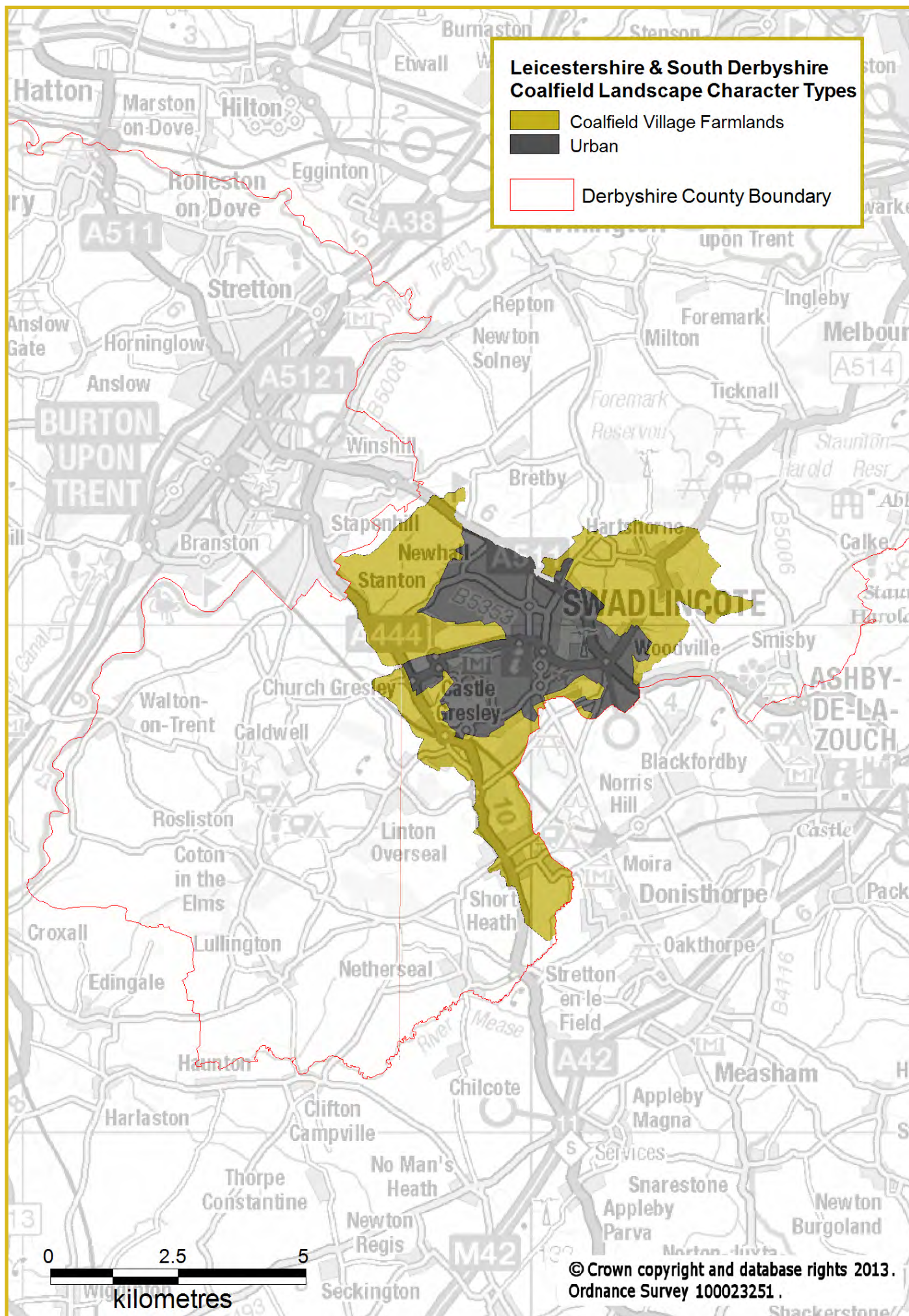


9. Leicestershire and South Derbyshire Coalfield



Landscape Character Types

- Coalfield Village Farmlands 9.4



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%

| | |
|------------------------|-----------------|
| <i>Betula pendula</i> | Silver Birch |
| <i>Quercus petraea</i> | Sessile Oak |
| <i>Quercus robur</i> | Pedunculate Oak |

Secondary Tree Species 20%

Major

| | |
|---------------------------|-------------|
| <i>Betula pubescens</i> | Downy Birch |
| <i>Fraxinus excelsior</i> | Ash |
| <i>Ilex aquifolium</i> | Holly |

Minor

| | |
|-------------------------|-------------|
| <i>Acer campestre</i> | Field Maple |
| <i>Sorbus aucuparia</i> | Rowan |

Shrubs 10-30%

Major

| | |
|---------------------------|----------|
| <i>Corylus avellana</i> | Hazel |
| <i>Crataegus monogyna</i> | Hawthorn |

Minor

| | |
|------------------------|-----------------|
| <i>Frangula alnus</i> | Alder Buckthorn |
| <i>Prunus spinosa</i> | Blackthorn |
| <i>Rosa canina</i> | Dog Rose |
| <i>Viburnum opulus</i> | Guelder Rose |

Open space 0-20%

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

Waterlogged Conditions on all soil types

Primary Tree Species 50%

| | |
|--------------------------|--------------|
| † <i>Alnus glutinosa</i> | Alder |
| † <i>Salix fragilis</i> | Crack Willow |

Secondary Tree Species 20%

Major

| | |
|-------------------------|-------------|
| <i>Betula pubescens</i> | Downy Birch |
| <i>Ilex aquifolium</i> | Holly |
| <i>Quercus petraea</i> | Sessile Oak |

Minor

| | |
|-------------------------|-------------|
| <i>Populus tremula</i> | Aspen |
| <i>Salix caprea</i> | Goat Willow |
| <i>Sorbus aucuparia</i> | Rowan |

Shrubs 10-30%

Major

| | |
|---------------------------|-------------|
| <i>Corylus avellana</i> | Hazel |
| <i>Crataegus monogyna</i> | Hawthorn |
| <i>Salix cinerea</i> | Grey Willow |

Minor

| | |
|------------------------|--------------|
| <i>Prunus spinosa</i> | Blackthorn |
| <i>Viburnum opulus</i> | Guelder Rose |

Open space 0-20%

Hedgerow Species Mix

Suitable hedgerow plants

Primary 70-75%

| | |
|---------------------------|----------|
| <i>Crataegus monogyna</i> | Hawthorn |
|---------------------------|----------|

Secondary 25-30%

| | |
|-------------------------|-------------|
| <i>Acer campestre</i> | Field Maple |
| <i>Corylus avellana</i> | Hazel |
| <i>Ilex aquifolium</i> | Holly |
| <i>Prunus spinosa</i> | Blackthorn |

Occasional 0-5%

| | |
|------------------------|-----------------|
| <i>Frangula alnus</i> | Alder Buckthorn |
| <i>Rosa canina</i> | Dog Rose |
| <i>Viburnum opulus</i> | Guelder Rose |

Suitable hedgerow trees

Primary 80-85%

| | |
|---------------------------|-----------------|
| <i>Fraxinus excelsior</i> | Ash |
| <i>Quercus petraea</i> | Sessile Oak |
| <i>Quercus robur</i> | Pedunculate Oak |

Secondary 15-20%

| | |
|-----------------------|-------------|
| <i>Acer campestre</i> | Field Maple |
|-----------------------|-------------|

Occasional 0-5%*

| | |
|-------------------------|-------|
| <i>Sorbus aucuparia</i> | Rowan |
|-------------------------|-------|

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

