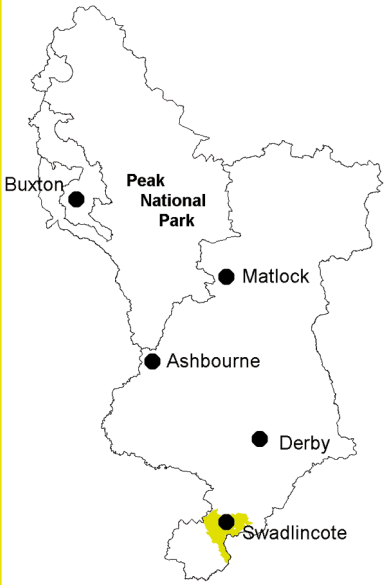
# LEICESTERSHIRE AND SOUTH DERBYSHIRE COALFIELD

## CHARACTER AREA 71

### A gently undulating landscape of shallow valleys and ridges dominated by mining and urban features




Location of Leicestershire and South Derbyshire Coalfield

**Landscape Character Types**

- Coalfield Village Farmlands

#### Introduction

The South Derbyshire Coalfield covers a relatively small area of south Derbyshire extending from Hartshorne in the north-east to Overseal in the south. Swadlincote now dominates the area where there has been extensive post-war development. In Derbyshire the Melbourne Parklands border the area to the north and the Mease/Sence Lowlands to the south.

The coal measure geology gives rise to an undulating landform with gentle ridges and shallow valleys. The landscape has a very open character, due in part to the lack of woodland, the scarcity of hedgerow trees and the relatively low cut hedgerows. 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 a very open and immature landscape, some of which has been allocated for further development.

Although mining and urban features dominate the landscape there are areas around Hartshorne that remain essentially rural. With the National Forest project covering the entire South Derbyshire Coalfield there 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 limited evidence of prehistoric or Roman occupation but references to heathland in place names throughout the area suggest that woodland was cleared at an early date in prehistory. Place names like Gresley indicate that there was significant woodland by the time the Anglo-Saxons moved into the area. The *'ton'* and *'worth'* ending to place names are evidence of their settlement. By 1086, and the Domesday Survey, the area was still sparsely populated.

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.

*Open cast coal mining*

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 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.

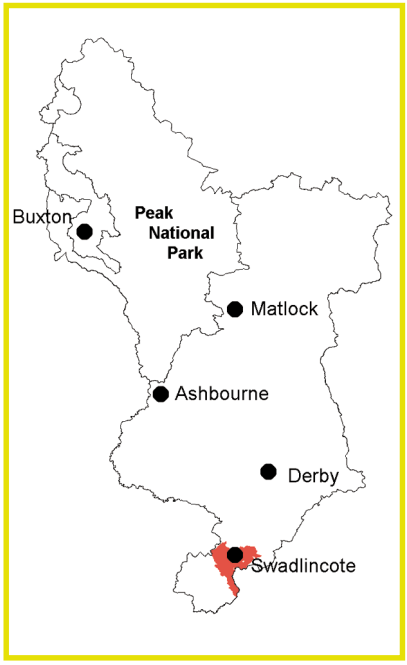
This Character Area lies within the National Forest and will be subject to large scale woodland planting allied to other landscape and nature conservation improvements.

**Other Considerations**

- The National Forest Strategy and BAP
- The Lowland Derbyshire BAP

# LANDSCAPE TYPE: COALFIELD VILLAGE FARMLANDS

**This is a broad, undulating, industrial landscape with many red brick mining settlements. A mixed farming landscape punctuated by sparsely scattered hedgerow trees, watercourses and the occasional small woodland.**




## 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 streamlines
- Scrub and secondary woodland on derelict ground and along rail and road embankments
- Several areas of relict parkland, and also common land, now enclosed and farmed
- Network of small irregular lanes between larger urban roads
- Red brick buildings with clay tile roofs
- Expansion of villages with red brick terraces, ribbon development and housing estates
- Widespread legacy of coal extraction, including spoil heaps, opencast sites and pit railways

### 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 open cast 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 rare 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 open cast 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 habitat. Neglected areas can support scrub vegetation.

There are many 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. This is principally ash, though with some additional oak. Along streamlines, 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.

### Enclosure

Hedgerows enclose small to medium sized fields. There is a wide variation in field pattern reflecting a diverse history of enclosure. Very irregular fields bounded by mixed species hedgerows containing holly, hawthorn, hazel and maple mark ancient enclosure.

Early enclosure of medieval open fields also tends to show an irregular field pattern. Some areas of this type of enclosure still feature narrow, curved fields that preserve the strips of the open fields system. Hedgerows also contain a mix of species, including holly. 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 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 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 brick 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 measures, which strongly influences both the physical and cultural patterns of the landscape. The mudstones and coal measures 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 fgrown 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. Today many derelict areas are being reworked as part of opencast mining schemes, creating large tracts of new 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 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 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.

# LANDSCAPE TYPE: COALFIELD VILLAGE FARMLANDS

## Woodland Species Mix

### Neutral/more 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*