands
Urban
Derbyshire County Boundary
Hatton
Marston on Dove
Hilton
Etwall
Egginton
Rolleston on Dove
A511
A38
Stretton
Repton
Newton Solney
Foremark
Milton
Ingleby
Melbourne
A514
Ticknall
Anslow Gate
Horninglow
Anslow
A5121
BURTON UPON TRENT
Winshill
Bretby
Stapenhill
Branston
Newhall
Stanton
Hartshorne
SWADLINCOTE
Woodville
Smisby
ASHBY-DE-LA-ZOUCH
A444
Church Gresley
Castle Gresley
Walton-on-Trent
Caldwell
Blackfordby
Norris Hill
Rosliston
Linton
Overseal
Coton in the Elms
Moira
Donisthorpe
Short Heath
Croxall
Lullington
Oakthorpe
Netherseal
Edingale
Stretton en-le Field
A42
Measham
Hamton
Chilcote
Appleby Magna
Harlaston
Clifton Campville
Services
No Man's Heath
Thorpe Constantine
Snarestone
Appleby Parva
Newton Burgoland
Newton Regis
M42
Seckington
0
2.5
5
kilometres
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Leicestershire and South Derbyshire Coalfield

CHARACTER AREA 71

A well-settled, gently undulating landscape of shallow valleys and ridges

Landscape Character Types

- Coalfield Village Farmlands

Introduction

The South Derbyshire Coalfield covers a relatively small area extending from Hartshorne in the north to Overseal in the south. There has been extensive post-war development round Swadlincote, which dominates the area.

The Coal Measure geology gives rise to an undulating landform with gentle ridges and shallow valleys. Once open in character, extensive areas of woodland have been planted. However, there is a scarcity of hedgerow trees and hedges tend to be low cut. The land-use is predominantly mixed farming but, where arable dominates, some fields have been enlarged and hedgerows have all but disappeared.

The settlement pattern is quite dense with many small villages, although in this region, the sprawling town of Swadlincote dominates the area. Much of the land around the town has been subjected to extensive large scale clay extraction and opencast coal mining, leaving immature landscape, some of which has now been developed.

The National Forest project covering the entire South Derbyshire coalfield is a great opportunity for positive change and environmental enhancement.

Physical Influences

The Leicestershire and South Derbyshire Coalfield has exposed Coal Measures in Derbyshire and concealed Coal Measures further south within Leicestershire. The exposed coalfield comprises Lower, Middle and Upper Coal Measures of the Carboniferous period. Between Swadlincote and Moira, there is a band of fireclay that has been the basis for the sanitary ware industry centred on Swadlincote.

Collectively, bands of sandstone mudstones and coal seams give rise to a gently undulating landform of ridges and shallow valleys. The whole area forms part of the watershed between the Mease to the south and the Soar to the east, with many minor streams draining the area.

Natural Influences

Much of the landscape outside the settlements has been affected by opencast coal mining with areas now restored to a variety of uses. The remainder of the land is farmed, being a mix of arable and pasture with low cut hedgerows. Although most of the grassland is agriculturally improved, patches of neutral and acid grassland remain to provide some ecological value. Other plant communities of nature conservation interest have also developed on areas of derelict land, including spoil heaps, railway lines and clay pits. In areas of acidic, freely draining material, patches of heathland have developed.

Human Influences

There is little evidence of prehistoric or Romano-British settlement in the area and, even by the time of the Domesday Book, the recorded settlements are relatively sparse. Place names suggesting heathland and some indicating woodland clearings may support this impression. However, some settlements were certainly established by the Anglo-Saxon period characterised by the 'ton' place name elements and the presence of 'by' and 'thorpe' names suggest norse settlements in the 9th and 10th centuries.

Open fields developed during the Middle Ages in areas suitable for cultivation although these were largely enclosed before the end of the 16th century. It was at that time that the mining industry began in earnest, shaping the landscape that we see today. During the 18th century, the industry developed with the introduction of steam power. The 19th century saw improved transport with the construction of canals, railways and tramways.

Mining continued to dominate the area and remained productive until fairly recent times when many pits closed and opencast mining techniques became more prevalent.

Mining was also to have a significant impact on the traditional settlement pattern, where once small villages and hamlets, with buildings clustered around a church, have been subsumed by 19th and 20th century development. Traditional building materials are red brick with Staffordshire blue clay tile roofs. A mixed range of 20th century buildings and substantial residential areas has subsumed much of the older buildings and terraced housing. Around the edges of the settlements there is typical urban fringe with 'horsiculture', run-down pasture and patchy fencing.

Although urban impacts dominate the landscape, there are areas, such as round Hartshorne, that remain essentially rural.

This Character Area lies within the National Forest and is being subject to large scale woodland planting allied to other landscape and nature conservation improvements.

Other Considerations

- The National Forest Strategy and BAP
- The Lowland Derbyshire BAP

Open cast coal mining

Leicestershire and South Derbyshire Coalfield

LANDSCAPE TYPE: COALFIELD VILLAGE FARMLANDS

An undulating, industrialised mixed farming landscape with former mining settlement, punctuated by woodland, scattered hedgerow and watercourse trees.

Key Characteristics

- Heavy, poorly draining soils over mudstone with patches of free-draining soils on sandstone ridges
- Rolling plateau of sandstone and mudstone beds with coal seams
- Pastoral farming with localised arable farming on better drained soils
- Patches of semi-natural woodland
- Scattered hedgerow trees and locally dense trees along watercourses
- Scrub and secondary woodland on derelict ground and along rail and road embankments
- Areas of former parkland, and common land, now enclosed and farmed
- Network of small irregular lanes between larger urban roads
- Red brick buildings with Staffordshire blue clay tile roofs
- Expansion of villages with red brick terraces, ribbon development and housing estates
- Legacy of coal extraction

Geology and Landform

Rocks of the Lower and Middle Coal Measures underlie this landscape. These rocks are characterised by a repeating sequence of shallow marine and swamp deposits. Each sequence begins with dark marine mudstone, grey mudstone, siltstone or sandstone, seatearth and coal. The sequences have an average thickness of 12m but can be over 60m thick. The Coal Measures are fairly easily eroded, giving rise to a gently rolling, undulating plateau. In some sequences, the sandstones are rarely or never present, while others are persistent and form upstanding features in the landscape.

There are frequent coal seams across the landscape; many have been extensively worked by deep and opencast mining. Ironstone is found in all parts of the sequences, but particularly as nodules in the mudstone bands. Ironstone was mined before coal became widely exploited.

Soils and Land-Use

The predominance of mudstone in the underlying geology tends to give rise to slowly permeable soils. Fine, clayey, gley soils that are waterlogged in the winter months are the most widespread. Over the thicker sandstone bands, there are free-draining, brown earths.

The relatively subdued topography ensures that the dominant land-use is mixed farming, resulting in a mixture of pasture and feed crops. Occasional arable crops are grown on the free-draining soils over sandstone. Some areas have been affected by opencast mining with the soils replaced. Such disturbed soils are generally very poorly drained and will only support rough grazing or woodland.

Ecology

There is an intimate mix of farmed, urban and derelict land in this landscape. The habitat types are similarly varied. The farmland supports remnants of acid grassland over sandstone with neutral grassland in the more nutrient rich valleys.

Where woodland persists it provides a valuable resource. Newly planted woodland associated with reclaimed derelict sites offers varying degrees of wildlife value, depending upon its stage of development or natural succession. Gardens in urban areas provide further valuable wildlife habitats. Neglected areas can support scrub vegetation.

There are derelict sites that have arisen due to the decline of deep coal mining and the closure of factories. Semi-natural vegetation slowly colonises these areas, sometimes producing valuable wildlife habitats. Acid heathland has colonised free-draining colliery spoil and birch has invaded some derelict sites, beginning the slow succession to woodland.

Tree Cover

Scattered, mature boundary trees are found along some hedgerows, principally ash, with some additional oak. Along stream lines there are occasional, locally dense watercourse trees, especially alder and willow. There are also locally prominent amenity trees around settlements.

Small scale woodlands occur in this landscape, often associated with areas of former parkland or with estate ownership. Some woodlands, like Hall Wood and Several Wood, are remnant ancient woodlands dominated by oak with ash, rowan, birch, hazel and holly. Other woodlands are ornamental plantation woodlands associated with former estates and contain a mix of deciduous and coniferous trees.

Woodland is being significantly extended through the National Forest area.

Enclosure

There is a wide variation in field pattern reflecting a diverse history of enclosure. Early enclosure of medieval open fields tends to show an irregular field pattern. Some areas still feature narrow, curved fields that preserve the strips of the open fields system. Hedgerows contain a mix of species including holly, hawthorn, hazel and maple. This is a field pattern strongly associated with the urban fringes of many of the mining villages scattered through the landscape.

Enclosure by Parliamentary award created a geometric field pattern of thorn hedgerows.

Transport

There are many curving lanes with irregular width verges. These lanes curve to follow historic ownership boundaries. In areas of parliamentary enclosure, the lanes are straight with uniform width verges on each side.

A dense network of footpaths cuts across farmland to connect settlements and outlying farmsteads. These footpaths tend to follow a fairly direct route, often running beside a hedgerow.

Built Environment

Historic buildings are constructed from red brick with Staffordshire blue clay tile roofs. The cores of villages are characteristically a mix of red brick with occasional sandstone buildings. Some older farmsteads are constructed of stone.

There was very rapid development of the coalfield following the start of the industrial revolution. Most of the buildings of the past two centuries have been constructed of red brick. Such buildings are particularly significant in mining settlements. Red brick terraces and factories give a very strong character to such settlements.

Summary

The South Derbyshire Coal Measures are characterised by a repeating sequence of mudstones, sandstones and coal seams, which strongly influences both the physical and cultural patterns of the landscape. The mudstones and coal seams are easily weathered which creates a gently undulating landscape with the sandstone bands forming the ridges.

The predominance of mudstone in the southern-most region of the coalfield has given rise to heavier, slowly permeable soils. The more loamy, free-draining soils are restricted to the narrow sandstone bands. In turn, these heavier soils associated with the mudstone are less easily cultivated which historically has led to a mixed farming system with fodder and some arable crops being grown on the better soils.

Where soils have been particularly uncultivable, remnant semi-natural woodland still persists or small woodlands have been planted. Hedgerow trees, predominantly oak but also ash, tend to be prevalent in areas where the soils are heavier and the land-use remains pastoral.

Much of the coalfield has been impacted upon by mining. Many of the natural and cultural patterns are now eroded as a consequence. This has left its own mark on the landscape in the form of spoil heaps, dereliction and the expansion of small rural villages with red brick terraced housing. Derelict areas have been reworked as part of opencast mining schemes, creating tracts of immature landscape.

Planting and Management Guidelines

An urbanised landscape punctuated by the very occasional small, organic woodland with thinly scattered hedgerow and watercourse trees.
All this landscape character type is within the National Forest.

Primary woodland character:	Thinly scattered small woodlands
Primary tree character:	Thinly scattered hedgerow and dense watercourse trees
Woodland vision:	Refer to National Forest Strategy and Guidance
Tree vision:	Densely scattered hedgerow and dense watercourse trees
Typical woodland size range:	Refer to National Forest Strategy and Guidance
Woodland pattern:	Refer to National Forest Strategy and Guidance

- Re-establish and enhance physical links between existing isolated woodland and hedgerows.
- Ensure the management and enhancement of hedgerow trees, through selection and natural regeneration, or by planting.
- Enhance the visual and ecological continuity of river corridors by management, natural regeneration and planting of riparian trees.
- Ensure the conservation and management of mature/veteran trees within hedgerows.
- Refer to National Forest Strategy and Guidance.

Note
With the National Forest there has been large scale afforestation of the landscape to create extensive woodland. Today this provides value as a recreational resource for activities such as walking, cycling and nature conservation.

Woodland Species Mix

Neutral/Slightly Acidic Soils

Primary Tree Species 50%

Betula pendula	Silver Birch
Quercus petraea	Sessile Oak
Quercus robur	Pedunculate Oak

Secondary Tree Species 20%

Major

Betula pubescens	Downy Birch
Fraxinus excelsior	Ash
Ilex aquifolium	Holly

Minor

Acer campestre	Field Maple
Sorbus aucuparia	Rowan

Shrubs 10-30%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn

Minor

Frangula alnus	Alder Buckthorn
Prunus spinosa	Blackthorn
Rosa canina	Dog Rose
Viburnum opulus	Guelder Rose

Open space 0-20%

Waterlogged Conditions on all soil types

Primary Tree Species 50%

† *Alnus glutinosa*	Alder
† *Salix fragilis*	Crack Willow

Secondary Tree Species 20%

Major

Betula pubescens	Downy Birch
Ilex aquifolium	Holly
Quercus petraea	Sessile Oak

Minor

Populus tremula	Aspen
Salix caprea	Goat Willow
Sorbus aucuparia	Rowan

Shrubs 10-30%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn
Salix cinerea	Grey Willow

Minor

Prunus spinosa	Blackthorn
Viburnum opulus	Guelder Rose

Open space 0-20%

† Watercourse Trees - tree species most appropriate for planting as watercourse trees.

Hedgerow Species Mix

Suitable hedgerow plants

Primary 70-75%

Crataegus monogyna	Hawthorn

Secondary 25-30%

Acer campestre	Field Maple
Corylus avellana	Hazel
Ilex aquifolium	Holly
Prunus spinosa	Blackthorn

Occasional 0-5%

Frangula alnus	Alder Buckthorn
Rosa canina	Dog Rose
Viburnum opulus	Guelder Rose

Suitable hedgerow trees

Primary 80-85%

Fraxinus excelsior	Ash
Quercus petraea	Sessile Oak
Quercus robur	Pedunculate Oak

Secondary 15-20%

Acer campestre	Field Maple

Occasional 0-5%*

Sorbus aucuparia	Rowan

* only to be used if occurring locally within the landscape character type

10. Mease/Sence Lowlands

Landscape Character Types

- Village Estate Farmlands 10.4
- Riverside Meadows 10.8

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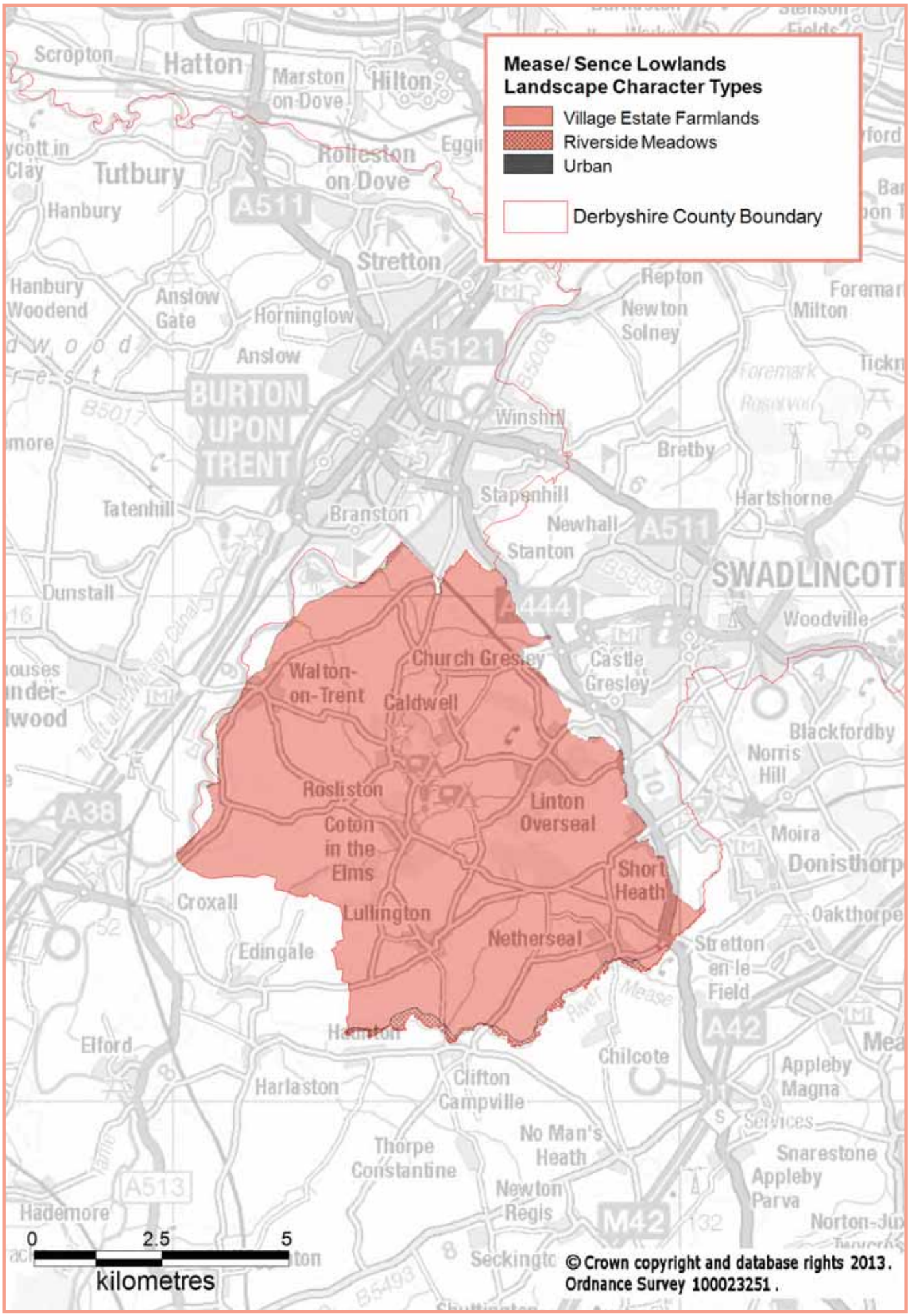
Mease/ Sence Lowlands
Landscape Character Types
Village Estate Farmlands
Riverside Meadows
Urban
Derbyshire County Boundary
Walton-on-Trent
Church Gresley
Caldwell
Rosliston
Coton in the Elms
Linton
Overseal
Short Heath
Lullington
Netherseal
Castle Gresley
Swadlincote
Burton upon Trent
Stretton
Rolleston on Dove
Hatton
Hilton
Marston on Dove
Tutbury
Hanbury
Anslow Gate
Horninglow
Anslow
Repton
Newton Solney
Winshill
Bretby
Stapenhill
Branston
Newhall
Stanton
Hartshorne
Tatenhill
Dunstall
Woodville
Blackfordby
Norris Hill
Moira
Donisthorpe
Oakthorpe
Croxall
Edingale
Elford
Harlaston
Clifton Campville
Chilcote
Appleby Magna
Thorpe Constantine
No Man's Heath
Newton Regis
Snarestone
Appleby Parva
Hademore
Seckington
Stretton en le Field
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Ordnance Survey 100023251.

Mease/Sence Lowlands

CHARACTER AREA 72

A gently rolling agricultural landscape with scattered villages and occasional country houses.

Landscape Character Types

- Village Estate Farmlands
- Riverside Meadows

"...this extreme southern limit of the county ... is generally gently rolling and park-like, with a fair scattering of copses for fox coverts...."

p57 Roy Christian 'Derbyshire'

Introduction

The Mease/Sence Lowlands lie at the southern most limits of Derbyshire, being bordered to the west by the Trent Valley and to the north and east by the South Derbyshire Coalfield. It is an area of typical rolling lowland becoming almost flat around the River Mease which forms the county boundary to the south.

Much of the area remained in open field cultivation until the 18th and 19th centuries when it was enclosed into the regular field patterns that are still evident today. The area is predominantly an open agricultural landscape with small copses and spinneys on ridges, and occasional trees scattered along watercourses. Woodland is apparent in association with parkland scattered through the area, as at Catton Park and Grangewood Park. Woodland cover has now increased significantly due to the National Forest Initiative.

Villages, like Coton-in-the-Elms and Lullington, generally located on the minor ridgelines, are a prominent feature of this Character Area. The traditional building material is red brick with Staffordshire blue clay tile roofs. A spired church is often a focal point within the village and the wider landscape.

Only adjacent to Burton-upon-Trent has there been any significant post-war development. The villages retain a largely remote and rural character.

Power lines and pylons extending from the power stations in the Trent Valley are visually significant man-made features in the area, generally detracting from the rural scene.

Physical Influences

The area is dominated by the Triassic Mercia Mudstones that give rise to productive, reddish clay soils. There are outcrops of Triassic Sandstone extending southwards and westwards from the coalfield, supporting free-draining, sandy soils. The overall landform, defining the *Village Estate Farmlands*, is that of gently rolling lowland with minor ridges and shallow valleys. The River Mease, flowing through *Riverside Meadows*, drains the South Derbyshire Coalfield westwards into the River Tame. Smaller streams in the north drain directly into the Trent and carve out a locally undulating landform.

Natural Influences

Due to the productivity of the soils, most of the land is in intensive agricultural use and, as a result, contains very few semi-natural habitats. Many hedgerows have been removed to create larger fields and hedgerow trees, mainly ash and oak, are only sparsely scattered through the remainder. Within the *Village Estate Farmlands* there are extensive areas of intensive arable farming with low hedgerows and few trees. Where the ground is steeper or the soils heavier, the land is less intensively

farmed with a mix of arable and pasture. Here the hedgerows are more substantial, hedgerow trees are more frequent and there is some permanent pasture.

The main ecological value of the area comes from small and intermittent woodlands, comprising spinneys, copses and game coverts, planted on ridges to create a well-treed character to some areas. Country house parks have been encroached upon and parkland trees, often in poor condition, can be seen within farmland.

There are often willows and alders along minor streams and within the *Riverside Meadows*. The ecological value of the River Mease is reflected in its status as a designated Special Area of Conservation (SAC).

Human Influences

The many place names ending in 'ton', the lack of woodland names and the occasional references to heath indicate that the area has a history of settlement from an early date.

There is scattered evidence of Neolithic and Bronze Age activity in the area from finds and sites, although this appears to relate to activity spreading out from the Trent and Tame Valleys. There was further clearance from occupation during the Iron Age and Roman periods.

By the time of the Domesday Book, settlement was sparse. The landscape was one of evenly distributed villages, usually on the minor ridges, set in and overlooking open fields. The dissolution of the monasteries in the 16th century and the developing land market led to the formation of large estates and ultimately the construction of large country houses and landscaped parks that are a component of the *Village Estate Farmlands* today.

Most of the land remained unenclosed in open fields until the 18th and 19th centuries when the rectilinear pattern of fields, that is still seen today, was created. During this time of enclosure, farms were built in the newly enclosed fields and were sometimes given names, such as Botany Bay, that reflect events of the day. The main impacts relate to agricultural intensification leading to the over-management and removal of hedgerows and the subsequent loss of hedgerow trees.

Industrial development largely passed the area by, although the imposition of power stations within the Trent Valley, and the associated pylons and power lines, has a significant visual impact in this open landscape.

The traditional building materials that define the *Village Estate Farmlands* are a mellow red brick with Staffordshire blue clay tile roofs. Some local sandstones were used for high status building and architectural detailing. The villages in the area remain essentially rural in character, connected by straight enclosure roads.

This Character Area lies within the National Forest and is being subject to large scale woodland planting allied to other landscape and habitat enhancement.

Other Considerations

- The National Forest Strategy and BAP
- The Lowland Derbyshire BAP

Mease/Sence Lowlands

LANDSCAPE TYPE: VILLAGE ESTATE FARMLANDS

This is a well-ordered, gently rolling agricultural landscape punctuated by discrete villages, scattered estate farmsteads and country houses. There are small game coverts and dense lines of trees along watercourses.

Key Characteristics

- Broad scale, gently rolling lowland landscape
- Seasonally waterlogged fine loamy soils over Permo-Triassic Mudstone
- Mixed farming with intensive cropping and improved permanent pasture
- Broadleaf plantations and game coverts
- Tree lined, pastoral stream corridors
- Medium to large regular and sub-regular fields with mainly hawthorn hedgerows
- Winding country lanes with wide grass verges
- Small nucleated hilltop villages often with prominent church spire

Geology and Landform

This is a landscape underlain with Permo-Triassic Mudstones and Clay Shales which are easily eroded, giving rise to a subdued, rounded and gently rolling landform. Small streams have created shallow valleys.

Soils and Land-Use

The soil is typical of those developed on thin drift over Permo-Triassic Mudstone or Clay Shales. The soils form a mosaic of neutral to base-rich brown earths which are subject to some seasonal waterlogging.

The land-use is typically mixed farming but with appropriate management and some underdrainage, the land grows moderately good crops and cereals. Ley grassland usually forms part of the crop rotation so that cattle and sheep are an integral part of the farming system.

Ecology

The Mease/Sence Lowlands is primarily an agricultural landscape and most of its habitats are associated with farmland. Unimproved pasture is the most important habitat type, often in association with features such as hedgerows and fields ponds. Watercourses are also important as wildlife corridors, forming a network of linked sites that are lined by dense tree belts of alder and willow with the occasional ash. The terrestrial network is further enhanced by numerous hedgerow boundaries, although many of these are over-managed.

Remnant unimproved grassland persists in many of the wide road verges throughout this landscape character type. Their value is unfortunately diminishing due to a lack of management, which is allowing the encroachment of bramble and scrub. Patches of unimproved grassland still persist around some of the villages and along the minor stream valleys. Woodland is becoming a prominent feature due to the National Forest Initiative.

Tree Cover

Tree cover patterns are variable relating mainly to the intensity of agriculture and new planting as part of the National Forest. There is an estate influence in the small ornamental plantations scattered throughout and the occasional mature tree. Many of the woodlands tend to be small with regular shaped outlines, and a variable species composition including chestnut, lime, oak and redwood. Modern plantations are large with mixed native species.

Hedgerow trees, usually ash and oak, are sparsely scattered through the landscape. They are more abundant in areas of pasture, although never a visually prominent feature. Along the minor streams that dissect this landscape type there are dense continuous lines of trees, predominantly alder and willow with the occasional ash.

Large mature trees occur in areas of former parkland around country houses and locally prominent amenity trees are associated with some farms and villages.

Where trees are absent there are views through the landscape, the village church often appears as a focal point to these. However, long distance views out to other landscapes tend to be limited by a lack of elevation and suitable vantage points.

Enclosure

This is a landscape that owes much of its character to the enclosure, by Parliamentary Act or agreement, of former open fields. As a result, the enclosure pattern is defined by large to medium size regular and sub-regular fields with hawthorn hedgerows. Many of these hedgerows are kept closely cropped and are now becoming gappy with little stock control.

There are pockets of earlier enclosure around the villages and adjacent to ancient lanes, which tend to be smaller scale and have more mixed species hedgerows. This is a well-ordered landscape of open views and quiet rural character.

The once extensive surviving ridge and furrow in this area is now much reduced due to agricultural intensification.

Transport

There is a network of winding country lanes connecting villages and sparsely scattered farmsteads. Many lanes have wide grassy verges, becoming increasingly overgrown with scrub.

Built Environment

Nucleated villages, occupying locally higher ground, are dotted around this rolling lowland landscape. The characteristically tall spires of village churches punctuate the skyline. Traditional building materials are red brick with Staffordshire blue clay tile roofs.

Between villages there are scattered, large, red brick farm complexes, characteristic of estate properties, and occasional country houses like Caldwell Hall and Grangewood Hall.

Summary

This is a lowland agricultural landscape characterised by intensive arable farming. Underlying mudstones give rise to a gently rolling landform and base-rich soils that can be easily improved, making them easily cultivable and ideal for farming.

The arable land-use is a key characteristic, as is the field pattern, which owes much to its enclosure by Parliamentary Act and agreement. The resultant fields tend to be large in size and regular in shape with hawthorn hedgerows. With the intensification of agriculture, the cultural patterns are now being eroded. Some hedgerows have been removed or have become gappy due to poor management.

Small nucleated villages like Coton-in-the-Elms, Lullington and Netherseal are a key feature with prominent, tall church spires and punctuate this essentially agricultural landscape along with plantation woods and game coverts.

Woodland is becoming more visually prominent due to the National Forest Initiative. The underlying estate character is still reflected in the traditionally small scale plantations or game coverts often containing many non-native and ornamental species. The estate character is reinforced by occasional parkland trees associated with country houses scattered through the landscape and large estate farm complexes. Hedgerow trees are sparse throughout, usually associated with areas of pasture, and are generally in decline due to the intensification of agriculture. Trees are visually more apparent in the lower lying valleys associated with narrow stream corridors.

LANDSCAPE TYPE: VILLAGE ESTATE FARMLANDS

Planting and Management Guidelines

Gently rolling agricultural landscape punctuated by thinly scattered small plantations with dense watercourse trees.
All of this landscape character type is within the National Forest.

Primary woodland character:	Thinly scattered small woodlands
Primary tree character:	Thinly scattered hedgerow and dense watercourse trees
Woodland vision:	Refer to the National Forest Strategy and Guidance
Tree vision:	Thinly scattered hedgerow and dense watercourse trees
Typical woodland size range:	Refer to the National Forest Strategy and Guidance
Woodland pattern:	Refer to the National Forest Strategy and Guidance

- Promote linked extensions to ancient woodland by natural regeneration and planting.
- Re-establish and enhance physical links between existing isolated woodland and hedgerows.
- Enhance the visual and ecological continuity of river corridors by management, natural regeneration and planting of riparian trees.
- Conserve and renew ornamental plantations and individual parkland trees.
- Refer to the National Forest Strategy and Guidance.

Woodland Species Mix

Neutral/Base-Rich Soils

Primary Tree Species 50%

Fraxinus excelsior	Ash
Quercus robur	Pedunculate Oak

Secondary Tree Species 20%

Major

Acer campestre	Field Maple
Ilex aquifolium	Holly

Minor

Malus sylvestris	Crab Apple
Populus tremula	Aspen
Sorbus aucuparia	Rowan
Tilia cordata	Small Leaved Lime

Shrubs 10-30%

Major

Corylus avellana	Hazel
Crataegus monogyna	Hawthorn

Minor

Prunus spinosa	Blackthorn
Rhamnus cathartica	Purging Buckthorn
Salix cinerea	Grey Willow

Open space 0-20%

Waterlogged Conditions on all soil types

Primary Tree Species 50%

† *Alnus glutinosa*	Alder
† *Salix fragilis*	Crack Willow

Secondary Tree Species 20%

Major

Betula pubescens	Downy Birch
Fraxinus excelsior	Ash

Minor

* *Populus nigra ssp betulifolia*	Black Poplar
Quercus robur	Pedunculate Oak
Salix caprea	Goat Willow

Shrubs 10-30%

Major

Salix cinerea	Grey Willow
Sambucus nigra	Elder

Minor

Crataegus monogyna	Hawthorn
Frangula alnus	Alder Buckthorn
Rhamnus cathartica	Purging Buckthorn
Salix viminalis	Osier
Viburnum opulus	Guelder Rose

Open space 0-20%

† **Watercourse Trees** - tree species most appropriate for planting as watercourse trees.

* Plant only **native** Black Poplar (sub species betulifolia). Contact Derbyshire Wildlife Trust for information.

Hedgerow Species Mix

Suitable hedgerow plants

Primary 70-75%

Crataegus monogyna	Hawthorn

Secondary 25-30%

Acer campestre	Field Maple
Corylus avellana	Hazel
Ilex aquifolium	Holly
Prunus spinosa	Blackthorn

Occasional 0-5%

Rhamnus cathartica	Purging Buckthorn

Suitable hedgerow trees

Primary 70-75%

Fraxinus excelsior	Ash
Quercus robur	Pedunculate Oak

Secondary 25-30%

Acer campestre	Field Maple
Tilia cordata	Small Leaved Lime

Occasional 0-5%*

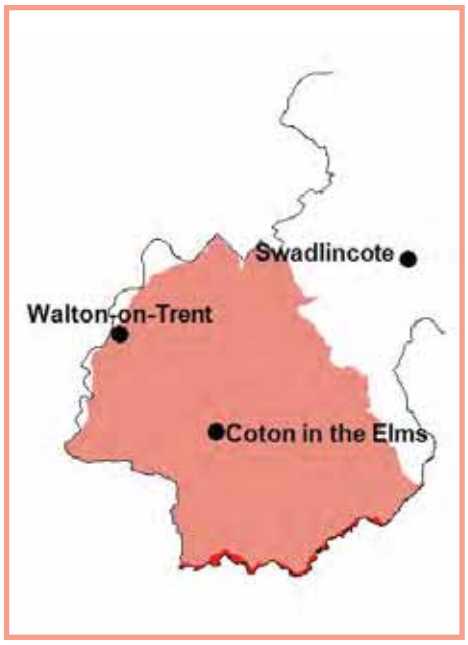
Malus sylvestris	Crab Apple
Populus tremula	Aspen
Sorbus aucuparia	Rowan

* only to be used if occurring locally within the landscape character type

Mease/Sence Lowlands

LANDSCAPE TYPE: RIVERSIDE MEADOWS

A narrow, flat flood plain, containing a tightly meandering river with scattered trees along riverbanks, including willow pollards. A pastoral landscape of generally small, regular, hedged fields.



Key Characteristics

- Flat flood plains containing a tightly meandering river
- Seasonally waterlogged soils over alluvium
- Moderate intensity permanent pasture
- Localised patches of rushes in damp hollows
- Scattered, locally dense trees along watercourses
- Regular shaped fields bounded by predominantly hawthorn hedges
- Lanes alongside or crossing the flood plain

Geology and Landform

The underlying sediment of these flat flood plains consists of alluvial mud lying over gravels, deposited by the rivers in times of flood. The gravel acts as an aquifer carrying water from the adjoining land into the rivers and so is permanently waterlogged. In places there are natural raised banks to the rivers known as levees. These are formed by the deposition of sediment by waning floodwaters.

Soils and Land-Use

The soils are seasonally waterlogged, clayey loams. Some areas are more permanently waterlogged and some hollows retain floodwater long after the majority of floods have subsided. The predominant land-use is pastoral.

The flood plain makes good quality fattening pastures. The wet, fine textured soils and risk of flooding make the land difficult to work for arable cropping although some arable fields can be found as a result of recent drainage improvements and flood protection measures.

Ecology

The River Mease is relatively unpolluted making it very valuable as a freshwater habitat. Additional ecological value relates to the river banks and margins particularly associated with riparian trees.

Pastures with a high water table and where the soil is permanently wet are important ecologically for their species-rich flora, ground beetles and birds, such as curlew and snipe. These habitats are becoming increasingly rare, as former pastures have often been converted to arable following drainage improvements. However, there are a few fields that remain unimproved and, as a consequence, retain some ecological value.

Tree Cover

There are scattered, locally dense lines of trees along the riverbanks, mainly alder but with occasional willows.

Lines of trees along watercourses

Some willows have been pollarded and these form visually distinctive features associated with the flood plain. Many trees have been removed from the riverbanks as part of flood protection works and there is die-back in other places.

There are very few trees associated with hedgerows.

Enclosure

Fields are small and of regular shape; the larger fields being found in the lower river valleys. Many boundaries are comprised of neglected, tall and gappy hawthorn hedgerows. The hedgerows that demarcate the edge of the flood plain remain well defined and include many more species, such as hazel, blackthorn and holly.

Transport

Lanes and major roads tend to run along the edge of the flood plain, raised on embankments, to avoid the risk of flooding.

Occasionally, roads cross the valleys on small, red brick bridges over the rivers.

Built Environment

Historically, there was little built development on the flood plain, excepting the occasional water mill for grinding corn constructed from red brick with a Staffordshire blue clay tile roof.

Summary

This is a narrow, flat river meadow landscape characterised by a narrow alluvium flood plain associated with the River Mease. Traditionally grazing pasture, the land-use is now defined by a mixed agricultural system with a distinct shift towards arable cropping in recent years.

The flood plain remains fairly open with relatively distant views along the valley. Trees tend to be scarce other than the dense line of riparian trees, a mix of alder and willow, that define the river corridor. Occasional willow pollards form visually distinctive features.

Fields tend to be small sized and regular in shape, enclosed by hawthorn hedgerows, many of which are gappy and neglected. Some hedgerows have been removed as a result of agricultural intensification and field amalgamation.

The flood plains remain largely unsettled although there is the occasional mill that would have harnessed the power of the stream. Transport routes are scarce excepting the occasional river crossing.

The intensification of agriculture and conversion to arable following drainage schemes is threatening the inherent character of these riverside meadows.

LANDSCAPE TYPE: RIVERSIDE MEADOWS

Planting and Management Guidelines

An open flood plain with scattered watercourse trees.
All of this landscape character type is within the National Forest.

Primary woodland character:	Unwooded
Primary tree character:	Scattered watercourse trees
Woodland vision:	Refer to the National Forest Strategy and Guidance
Tree vision:	Dense watercourse trees
Typical woodland size range:	Refer to the National Forest Strategy and Guidance
Woodland pattern:	Refer to the National Forest Strategy and Guidance

- Ensure the use of indigenous tree and shrub species, including a proportion of large, long-lived species.
- Ensure a balance is maintained between new woodland planting and areas of nature conservation value.
- Enhance the visual and ecological continuity of river corridors by management, natural regeneration and planting of riparian trees.
- Encourage the continuing practice of pollarding to maintain the traditional riparian character of the landscape.
- Refer to the National Forest Strategy and Guidance.

Woodland Species Mix

Tree and Shrub Species Mix

Primary Tree Species 50%

† *Alnus glutinosa*	Alder
† *Salix fragilis*	Crack Willow

Secondary Tree Species 20%

Major

Betula pubescens	Downy Birch
Fraxinus excelsior	Ash

Minor

* *Populus nigra* ssp *betulifolia*	Black Poplar
Quercus robur	Pedunculate Oak
Salix caprea	Goat Willow

Shrubs 10-30%

Major

Salix cinerea	Grey Willow
Sambucus nigra	Elder

Minor

Crataegus monogyna	Hawthorn
Frangula alnus	Alder Buckthorn
Rhamnus cathartica	Purging Buckthorn
Salix viminalis	Osier
Viburnum opulus	Guelder Rose

Open space 0-20%

† **Watercourse Trees** - tree species most appropriate for planting as watercourse trees.

* Plant only **native** Black Poplar (sub species betulifolia). Contact Derbyshire Wildlife Trust for information.

Hedgerow Species Mix

Suitable hedgerow plants

Primary 85-100%

Crataegus monogyna	Hawthorn

Occasional 0-5%

Rhamnus cathartica	Purging Buckthorn

Suitable hedgerow trees

Primary 70-75%

Fraxinus excelsior	Ash
Quercus robur	Pedunculate Oak

Secondary 25-30%

Acer campestre	Field Maple
Tilia cordata	Small Leaved Lime

Occasional 0-5%*

Malus sylvestris	Crab Apple
Populus tremula	Aspen
Sorbus aucuparia	Rowan

* only to be used if occurring locally within the landscape character type

PART TWO – MANAGING DEVELOPMENT AND LANDSCAPE CHANGE

Introduction

Development can and does impact on the landscape. In order to encourage the retention of the individual characteristics and distinctive features of Derbyshire's landscapes, guidance has been provided for the design and location of new development within the countryside.

This information has been presented in the form of the summary table 'Landscape Management Guidelines'. This table provides assistance in targeting the key landscape considerations for each Landscape Character Type (LCT). This section is now supplemented by the identification of 'Areas of Multiple Environmental Sensitivity' (AMES) in Part 4, the use of fixed point photography in Part 5 to help monitor landscape change, and case studies that demonstrate the successful application of the landscape character assessment in Part 6.

Management Aims

The summary table has been designed to address a number of key landscape management aims and objectives for each LCT. These management issues have been prioritised in the table as:

- Primary aim
- Secondary aim
- Not applicable

These terms are defined below:

Primary Aim - where the management objective addresses a key defining characteristic and/or there is considered to be major development and/or land management pressure operating in a given LCT.

Secondary Aim - where the management objective addresses a characteristic of a variable nature or localised value and/or there is considered to be a moderate to low development and/or land management pressure operating in a given LCT.

Not Applicable - where the management objective addresses a characteristic that is not a key characteristic and/or there is considered to be insignificant development and/or land management pressure in a given LCT.

Definition of Terms

Settlement and Buildings

Conservation of rural character

- Where built development, including modern housing, could have a significant and detrimental effect on landscape character and where there are clear development pressures.

Conservation of settlement pattern

- Where a clear and distinctive settlement pattern could easily be eroded or destroyed by new built development, and where there are clear development pressures.

Conservation of vernacular character

- Where a particular building style or building material makes a significant contribution to the character of the landscape and local distinctiveness, e.g. magnesian limestone cottages with red clay pantile roofs.

Land Management

Conservation of historic features

- Where notable historic features make a significant contribution to landscape character and local distinctiveness, and could be affected by inappropriate land management practices, such as agricultural intensification, and where these forces for change are evident, e.g. ridge and furrow.

Conservation of pastoral character

- Where the land-use is a visually prominent characteristic defined by pastoral farming and where forces for change, such as agricultural conversion and diversification, are signaling a potential shift in character.

Maintenance of ponds

- Where ponds and seasonally flooded areas are a key characteristic supported by the underlying physical conditions.

Management of arable field margins

- Where arable and mixed farming practices are the predominant land-use and it is desirable to promote the more sensitive management of field margins for the benefit of nature conservation.

Restoration of unimproved permanent pasture

- Where the traditional land-use is pastoral farming but where there has been an increasing trend towards alternative agricultural practices and where this trend, if continued, could have a significant and detrimental effect upon landscape character.

Management of river and stream corridors

- Where minor streams and their associated watercourse trees are a frequent and visually important component of the landscape, the management of which it is important to retain.

Management of roadside vegetation

- Where roadside verges still retain remnant vegetation of the wider landscape character, e.g. heather in moorland roads, bluebells in ancient wooded landscapes.

Management of semi-natural habitats

- Where semi-natural habitats are widespread and comprise an important part of the overall landscape character and where their management should be a primary consideration of the landscape, e.g. heather moorland.

Habitat creation/ restoration

- Where the inherent conditions or traditional management practices support a characteristic habitat type, which may be poorly represented in that LCT, e.g. heathland in Sandstone Slopes and Heaths.

Field Boundaries

Conservation of historic field pattern

- Where the landscape is defined by a clear and consistent field pattern that it is considered important to preserve for its visual qualities or is irreplaceable, e.g. irregular field patterns created from woodland assarts.

Conservation of primary field boundaries

- Where there are strong cultural associations, i.e. landscapes with a long history of settlement, and where boundaries demarcate strong cultural lines, e.g. parish boundaries, sinuous boundary demarcating edge of floodplain.

Hedgerow replanting and management

- Where hedgerows are the traditional field boundary and where there is an overall desire, coupled to appropriate management, to strengthen this character by replanting or infilling hedge lines.

Primary Aim	P
Secondary Aim	S
Not Applicable	-

Landscape Types	Dark Peak					White Peak				Derbyshire Peak Fringe and Lower Derwent						Nottinghamshire, Derbyshire and Yorkshire Coalfield							Southern Magnesian Limestone		Needwood and South Derbyshire Claylands					Trent Valley Washlands			Melbourne Parklands				L & SDC	Mease/ Sence Lowlands	
	Open Moors	Enclosed Moorland	Moorland Fringe	Settled Valley Pastures	Riverside Meadows	Plateau Pastures	Upland Limestone Pastures	Limestone Slopes	Limestone Dales	Enclosed Moors and Heaths	Wooded Slopes and Valleys	Wooded Farmlands	Gritstone Heaths and Commons	Settled Farmlands	Riverside Meadows	Wooded Hills and Valleys	Coalfield Village Farmlands	Estate Farmlands	Wooded Farmland	Coalfield Estatelands	Plateau Estate Farmland	Riverside Meadows	Limestone Farmlands	Limestone Gorges	Settled Farmlands	Settled Plateau Farmlands	Sandstone Slopes and Heaths	Estate Farmlands	Riverside Meadows	Lowland Village Farmlands	Wet Pasture Meadows	Riverside Meadows	Estate Farmlands	Wooded Estatelands	Sandstone Slopes and Heaths	Riverside Meadows	Coalfield Village Farmlands	Village Estate Farmlands	Riverside Meadows
Settlement and Buildings																																							
Conservation of rural character	-	P	P	S	P	P	-	P	-	P	P	P	P	P	P	P	S	S	P	S	P	P	P	P	P	P	P	P	P	P	-	P	P	P	P	P	S	P	P
Conservation of settlement pattern	-	P	P	S	-	P	-	P	-	P	P	P	P	P	-	S	P	S	S	S	-	P	P	-	P	P	P	P	-	P	-	-	P	P	P	-	S	P	-
Conservation of vernacular pattern	-	P	P	S	S	P	-	P	-	P	P	P	S	P	S	S	S	S	S	S	S	S	P	P	P	P	S	P	S	S	-	S	P	P	S	S	S	P	S
Land Management																																							
Conservation of historic features	P	S	S	S	S	P	S	P	S	S	S	S	S	P	P	S	S	S	S	S	P	S	S	P	P	S	P	P	S	P	S	P	P	P	S	S	S	S	S
Conservation of pastoral character	-	P	P	P	P	P	P	P	P	P	P	S	S	P	P	S	P	S	P	S	P	S	-	P	P	S	S	S	P	S	S	P	S	S	S	P	S	S	P
Maintenance of ponds	-	-	-	S	P	S	-	-	S	-	S	S	-	S	P	S	S	S	S	S	P	S	-	-	S	-	-	S	P	P	S	P	S	S	-	P	S	S	P
Management of arable field margins	-	-	-	-	-	-	-	-	-	-	-	S	S	-	-	S	S	P	S	S	-	P	P	-	S	S	S	P	-	S	S	-	P	S	S	-	S	P	-
Restoration of unimproved permanent pasture	-	S	S	P	P	P	P	P	P	S	P	P	S	P	P	P	P	S	P	S	P	S	S	S	P	S	P	S	P	S	P	P	S	S	P	P	S	S	P
Management of river and stream corridors	-	S	S	P	P	-	-	-	P	-	P	S	S	P	P	P	S	S	P	S	P	S	S	P	P	S	S	P	P	P	P	P	S	S	S	P	S	P	P
Management of roadside vegetation	-	P	P	S	-	P	S	P	S	P	S	S	P	S	-	S	S	S	S	S	-	S	P	-	S	S	P	S	-	S	-	-	S	S	P	-	S	P	-
Management of semi-natural habitats	P	P	P	S	P	S	P	P	P	P	P	P	P	P	P	P	P	S	P	S	P	P	S	P	P	S	P	S	P	S	P	P	S	S	P	P	P	S	P
Habitat creation/ restoration	-1	P	P	S	P	S	P	P	P	P	P	P	P	P	P	S	P	S	P	S	P	P	S	P	P	S	P	S	P	P	P	P	S	S	P	P	P	S	P
Field Boundaries																																							
Conservation of historic field pattern	-	S	S	S	S	P	S	P	-	S	P	P	S	P	S	S	P	S	P	S	-	S	S	-	P	P	S	S	S	S	S	S	S	S	S	S	P	S	S
Conservation of primary field boundaries	-	-	-	S	P	S	-	-	-	-	P	P	S	P	P	P	P	P	P	P	P	P	P	-	P	P	P	P	P	P	S	P	P	P	P	P	P	P	P
Hedgerow replanting and management *	-	-	-	S	S	-	-	-	-	-	P	P	S	P	S	P	P	S	P	S	S	P	P	-	P	P	P	P	S	P	S	S	P	S	S	S	P	P	S

L & SDC—Leicestershire and South Derbyshire Coalfield

1 - Habitat creation is not applicable because this LCT is already considered to comprise of extensive areas of semi-natural vegetation. The management would be to conserve this existing habitat.

* - Refer to the relevant Biodiversity Action Plan and the Derbyshire Wildlife Trust Habitat Creation Guide

PART THREE - LINKING LANDSCAPE CHARACTER TO BIODIVERSITY

Introduction

In 1994 the UK Biodiversity Action Plan (BAP) set out priority habitats and species that required protection. Local BAPs have since been produced to meet targets for habitat and species protection specific to local areas. There are two Biodiversity Action Plans (BAPs) covering Derbyshire:

- Peak District BAP - http://www.peakdistrict.gov.uk/looking-after/biodiversity/biodiversity-action-plan
- Lowland Derbyshire BAP - http://www.derbyshirebiodiversity.org.uk/lbaps/lowland-derbyshire.php

The National Forest also has its own BAP, linked and produced in conjunction with the three county BAPs the Forest covers. Where the National Forest is located in Derbyshire the BAP reports its outcomes via the Lowland Derbyshire BAP.
- National Forest BAP - www.nationalforest.org/forest/nature/action/latest.php

These set out priority habitats and associated species that require protection. They have also set specific targets for the conservation and enhancement of existing habitats and future expansion of priority habitats.

The Derbyshire Landscape Character Assessment has identified, for each of the Landscape Character Types, the habitats that naturally occur in these areas and the potential for protection and expansion of these habitats.

This information can be used by a variety of interest groups including developers, planners, foresters and wildlife groups when considering the appropriateness of particular developments, woodland planting and habitat creation schemes in a specific area. The information is laid out in tabular form to represent BAP priority habitats in a particular landscape type. The description of the habitats should be read in conjunction with the relevant BAP Action Plan. The names and definitions have been tailored to meet the Derbyshire and Peak District situation. In some instances where there are close associations, several habitats have been grouped under one habitat title.

Habitat Descriptions

Woodland:

- **Deciduous Woodland**

  In this context Deciduous Woodland comprises of:

  - **Ancient Woodland** (Semi-natural and Plantations on Ancient Woodland Sites) which are remnants of the original forests that developed after the last glacial period 10,000 years ago through natural regeneration and have never been cleared, or have been re-planted.
  - **Secondary Woodland** which has been developed from natural colonisation within the last few centuries. Such woodlands tend to have fewer species of plants and animals than ancient woodland through lack of time for associated woodland species to colonise from surrounding woodlands or because they are isolated. However, sometimes where these woodlands occur next to ancient woodland, species diversity can be higher because of the connectivity between the two.
  - **Recently Planted Woodland** where the composition is at least 80% of native species.
  - **Upland Mixed Ashwoods** Ash is widespread on the heavier calcareous soils of the East Midlands. However, it is dominant only on steep dalesides in limestone areas. Due to gradual clearance for agriculture, the former extensive woodland cover of the White Peak has declined over many centuries to a point where virtually all ancient woodland is restricted to the steeper and more inaccessible dalesides. Upland ashwoods are amongst the richest habitats for wildlife in the uplands, supporting a wide range of wildlife of national importance. Former management by coppicing has left many sites with a lack of veteran trees and dead wood.
  - **Upland Oakwoods** are largely confined to the Dark Peak and Peak Fringe, associated with cloughs and valley-sides where it is the main woodland type, with particular concentrations along the valley of the River Derwent. Many oakwood sites contain small fragments of wet or ash woodland along flushes and on the lower slopes and clough bottoms. This woodland type, where it occurs in Derbyshire, is at the south-eastern edge of its British range. The interface between woodland and moorland is of particular wildlife and

landscape value, providing an important habitat for birds such as nightjar and tree pipit. In addition to their wildlife value, oak/ birchwoods are often of considerable landscape importance and ancient woodland sites in particular may show features of archaeological/historical significance such as charcoal pits.

- **Wet Woodland**

Wet woodland or Carr is woodland that has developed in a location where the water table is permanently high, mainly associated with floodplains and low-lying terraces or river systems. The dominant tree species found in wet woodlands are those that can tolerate poorly drained soils, such as crack willow, sallow, alder and birch.

- **Wood Pasture and Parkland**

This habitat has its origins in earlier landscapes such as medieval or hunting forests, deer parks, parks associated with large country houses or estates and old pastures or commons with trees on them. Trees in parklands are often a mixture of native species and species that were planted about 200 to 300 years ago when it was fashionable to collect exotic plants and landscape large gardens. The continual presence of veteran trees over many centuries in these situations has been vital for the survival of many rare dead wood invertebrate, moss, and lichen and fungi species, many of which are also associated with ancient woodlands.

- **Veteran Trees**

Trees can be considered veterans if they are exceptionally old for their species and have reached or passed their peak growth rate. Long-lived species such as oak and beech reach this point at around 150 - 200 years at the earliest. Veteran trees may be either indigenous or introduced species. Non-native tree species, if long-established, may support a flora or fauna which is different from native tree species, but which may be of equal or occasionally even greater ecological interest. Beech, sweet chestnut, horse chestnut and sycamore are commonly found in Derbyshire as well as our native species such as oak, ash, yew and small leaved lime. Britain has one of the highest percentages of veteran trees in Europe.

Veteran trees offer an important habitat in parklands, but are also valuable in the wider countryside, as concentrations of trees or as isolated individuals in hedgerows, woodland edges and some older churchyards. Veteran trees managed as pollards can even be found in open field situations, often as remnants of a previous parkland landscape.

Veteran trees are valuable for wildlife, especially birds, bats, invertebrates and fungi. Many of the species found on veteran trees are rare, endangered dead wood specialists, making veteran trees an important BAP habitat. Veteran trees are also of value historically, culturally, visually and are an integral part of the English landscape.

- **Traditional Orchards**

Traditional orchards are a group of fruit trees planted on permanent grassland. They have been planted in a wide variety of situations and soil types for the production of a range of fruits. Whilst of 'artificial' origin they support many features which make them of value for wildlife. Some orchards may have occupied the same piece of land for hundreds of years and undergone low intensity regimes of grazing and hay cutting. They are ideal places for grasses, wild flowers, lichens, mistletoe and insects, as well as birds and mammals.

Farmland:

- **Hedgerows**

A hedgerow is defined as any boundary of trees or shrubs over 20m long and less than 5m wide, provided that at one time the trees or shrubs were more or less continuous. It includes an earth bank or wall only where such a feature occurs in association with a line of trees or shrubs.

Older hedges tend to have a greater diversity of plants and animals due to their continuity in the landscape; they may have a greater number of tree and shrub species and can also have woodland ground flora species and ancient woodland indicator species growing within them. However, some species rich hedgerows are not necessarily always ancient. Younger hedges may be located next to ancient woodland so that colonisation may be easier. Modern planting can also often include a wide variety of species in hedgerow mixes. Late enclosure and more recent hedgerows were planted with very few species, dominated by hawthorn.

- **Field Margins**

The strip of land lying between cereal crops and the field boundary, extending for a small distance into the crop, can have a variety of species and features associated with it, depending on the agricultural operations in the field. Margins are important to wildlife because they protect boundary features, such as walls and hedges from agricultural operations. Field margins may also be remnants of former habitats, for example species rich

grassland. Margins are usually managed differently to the rest of the field and may contain important micro-habitats that act as wildlife corridors for species moving from one suitable habitat to another. They are important habitats for predator species that act as biological controls against many crop pests.

Grassland:

- **Lowland Meadows/ Neutral Grassland**

  These are unimproved, neutral grasslands traditionally managed for hay and pasture with an annual cut followed by low-intensity grazing. This removes excess nutrients, allowing many slower growing flowering species to thrive. These flower rich meadows were common up until the 1970s, when many were fertilised or re-seeded with more productive species such as rye grass. Hay meadows share many species with calcareous grasslands but growth tends to be more luxuriant on neutral grassland. Depending on the soil, lowland meadows can include a full range of species from calcareous to acid grassland species.

- **Calcareous Grassland**

  This type of grassland occurs on basic soils and substrates. This is often the most species rich type of grassland for both plants and animals. Thin soils and limited nutrients provide ideal conditions for flowering plants such as common rock-rose, wild thyme, lady's bedstraw and cowslip. A proportion of Derbyshire's calcareous grassland is located on the magnesian limestone, with a slightly drier, warmer climate mosses and lichens are rarer in this area than other calcareous areas and it attracts more southern, warmth loving species. Some species such as yellow wort and black horehound are exclusive to the magnesian limestone in Derbyshire.

- **Calaminarian Grassland**

  This is closely associated with the lead mining areas of Derbyshire. It has developed on soils rich in heavy metals, such as copper and lead. Vegetation succession is slowed by the toxicity of the minerals in the soil and these habitats are characterised by areas of bare ground and lead spoil heaps. Typical plants found on these areas include spring sandwort and alpine pennycress (both of which are known locally as 'leadwort') and mountain pansy.

- **Lowland Dry Acid Grassland**

  This type of grassland develops on acidic soils with pH 5.0 or lower or in areas where leaching has created acid conditions. Though relatively species poor compared to other semi-natural grassland types, it contains important communities with rare and characteristic species, including fine leaved bent and fescue grasses, sheep's sorrel, tormentil and heath bedstraw. Acid grasslands are transitional to other grassland types as well as other vegetation communities such as mires and heathland. It is especially important for ground nesting birds and invertebrates.

- **Floodplain Grazing Marsh**

  This refers to seasonally waterlogged low-lying grassland where the drainage is poor or impeded. Typical management may be grazing or cutting for hay or silage. They are often botanically poor but can support breeding waders such as snipe and lapwing, as well as invertebrates, amphibians, reptiles and mammals such as water voles. Sites may contain seasonal water-filled hollows and permanent ponds with emergent swamp communities and may abut with fen and reed swamp communities.

- **Rush Pasture**

  Rush pasture, grazed by livestock includes all wet grassland that occurs on more acid soils, in association with areas of impeded drainage, springs, flushes and small streams. These additional features are sometimes species rich, whilst rush pasture itself, a mix of grasses, rushes and sedges, sometimes has floristically rich pastures containing species such as devil's bit scabious and marsh bedstraw.

- **Inland Rock and Scree**

  The gritstone edges and boulder slopes of the Dark Peak provide an important habitat for a range of plant communities, including those rich in ferns, lichens and mosses. The inaccessible crevices and ledges are used as nesting sites for birds such as peregrines and ravens. The limestone cliffs found in many of the limestone dales support very variable vegetation types on the ledges and within rock crevices. The cliffs support perhaps the most natural type of vegetation, through their inaccessibility. They are rich in a variety of rare vascular plants, lichens, mosses and liverworts. Limestone screes are commonly found on the dalesides, often at the foot of cliffs. They support a restricted flora mostly of specialist plants including the nationally scarce limestone fern and dark-red helleborine.

Heathland:

Heathland usually develops on low nutrient status soils but is also defined as occurring on peaty soils where the peat is less than 0.5m thick. Vegetation is at least 25% dwarf shrubs, predominantly heather, western gorse, bilberry and bell heather with other species such as sheep's sorrel, heath bedstraw and tormentil interspersed. Oak and birch scrub is also often present. If left unmanaged heathland would quickly revert to woodland and scrub. A management regime of rotational cutting and controlled burning together with low intensity grazing is used.

There are two types of heathland in Derbyshire:

- **Upland Heathland**
  - Upland heathland or moorland lies above 250m.
- **Lowland Heathland**
  - Is on land below 250m.

Wetland:

- **Rivers and Streams**

This habitat includes rivers, streams, brooks and oxbow lakes. The habitat includes the water body and also the surrounding marginal and adjacent land including floodplain. These habitats include a variety of flow patterns such as riffles, runs, glides, pools and marginal deadwater and provide for species such as otters, water voles and white-clawed crayfish. Species composition of rivers and streams depends on the underlying rock. The rivers and streams on the gritstone and more acid rocks have different species associated with them than those on limestone. Rivers on limestone do not always flow on the surface all year round, but flow through underground courses dissolved in the rock.

- **Standing Open Water, Canals and Ponds**

Standing waters are water bodies that, except for in high periods of rainfall or when water is needed for power or supply purposes, has no through flow. These include natural and man made standing waters. Reservoirs, ponds, lakes, canals, ditches with open water for the majority of the year and open water bodies created through mineral extraction or gravel workings are all standing open waters that occur throughout Derbyshire. The habitat includes land around the edges of the water body, including land associated with canals including towpaths, bridges and hedgerows. Canals are included in this habitat type, even though there is a slight flow in most working canals with the use of locks. Standing open waters are important for a number of plants and animals that require a stable water environment for growth, feeding, breeding and over-wintering purposes.

- **Reedbeds**

Reedbeds are a special type of swamp, dominated by large dense stands of common reed, (Phragmites australis), but can support areas of open water, ditches, wet grassland and wet woodland. The water table has to be at or above ground level most of the year for this vegetation community to be maintained. Reedbeds are one of the most important habitats for the diversity of rare breeding birds, such as bittern, marsh harrier and bearded tit, in the UK.

- **Lowland Fens**

Fens are a type of mire, or are peatlands that receive water and nutrients from soil, rock, and groundwater as well as from rainfall. The ground is periodically or permanently waterlogged by high rainfall, lateral flow or are affected by a high groundwater table. For fens the main source of water is from groundwater. Most fens are species rich. In Derbyshire this habitat occurs within river valley corridors with marsh marigold, ragged robin, lady's smock and tall herbs including wild angelica and meadowsweet. These habitats are also important for wading birds and invertebrates.

Brownfield Sites:

- **Open Mosaic Habitats**

Brownfield Sites are sites which have previously been altered by human activity, such as derelict areas in towns and cities, brick-pits, old railway lines, airfields and quarries, and are either abandoned or underused. The previous disturbance and often thin soils of low nutrient content allow a range of flora species to colonise, often developing a wide variety of habitats on one site. Within Derbyshire these are most prevalent in landscapes associated with past industrial activity, such as the Nottinghamshire, Derbyshire and South Yorkshire Coalfield. Due to the previous land use and heavy artificial input these habitats often do not reflect the underlying landscape character, are not a natural occurrence and therefore can not be identified against particular landscape character types. However, these habitats are important and should be maintained in situ wherever possible, especially where it contributes to a wider network linking key habitats.

Primary Habitat—prominent and key characteristic	P
Secondary Habitat—variable and local characteristic	S
Locally Significant—unusual, often a minor characteristic	L
Not Applicable	-

Habitat Types	Landscape Types: Dark Peak					White Peak				Derbyshire Peak Fringe and Lower Derwent						Nottinghamshire, Derbyshire and Yorkshire Coalfield							Southern Magnesian Limestone		Needwood and South Derbyshire Claylands					Trent Valley Washlands			Melbourne Parklands				L & SDC	Mease/ Sence Lowlands	
	Open Moors	Enclosed Moorland	Moorland Fringe	Settled Valley Pastures	Riverside Meadows	Plateau Pastures	Upland Limestone Pastures	Limestone Slopes	Limestone Dales	Enclosed Moors and Heaths	Wooded Slopes and Valleys	Wooded Farmlands	Gritstone Heaths and Commons	Settled Farmlands	Riverside Meadows	Wooded Hills and Valleys	Coalfield Village Farmlands	Estate Farmlands	Wooded Farmland	Coalfield Estatelands	Plateau Estate Farmland	Riverside Meadows	Limestone Farmlands	Limestone Gorges	Settled Farmlands	Settled Plateau Farmlands	Sandstone Slopes and Heaths	Estate Farmlands	Riverside Meadows	Lowland Village Farmlands	Wet Pasture Meadows	Riverside Meadows	Estate Farmlands	Wooded Estatelands	Sandstone Slopes and Heaths	Riverside Meadows	Coalfield Village Farmlands	Village Estate Farmlands	Riverside Meadows
Woodland:																																							
Deciduous Woodland	-	-	L	P	-	S	-	S	P	-	P	P	-	-	-	P	S	S	P	P	P	-	P	P	-	S	-	S	-	S	-	-	P	P	P	-	S	S	-
Wet Woodland	-	-	-	P	P	-	-	-	P	-	P	P	-	S	P	P	S	P	P	P	S	P	-	P	S	-	-	S	P	S	-	P	S	P	-	P	P	P	P
Wood Pasture & Parkland	-	-	-	-	-	-	-	-	-	-	-	P	-	S	-	-	S	P	S	P	P	-	S	-	S	S	-	P	-	-	-	-	P	P	-	-	S	S	-
Veteran Trees	-	-	-	P	-	-	-	-	-	-	P	P	-	P	-	P	P	S	P	P	P	-	-	-	P	P	S	P	-	S	-	-	P	P	S	-	P	S	-
Traditional Orchards	-	-	-	L		L	-	-	-	-	L	L	-	L	-	L	L	L	L	L	L	-	L	-	L	L	-	L	-	L	-	-	L	L	-	-	L	L	-
Farmland:																																							
Hedgerows	-	-	-	P	-	-	-	-	-	-	P	P	-	P	-	P	P	S	P	P	S	-	P	S	P	P	P	S	-	S	S	-	S	S	P	-	P	P	-
Field Margins	-	-	-	-	-	-	-	-	-	-	-	S	S	S	-	-	S	P	S	S	P	-	P	-	S	S	-	P	-	P	P	-	P	S	-	-	S	P	-
Grassland:																																							
Lowland Meadows/ Neutral Grassland	-	-	-	P	P	S	S	S	S	P	P	P	P	P	P	P	P	S	P	P	S	P	-	S	P	P	-	S	P	P	P	P	S	P	-	P	P	P	P
Calcareous Grassland	-	-	-	-	-	P	P	P	P	-	L	-	-	-	-	-	-	-	-	-	-	-	P	P	-	-	-	-	-	-	S	-	-	-	-	-	-	-	-
Calaminarian Grassland	-	-	-	-	-	L	L	L	L	-	L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lowland Dry Acid Grassland	-	P	P	S	-	-	-	-	-	P	S	S	P	-	-	S	S	S	S	-	S	-	-	-	S	S	P	S	-	-	-	-	P	P	P	-	S	-	-
Floodplain Grazing Marsh	-	-	-	-	P	-	-	-	S	-	-	-	-	-	P	-	-	-	-	-	-	P	-	P	-	-	-	-	P	-	P	P	-	-	-	P	-	-	P
Rush Pasture	S	P	P	P	P	-	-	-	-	P	P	S	-	S	P	-	S	-	S	S	-	P	-	-	S	S	-	S	P	-	P	P	-	S	-	P	S	-	P
Inland Rock and Scree	L	L	S	-	-	L	S	L	S	L	L	-	-	-	-	-	-	-	-	-	-	-	L	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Heathland:																																							
Upland Heathland	P	P	P	-	-	-	-	-	-	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lowland Heathland	-	-	-	-	-	-	-	-	-	-	-	-	P	-	-	-	-	-	-	-	-	-	-	-	S	S	P	S	-	-	-	-	P	-	P	-	-	S	-
Wetland:																																							
Rivers and Streams	-	S	-	P	P	-	-	S	P	S	P	P	-	-	P	P	P	P	P	P	S	P	P	P	P	-	-	S	-	S	-	P	S	P	S	P	P	P	P
Standing Open Water, Canals and Ponds	-	-	-	P	P	-	-	-	P	-	S	P	-	S	P	S	P	S	P	P	-	P	S	S	P	S	-	-	-	S	P	P	S	P	S	P	P	S	P
Reedbeds	-	-	-	P	P	-	-	-	-	-	S	S	-	-	P	S	S	-	S	S	-	P	-	S	L	-	-	S	-	-	-	P	-	-	-	P	S	-	P
Lowland Fens	-	-	-	S	P	-	-	-	S	-	-	S	-	S	P	-	-	-	-	L	-	P	L	L	S	-	L	L	-	-	P	P	-	S	-	P	-	-	P

L & SDC—Leicestershire and South Derbyshire Coalfield

The Landscape Character of Derbyshire

HABITATS CHARACTERISTIC AND APPROPRIATE WITHIN EACH LANDSCAPE CHARACTER TYPE

PART FOUR - USING LANDSCAPE CHARACTER AS A SPATIAL FRAMEWORK

Introduction

When the 'Landscape Character of Derbyshire' was published in 2003, it played a major role in the formulation of landscape policy across the county at both the county and district/borough scale. In recent years, there has been a shift in planning policy requiring further interpretation of strategic landscape planning to help inform where development should or should not take place, or to target landscape in need of enhancement.

The holistic and spatial nature of landscape character assessment makes it a useful tool for the analysis of other environmental data. Increasingly, landscape character assessments are contributing to a range of strategic planning considerations including the allocation of land for new development and providing an environmental evidence base for emerging Local Plans. In this context, Derbyshire County Council has utilised the landscape character assessment to evaluate other known environmental data across the county. Two key pieces of work informed by this approach are the mapping of 'Areas of Multiple Environmental Sensitivity' (AMES) and 'Tranquillity'.

Areas of Multiple Environmental Sensitivity (AMES)

A methodology has been developed which allows for a strategic overview of the environmental sensitivity of the county outside the Peak District National Park; the National Park's sensitivity is considered to be reflected by its designation. AMES are broad areas of landscape that have been identified as being sensitive with respect to a range of environmental datasets. The areas have been defined using the Derbyshire landscape character assessment as a spatial framework for reviewing data relating to biodiversity, the historic environment and visual unity.

In general terms those landscapes of highest sensitivity to change will be the areas where the landscape remains intact, both visually and structurally, has strong historic and cultural identity, and contains many widespread semi-natural habitats with associated linkages appropriate to the character of the area.

Method

The methodology developed utilised data relating to three broad areas; biodiversity, the historic environment and visual unity, i.e. the 'intactness' of the landscape.

Biodiversity data used in the study relates to all spatial ecological data held or accessed by Derbyshire County Council ranging from international and national designations such as SSSIs and Ancient Woodland, to Local Wildlife Sites as recorded by the Derbyshire Wildlife Trust.

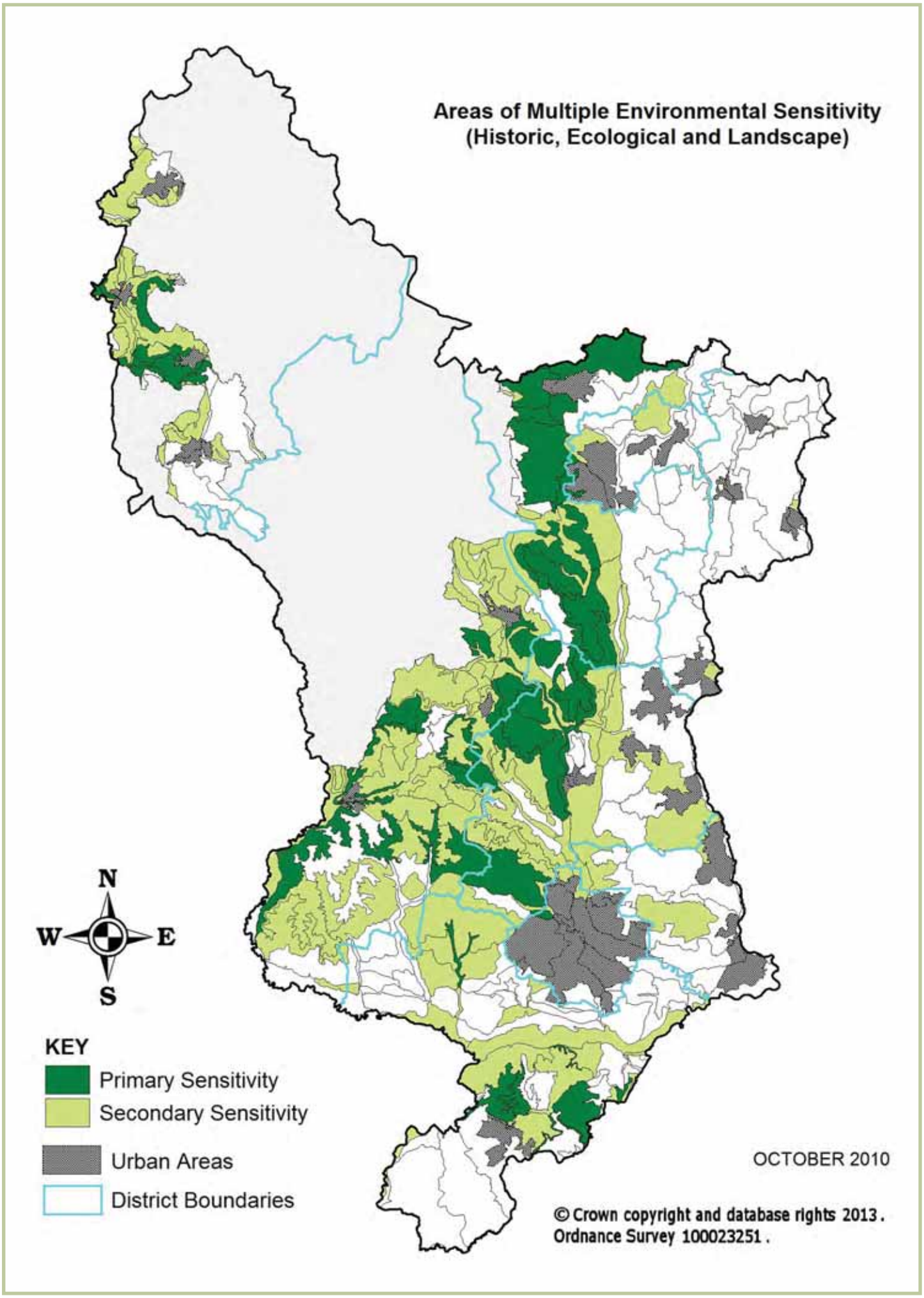
Historic data is taken from the Historic Landscape Character Assessment and the Historic Environment Record (HER) to reflect historic features that are considered to be most sensitive to change and almost impossible to replicate. In Derbyshire, this has focused on areas of ancient or early enclosure patterns, historic parkland and Scheduled Monuments.

Visual Unity is data recorded in the field as part of the Derbyshire landscape character assessment and is an overall measure of the 'intactness' of the landscape relating primarily to field enclosure pattern, and trees and woodland.

A detailed methodology is included as Technical Support Document 1: Areas of Multiple Environmental Sensitivity available on the Derbyshire County Council's website at www.derbyshire.gov.uk

Analysis

Brought together the data analysis defines 'AMES'; areas of landscape that are sensitive to change. Areas that are above average with respect to all three environmental datasets are described as having 'Primary Sensitivity' and will be most sensitive to change. These areas are considered to be a cultural resource on multiple fronts that provide significant value for green infrastructure (GI) and should be given important consideration for future strategic planning. In the context of the European Landscape Convention, these areas are likely to attract a strong focus on the protection (conservation) of their environmental assets.


Areas of Multiple Environmental Sensitivity
(Historic, Ecological and Landscape)
N
W
E
S
KEY
Primary Sensitivity
Secondary Sensitivity
Urban Areas
District Boundaries
OCTOBER 2010
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Ordnance Survey 100023251.

Areas that are above average with respect to two of the environmental datasets (e.g. biodiversity + visual unity, etc) are described as having 'Secondary Sensitivity'. These areas are sensitive to change but may also be capable of being enhanced by development or new GI provision. These areas will attract a strong focus on the management (conservation and enhancement) of their assets.

Those areas that fall out of the above categories are defined as the least sensitive. These are the areas that have the potential to accommodate more change and, in particular, change that can help to deliver a range of environmental benefits which will provide strategic GI and bring about enhancements for landscape character and local distinctiveness. As such, these areas would benefit from a forward looking planning (restoration/ creation) strategy. This does not mean that these areas are without environmental value and development proposals will still require the preparation of appropriate site assessments.

Those areas of multiple environmental sensitivity, expressed as primary and secondary sensitivity, can be used for a number of strategic planning purposes including the targeting of environmental grants and guiding decisions on the allocation of large scale development. The strength of this approach is that the National Character Area can remain as the overarching delivery unit but with clear links to the more detailed Derbyshire landscape character assessment.

Tranquillity Mapping

Tranquillity of the English countryside is recognised by the majority of people as one of its most important qualities and makes a significant contribution to the enjoyment of an area. It is important for our mental and physical well-being, and improves our quality of life. It is a key factor in maintaining the rural economy, being one of the main reasons why people head for the countryside to 'get away from it all'. As such, tranquillity continues to be recognised as an important consideration of the planning system and features in the National Planning Policy Framework at paragraph 123:

> 123. Planning policies and decisions should aim to:
> - Identify and protect areas of tranquillity which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason.

Much of the work relating to tranquillity and the identification of tranquil areas has been undertaken by the Campaign to Protect Rural England (CPRE) culminating in its Tranquillity Mapping: Developing a Robust Methodology for Planning Support (2008) publication. Utilising a Geographical Information System (GIS) each 500m by 500m square of England was given a tranquillity score, based on 44 different factors which add to or detract from people's feelings of tranquillity. This data was used as the basis for assessing the relative tranquillity of Derbyshire outside the Peak District National Park.

Information relating to the CPRE tranquillity work is available at www.cpre.org.uk.

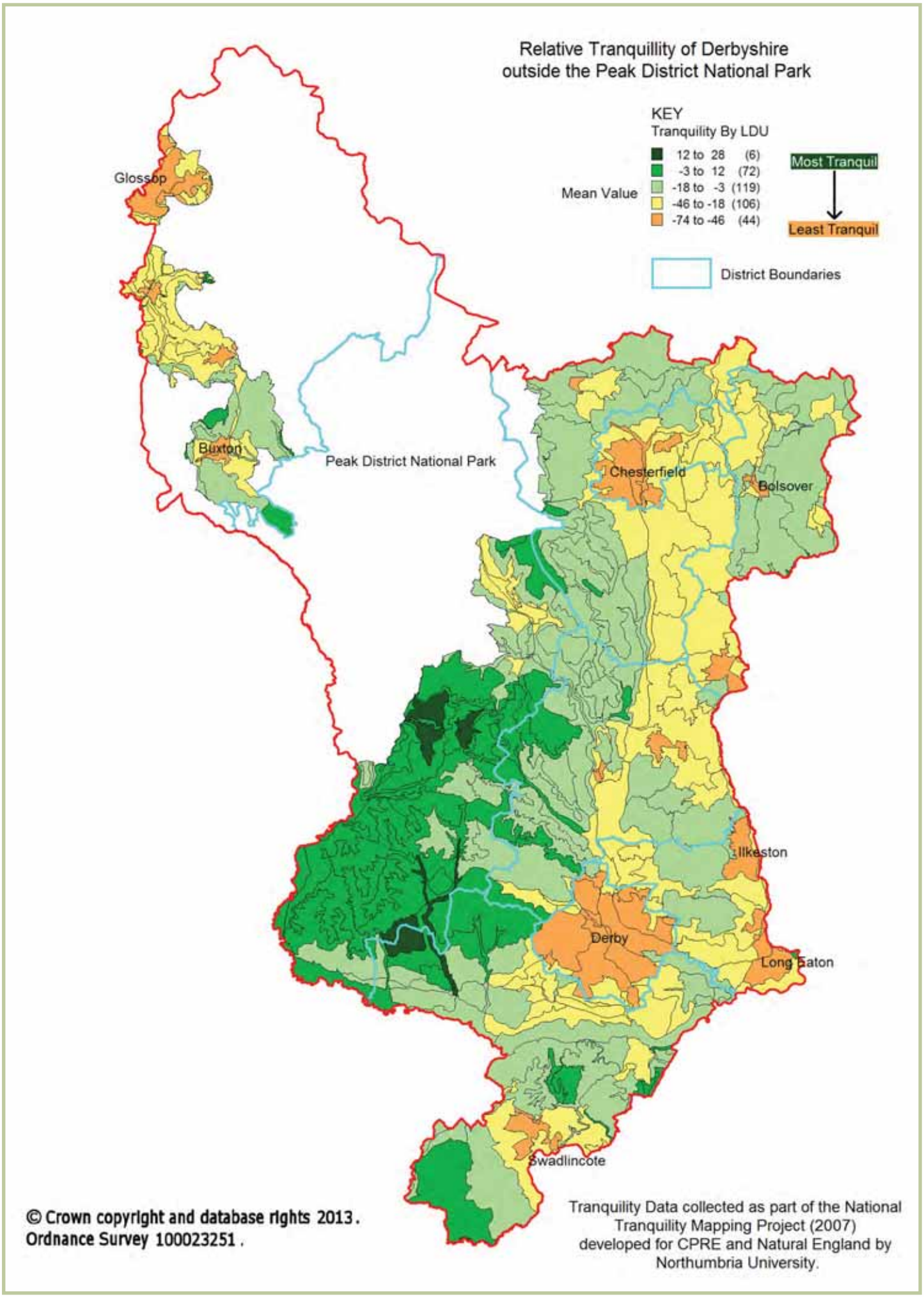
Method

Whilst the CPRE work provides a broad overview of tranquillity at a national scale, the spatial context (500m x 500m squares) is quite arbitrary and lacks a landscape context; the medium within which tranquillity is appreciated by people. Having clipped the national dataset to the county boundary (excluding the area covered by the Peak District National Park), again utilising a GIS, the Derbyshire landscape character assessment was used as a spatial framework for mapping the relative tranquillity of the county.

A full methodology is provided in Technical Support Document 2: Tranquillity available on the Derbyshire County Council website at www.derbyshire.gov.uk.

Analysis

The data analysis provides a map of the relative tranquillity of Derbyshire outside the Peak District National Park. The CPRE dataset has become an accepted record of current national tranquillity and this methodology simply builds on this work by applying it to a spatial framework developed around landscape characterisation. It is intended that this work will become an evidence base for policy makers across the county to help find ways to protect and enhance our most tranquil areas. The strength of this methodology is that it reinforces a spatial approach to the evaluation of other environmental datasets. This allows for a composite of environmental values to be assigned to the same spatial unit helping to identify those areas of landscape that are most sensitive to change for a range of considerations.


Relative Tranquillity of Derbyshire
outside the Peak District National Park
KEY
Tranquility By LDU
Mean Value
12 to 28 (6)
-3 to 12 (72)
-18 to -3 (119)
-46 to -18 (106)
-74 to -46 (44)
Most Tranquil
Least Tranquil
District Boundaries
Glossop
Buxton
Peak District National Park
Chesterfield
Bolsover
Ilkeston
Derby
Long Eaton
Swadlincote
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Ordnance Survey 100023251.
Tranquility Data collected as part of the National
Tranquility Mapping Project (2007)
developed for CPRE and Natural England by
Northumbria University.

PART FIVE – MONITORING LANDSCAPE CHANGE

Introduction

The Landscape Character of Derbyshire aims to underpin the objectives of the European Landscape Convention (ELC) to further strengthen the protection, management and planning of the landscape. A key component in addressing the success of these aims will be to develop a method to monitor landscape change and help involve people in understanding this change (Articles 5, 6A-D).

Monitoring landscape change is not an easy concept to deliver given the scale of the resource. At the national level, attempts to monitor landscape change have been delivered through initiatives such as Countryside Quality Counts (CQC), which looks at landscape change in the context of National Character Areas. Using various national datasets this review monitors landscape change in the context of four potential outcomes:

- Maintained – stable and consistent with character/vision
- Enhancing – changing and consistent with character/vision
- Neglected – stable but inconsistent with character/vision
- Diverging – changing but inconsistent with character/vision

The CQC project goes on to recommend that landscape change should be monitored on a 5 year cycle.

At the county scale, the CQC approach is clearly too broad and difficult to understand by people outside the relevant professions. In the context of this review, it is proposed to monitor landscape change using fixed point photography on a 5 yearly cycle. As this is a 10 year review, the opportunity already exists to review viewpoints identified in the original document to record the change to the landscape that has taken place as well as identifying new locations where there are known pressures for change that can be monitored into the future.

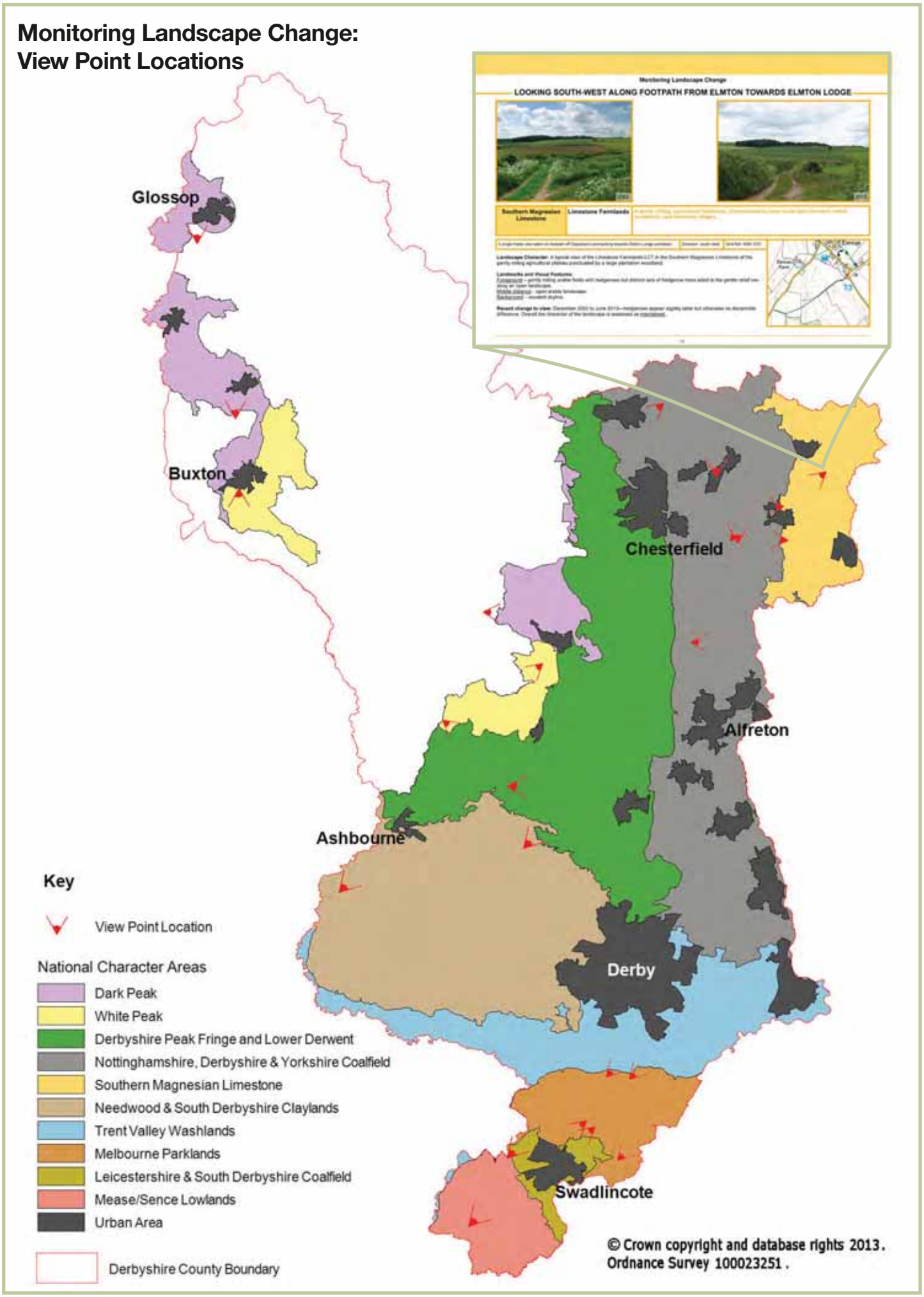
Method

The fixed point photography has identified a number of viewpoints across the county. As stated, some of these viewpoints are the same as those chosen in the first edition of the document and, as such, allow for the monitoring of landscape change since it was published. Others are new locations often taken from elevated vantage points that allow for broad panoramic views over large areas. These views may reflect a number of landscape character types and are often selected in anticipation of known pressures for change.

Photos used from the original publication were taken during 2003 with the subsequent photos taken in 2011. Where a photograph is taken from the position of one of the original photographs, the two are shown side by side to demonstrate the changes that have taken place in the interim period. Photographs from new locations are shown individually with a description of the current view.

It is proposed that the exercise will be repeated every 5 years to monitor landscape change to provide feedback for the planning process and help inform future training requirements. The fixed point photography view points and descriptions can be seen in Technical Support Document 3 at www.derbyshire.gov.uk.

Monitoring Landscape Change: View Point Locations



PART SIX - CASE STUDIES IN THE APPLICATION OF LANDSCAPE CHARACTER

Introduction

Since 'The Landscape Character of Derbyshire' was first published in 2003, there have been many examples where new development across the county has successfully applied the principles of landscape characterisation. When these principles have been applied it follows that development is generally more successful in contributing to the European Landscape Convention objectives of 'Protection', 'Management' and 'Planning' of the landscape resource.

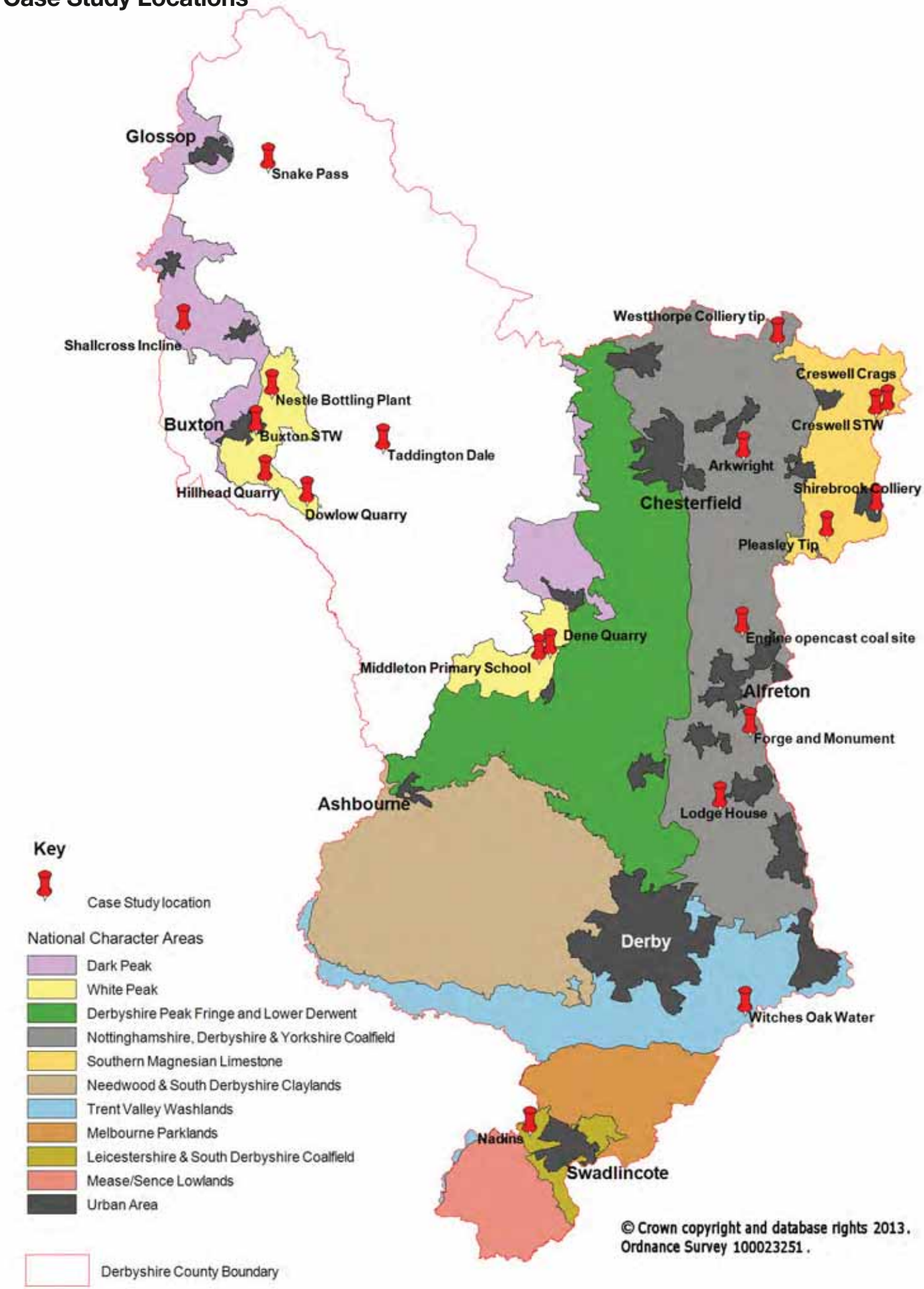
In order to continue the promotion of good design, this section of the document highlights best practice through the use of case studies. The main case studies highlight large strategic developments that have used a range of landscape characteristics in their design to successfully integrate the site with its surrounding context and mitigate against any adverse effects associated with the development.

Other case studies have been included as good examples that address key characteristics or local distinctiveness under the headings of:

- Geology and landform
- Soils and land-use
- Ecology
- Tree cover
- Enclosure
- Transport
- Built environment

It is intended that this section should be used as a guide to design quality and provide pointers to the appropriate considerations that need to be made to achieve a successful development.

Case Study Locations



Dowlow Quarry, Sterndale Moor, Buxton

White Peak: Plateau Pastures

A gently rolling, upland limestone plateau characterised by nucleated villages, dry stone walls, a pastoral land-use and open, expansive views

Dowlow Quarry is a large limestone quarry located adjacent to the A515 to the south-east of Buxton.

Design Considerations

The principle design considerations were how to accommodate a large quarry waste tip within an essentially open landscape, use the tip positively to help mitigate against the adverse visual impacts associated with a large modern quarry, and restore the tip so that it sits sympathetically within the surrounding landscape character.

Key Characteristics Employed in the Design

- Remodelling the tip to create a gently rolling landform
- Spreading of soils to establish a pastoral land-use
- Enclosure of the tip using dry stone walls allowing the grassland to be managed by sheep grazing
- Planting of small-scale plantation woodland to help break up the tip landform and add to the visual mitigation of the quarry

Gently rolling landform

Pastoral land-use enclosed by dry stone walls

Small plantation woodland

Tip managed by sheep grazing

Dene Quarry, Cromford

White Peak: Limestone Slopes

A landscape of small, nucleated limestone villages and dispersed farmsteads nestling within moderate to steeply sloping limestone slopes. Distinctive dry stone walls enclose former open fields and semi-regular fields with a pastoral land use

Before and after - Face and bench restoration creating roll over slopes and calcareous grassland.

Turf translocation to protect important grassland habitat

Dene Quarry is a modern limestone quarry near Cromford being restored in phases to assimilate the site with the surrounding landscape character and reduce visual impacts.

Design Considerations

The principle design considerations include the reshaping of the landform to minimise the visual impact associated with a large modern quarry, the introduction of appropriate landscape features, establishing a sustainable land use, and creating habitats that link to the adjoining Site of Special Scientific Interest (SSSI).

Key Characteristics Employed in the Design

- Upper quarry bench remodelling to create ‘rollovers’ - gently rolling fields enclosed by dry stone walls
- Leaving some quarry faces as limestone outcrops
- Managing small shelter belt plantations
- Turf translocation of calcareous species rich grassland
- Repair of isolated field barn and historic lime kiln
- Removal of tipped material to reveal the former dale (Dene) and reuse the material for restoration elsewhere
- Repair of traditional dry stone walls

Before and after - Restoration of lime kiln and barn

Dry stone wall repairs

Shirebrook Regeneration Scheme

Southern Magnesian Limestone: Limestone Farmlands

A gently rolling, agricultural landscape, characterised by large scale open farmland, estate woodlands and limestone villages

The Shirebrook Regeneration Scheme involves the reclamation of the former Shirebrook Colliery buildings, yard and tips for economic redevelopment.

Design Considerations

The principle design considerations were how to accommodate a large industrial redevelopment within an essentially open landscape, use the tips positively to help mitigate against the adverse visual impacts on Shirebrook Town Centre, restore the tip so that it sits sympathetically within the surrounding landscape character and introduce features and habitats within the development that accord with the established character of the wider landscape, as part of an enhanced Green Infrastructure.

Key Characteristics Employed in the Design

- Former tips remodelled to reflect a gently rolling landform
- Large scale woodland planting with some coniferous species to reflect estate woodland
- New hedgerows with hedgerow trees used as boundaries within the site
- Creation of calcareous grassland to meet Biodiversity Action Plan targets

Gently rolling landform

Large scale woodland planting

Hedgerow boundary

Creation of calcareous grassland for Dingy Skipper butterfly

Creswell Crags, Creswell

Southern Magnesian Limestone: Limestone Gorges

Incised river corridors, characterised by steep rocky cliffs, overhanging woodland and grazed meadows

Reinstated scree slopes

Locally distinctive dry stone walls

Crushed magnesian limestone surfacing and simplified access arrangement

Retention of exposed geology adjacent to new road with species rich grass verge

Creswell Crags is one of the natural valleys carved through the magnesian limestone plateau to the east of Creswell that defines the Limestone Gorges Landscape Character Type and is subject to a bid for World Heritage Site status.

Design Considerations

The principle design considerations were how to reinstate the natural character of the area following the relocation of the highway from the gorge, accommodating the new road in the surrounding landscape, improving access to the site for visitors and introducing locally distinctive features that enhance landscape character.

Key Characteristics Employed in the Design

- Reinstatement of scree slopes at base of rocky cliffs
- Localised use of dry stone walls adjacent to settlement
- Use of crushed limestone surfacing and reduced access clutter
- Retention of exposed geology adjacent to road

Witches Oak Water, Shardlow

Trent Valley Washlands: Riverside Meadows

Broad flat floodplains, containing meandering rivers and streams with scattered trees along riverbanks. A pastoral landscape of generally large hedged fields with trees scattered along boundaries

Witches Oak Water is a former sand and gravel quarry near Shardlow, adjacent to the A50.

Design Considerations

The principle design considerations were how to restore the site given the lack of fill material to return it to agriculture, how to visually integrate large open waterbodies, enhancing the site for wildlife, whilst facilitating the site owners requirement to retain the site for long term water storage.

Key Characteristics Employed in the Design

- Remodelling of water bodies to create a more natural organic shape with shallow margins
- Planting of marginal vegetation including reed beds
- Use of scattered watercourse trees to emphasis the line of the River Trent
- Re-planting of thorn hedgerows to create a traditional green lane crossing the floodplain
- New wet woodlands to screen large open water bodies and providing additional habitat

Newly created reed beds

Established reed beds

New hedgerows adjacent to green lane

Wet woodland adjacent to lakes

Geology and Landform

A57, Snake Pass

Dark Peak: Open Moors

A Derbyshire County Council highway improvement scheme in the Peak District National Park slackened road bends leaving exposed sandstone, natural rock bluffs and verges which were restored with patches of local moorland grasses and heather.

Westthorpe Colliery Tip, near Killamarsh

Nottinghamshire, Derbyshire and Yorkshire Coalfield: Wooded Hills and Valleys

As part of the Park Brook surface mining scheme the former Westthorpe Colliery tip was re-graded to create a landform that responded to the broadly undulating topography of the wider landscape and allowed for the opening up of the Park Brook, which was previously in culvert under the tip.

Engine, Former Opencast Coal Site, near Blackwell

Nottinghamshire, Derbyshire and Yorkshire Coalfield: Coalfield Village Farmlands

The restoration of the Engine Opencast Coal site near Blackwell provided the opportunity to revisit a former mineral railway branch line that had been partially restored in the1980s leaving an artificial and unsympathetic landform. High railway embankments were removed and land remodelled, reinstating the flat floodplain, to allow Normanton Brook to return to its former meandering course. The scheme reinstated gentle valley slopes and provided the opportunity for planting small woodlands, streamside and hedgerow trees.

Soils and Land-use

Arkwright, Former Opencast Coal Site, east of Chesterfield

Nottinghamshire, Derbyshire and Yorkshire Coalfield: Estate Farmlands

Prior to opencast coaling, large parts of the site comprised of unrestored colliery spoil tips and disused railway lines. Existing soils were replaced to restore an appropriate mixed farming land-use with a semi-regular field pattern, whilst medium to large scale woodland and low fertility, species-rich grasslands were created where soil cover was more limited.

Shirebrook Regeneration Scheme

Southern Magnesian Limestone: Limestone Farmlands

Agricultural soils and subsoils stripped as part of the tip remediation work were reapplied to the finished tip to provide different soil conditions for woodland planting and habitat creation. Topsoil was applied to provide greater depth for tree growth whilst subsoils were applied to create nutrient deficient conditions to promote the establishment of calcareous grassland.

Ecology

Buxton Sewage Treatment Works

White Peak: Limestone Dales

Relocation of Buxton Sewage Treatment Works has led to the removal of the original filter beds and associated infrastructure, and allowed for the reinstatement of daleside, upland, ash woodland and the opening up of the previously culverted River Wye.

Nadins, Former Opencast Coal Site, near Swadlincote

Leicestershire and South Derbyshire Coalfield: Coalfield Village Farmlands

As part of the restoration of the Nadins opencast coal site, some former lagoons were reshaped to provide a pond for nature conservation. Sections of the berms between the lagoons were retained to create small islands and the edges were gently shelved to create seasonally flooded areas that support a range of marginal vegetation.

Tree cover

Buxton Sewage Treatment Works, Dukes Quarry

White Peak: Limestone Dales

At Buxton Sewage Treatment Works, amenity tree planting adjacent to the entrance using appropriate species has helped in screening the site from motorists and pedestrians using Duke's Drive. The use of dark recessive colours for the building and the extension of the dry stone wall further assimilate the building with its immediate context and contribute to local distinctiveness.

Forge and Monument Opencast Coal Site, west of Codnor

Nottingham, Derbyshire and Yorkshire Coalfield: Coalfield Estatelands

As part of the Forge and Monument surface mining scheme near Codnor, existing important woodland and historic landscape features were identified and protected during the works. This included the existing Foxholes Plantation, Forge Monument and the ruins of Codnor Castle.

Pleasley Pit Country Park

Southern Magnesian Limestone: Limestone Farmlands

The successful reclamation of the former Pleasley Colliery Tip has been achieved through large scale woodland creation characteristic of woodlands in the wider landscape. Extending the arable land-use up one flank of the tip, enclosed by hedgerows, further assists in integrating the site with the surrounding landscape.

Enclosure

Hillhead Quarry, near Harpur Hill, Buxton

White Peak: Upland Limestone Pastures

Restored limestone walls at Hillhead Quarry provide a locally distinctive boundary and enclose sheep grazing on bunds designed to screen views of the site, helping to reduce the residual impact of quarrying on the surrounding landscape and provide a sustainable land-use.

Lodge House Opencast Coal Site, Smalley

Nottinghamshire, Derbyshire and Yorkshire Coalfield: Coalfield Estatelands

Mature hedgerows affected by the surface mining scheme have been carefully excavated and translocated to donor sites immediately adjacent to the workings to bring about enhancements to the wider landscape and maintain an important ecological resource.

Transport

Shallcross Incline Greenway, Whaley Bridge

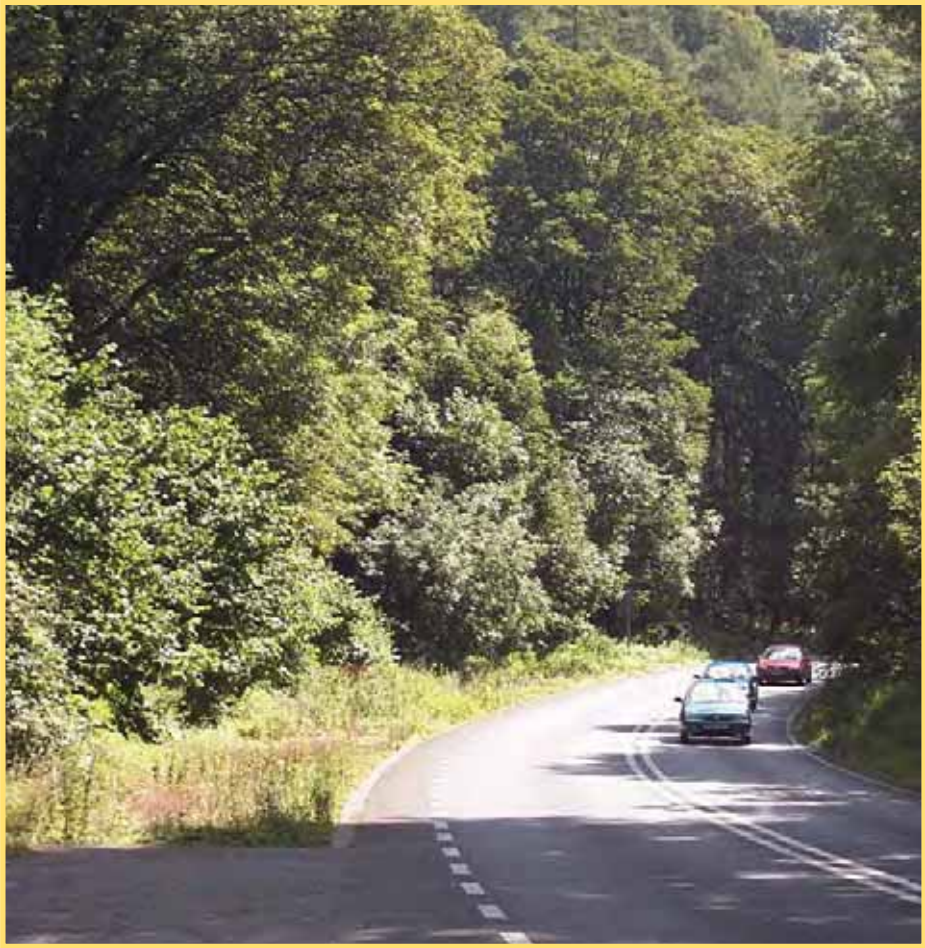
Dark Peak: Settled Valley Pastures

When the former railway line at Shallcross Incline was upgraded to a multi-user greenway, great care was taken to retain as many trees as possible to contribute to the wooded character of the wider landscape. Appropriate detailing of the access points using dry stone walls and simplified gates helps to reduce visual clutter and create a locally distinctive feature.

A6 Taddington Dale, near Buxton

White Peak: Limestone Dales

During the works, undertaken by Derbyshire County Council, to slacken the road bends along the A6 through Taddington Dale and create two arrester beds, great care was taken to minimise the disturbance to the existing ancient woodland. The verges were successfully reinstated using on-site rock debris and soils to promote the natural regeneration of local grasses and ground cover supplemented by small amounts of native woodland planting.



Built environment

Nestlé Waters Factory, Waterswallows, Near Buxton

White Peak: Plateau Pastures

An architecturally designed building using vernacular materials in a contemporary style with dark recessive colours has helped assimilate this large modern water bottling factory within this open and visually exposed landscape. Extensive swathes of grassland sweeping up to the building frontage help to link the site with the surrounding pastoral land-use.

Middleton-by-Wirksworth Primary School

White Peak: Plateau Pastures

This modern classroom extension at Middleton Primary School has been architecturally designed to complement the vernacular materials associated with the original school buildings. The exterior has been clad with cedar wood panels that with time will weather to take on the grey hues associated with the traditional limestone building materials. A grass roof has been used to visually integrate the building with the surrounding pastoral land-use and wooded backdrop to the site.

Creswell Water Treatment Works

Southern Magnesian Limestone: Limestone Farmlands

The use of vernacular building materials including pantile roof tiles for the new pumping station at Creswell and traditional boundary walls helps to reinforce local distinctiveness.

GLOSSARY OF TERMS

Aeolian deposits - a variety of deposits or sediments that are deposited by wind and consist of sand dust.

Alluvial - processes or materials associated with transportation or deposition by running water.

Alluvium - sediments deposited by running water of streams and rivers. It may occur on terraces well above present streams, on the present flood plains or deltas, or as a fan at the base of a slope.

Amenity trees - tree groups and small shelter belts associated with settlement.

Ancient woodland - woodland which has seen a continuous woodland cover since at least 1600AD and has been cleared only for underwood or timber production. It is an extremely valuable ecological resource, with an exceptionally high diversity of flora and fauna.

Assart - A piece of land cleared of trees and bushes by up-rooting, generally for cultivation.

Base-rich - generally neutral or alkaline soils with a high level of chemical bases, such as calcium or magnesium.

Blanket bog - upland peat bog formed under conditions of high rainfall.

Biodiversity Action Plan (BAP) - the UK government's plan for the protection and sustainable use of biodiversity, published in 1994.

Boulder clay - a deposit of clay, often full of boulders and unsorted material, (formed in and beneath glaciers and ice sheets).

Brown earth - soils displaying a sedentary nature, having been developed from in situ weathering of shale rock, whose sedimentary layering can be seen gradually weathering to soil within the subsoil horizon. Can be silty or loamy.

Carboniferous - late Palaeozoic period ranging from 360Ma to 295Ma.

Carr - marsh or fen woodland in waterlogged terrain. Trees commonly found are birch, willow and alder.

Clough - a small, steep-sided valley.

Coppicing - the traditional method of woodland management in which trees are cut near the ground to encourage the production of long, straight shoots. These can be subsequently harvested.

Croft - a distinct parcel of land, occupied and farmed during the medieval period. Usually associated with a small building (toft).

Dense or densely scattered – trees or woodland regularly occur in the landscape to form a prominent feature.

Discrete - separate, distinct, e.g. discrete summits.

Fissile - stone capable of being easily split along parallel planes.

Flash - a waterbody caused by mining subsidence.

Fluvioglacial - material deposited by glacial meltwaters.

Glacial till -surface material picked up and deposited by a glacier.

Gleyed soils - this is a soil condition resulting from prolonged soil saturation, manifest in the presence of blueish or greenish colouration or mottling through the soil mass. These soils are not productive, and are unable to hold nutrients for any period of time.

Hedgerow trees - trees that occur along a hedgerow, through self-regeneration, planting or management.

Humose - soil rich in organic material.

In-bye - enclosed land below the open moor, often surrounding farm buildings.

Iron Pan - a hard layer of precipitated iron salts.

Land cover - 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 surface.

Landscape - human perception of the land combined with knowledge and identity of a place.

Landscape Character - a distinct pattern or combination of elements that occurs consistently in parts of the landscape.

Landscape Character Type (LCT) - a generic term for landscape with a consistent, homogeneous character. They share common combinations of geology, topography, vegetation and human influences.

Land use - the primary use of the land, inclusive of both rural and urban activities.

Leys - land put down to grass or clover for a limited number of years.

Linear woodlands - those that tend to be long and narrow. Particularly associated with other linear features like rivers or steep valley sides. Wet woodland often has a linear character associated with the river corridor.

Loam - soil material that contains 7-27% clay, 28-50% silt and <52% sand.

Localised or Occasional – trees/ woodlands do occur but generally an open and unwooded landscape.

Marl - soft and unconsolidated calcium carbonate, usually mixed with varying amounts of clay or other impurities.

Mesozoic - an umbrella term for the Triassic (245Ma-208Ma), Jurassic (208Ma-146Ma) and the Cretaceous (146Ma-65Ma) periods.

Methodology - the specific approach and techniques used for a given study.

Millstone Grit Series - a coarse sandstone containing many quartzite pebbles, formed in the Carboniferous Namurian period.

Mitigate - measures, including any process, activity or design to avoid, reduce, remedy or compensate for adverse effects of a development on landscape.

Namurian - late Carboniferous stage ranging from 325Ma to 315Ma.

National Character Area - a unique geographic area with a consistent character and identity, defined by physical, natural and cultural influences. Often broad tracts of land at a national scale.

Nucleated - single focus within a parish with only occasional scattered farmsteads.

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 boundaries.

Open/unwooded or Unwooded - occurring in upland regions or along river corridors, where shallow soils, heavy waterlogged soil or management practices inhibit woodland growth.

Organic woodlands - those that tend to have irregular outlines, often associated with natural topographical features or field patterns that themselves have irregular shapes. These are woodland patterns associated with landscapes having a high percentage of ancient semi-natural woodland, often with early enclosures created by woodland assarts (i.e. fields created from woodland clearance).

Outcrop - the emergence of a stratum, vein or rock at the surface.

Palaeozoic - geological era ranging from 540Ma to 245Ma.

Periglacial - geological features associated with continuous (permafrost) or discontinuous (seasonal freezing) periods of sub-zero features.

Permo-Triassic - late Palaeozoic age ranging from 290Ma to 250Ma.

Plantation - planned woodland, often block shaped with a regular outline.

Poaching - breaking and compacting of waterlogged grassland by cattle trampling.

Podsolic - soils in which the soluble mineral and humus constituents have been dissolved and re-deposited lower down the profile. They are poor in nutrients and generally support heather type vegetation.

Pollarding - a traditional woodland management practice in which the branches of a tree are cut back every few years to encourage long, straight shoots for harvesting. Cuts are made at a sufficient distance from the ground to prevent the new shoots being eaten by animals.

Rankers - heavily leached soils which tend to be acidic, despite their association with limestone. They are characteristically stony and shallow.

Regular woodland - those with regular shaped outlines often associated with a planned landscape such as those associated with Parliamentary enclosure or estate ownership.

Relict - feature which has survived in its early form, e.g. woodland, parkland.

Ridge and Furrow - a landscape feature often formed by the ploughing of former open fields. Characterised by the alternate sequence of earthen ridge and furrow typically 6-7 metres from ridge to ridge.

Riparian - riverbank habitat.

Scattered – woodland is variable or sparsely occurring in the landscape to form a noticeable feature.

Scree - an accumulation of fragmented rock waste below a cliff or rock face, formed as a result of weathering. The rock waste typically forms a fan shaped scree slope of a concave shape. Devoid of vegetation.

Seatearth - the layer of sedimentary rock underlying a coal seam.

Selion strip - systems of medieval land plots used for arable farming in which oxen were used for ploughing. Characterised today by reversed 's' shaped field boundaries reflecting the turning course of the oxen.

Semi-natural woodland - species rich woodland. Not necessarily ancient.

Shale - a fine grained sedimentary rock formed by the compaction of clay, silt or mud on the bottom of oceans, lakes and in deltas. Can be many different colours depending on chemical content.

Site of Special Scientific Interest (SSSI) - the country's very best wildlife and geological sites.

Thinly scattered - woodland not a key characteristic but apparent in the larger scale.

Toft - place where a house stands or once stood, often adjoining a croft.

Treeless - occurring in upland regions where shallow soils, heavy waterlogged soil or management practices inhibit tree growth.

Triassic - early Mesozoic age ranging from 245Ma to 208Ma.

Typical woodland size range - the typical size of a woodland within the landscape character type, also to be used for guidance in new woodland planting.

Vernacular - indigenous building style using local materials and traditional methods of construction and ornament, occurring or existing in a particular locality.

Watercourse trees - trees that occur along a stream or river.

Wet woodland - a rare woodland habitat that occurs on soils prone to waterlogging.

Widespread woodland - extending over a wide area to create a strongly wooded character.

Woodland pattern - the typical pattern of woodland within the landscape character type, also to be used for guidance in new woodland planting.

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Forestry Commission - Ash dieback disease (page 9)

Creswell Crags Heritage Trust - Aerial view of the gorge (part 1 - 5.3)

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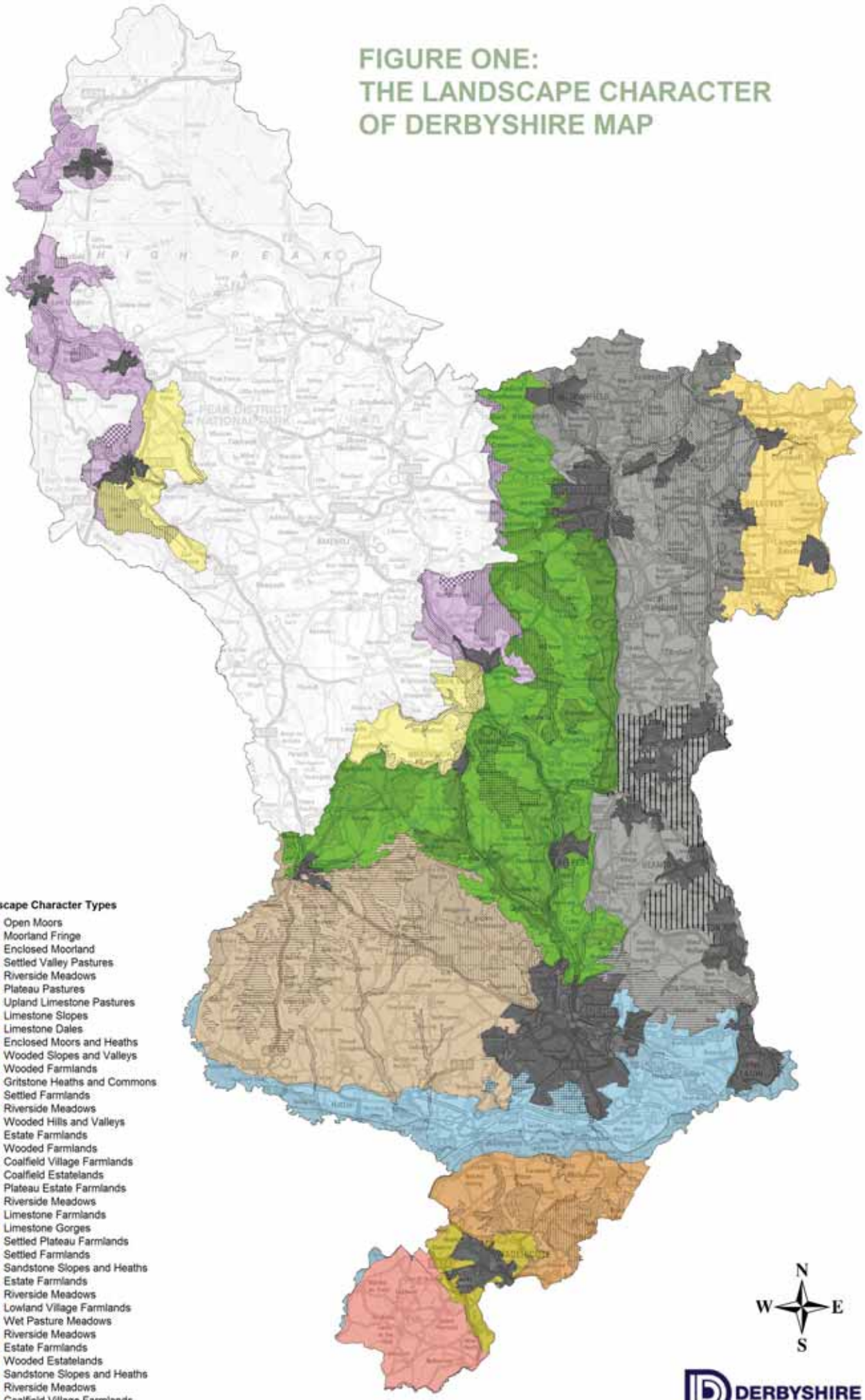
FIGURE ONE: THE LANDSCAPE CHARACTER OF DERBYSHIRE MAP



Key

National Character Area	Landscape Character Types
Dark Peak	Open Moors
	Moorland Fringe
	Enclosed Moorland
	Settled Valley Pastures
	Riverside Meadows
White Peak	Plateau Pastures
	Upland Limestone Pastures
	Limestone Slopes
	Limestone Dales
Derbyshire Peak Fringe and Lower Derwent	Enclosed Moors and Heaths
	Wooded Slopes and Valleys
	Wooded Farmlands
	Gritstone Heaths and Commons
	Settled Farmlands
	Riverside Meadows
Nottinghamshire, Derbyshire and Yorkshire Coalfield	Wooded Hills and Valleys
	Estate Farmlands
	Wooded Farmlands
	Coalfield Village Farmlands
	Coalfield Estatelands
	Plateau Estate Farmlands
	Riverside Meadows
Southern Magnesian Limestone	Limestone Farmlands
	Limestone Gorges
Needwood and South Derbyshire Claylands	Settled Plateau Farmlands
	Settled Farmlands
	Sandstone Slopes and Heaths
	Estate Farmlands
	Riverside Meadows
Trent Valley Washlands	Lowland Village Farmlands
	Wet Pasture Meadows
	Riverside Meadows
Melbourne Parklands	Estate Farmlands
	Wooded Estatelands
	Sandstone Slopes and Heaths
Leicestershire and South Derbyshire Coalfield	Riverside Meadows
	Coalfield Village Farmlands
Mease/Sence Lowlands	Village Estate Farmlands
	Riverside Meadows
	Urban

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