

Part One: Landscape Character Descriptions


3. Derbyshire Peak Fringe and Lower Derwent



Landscape Character Types

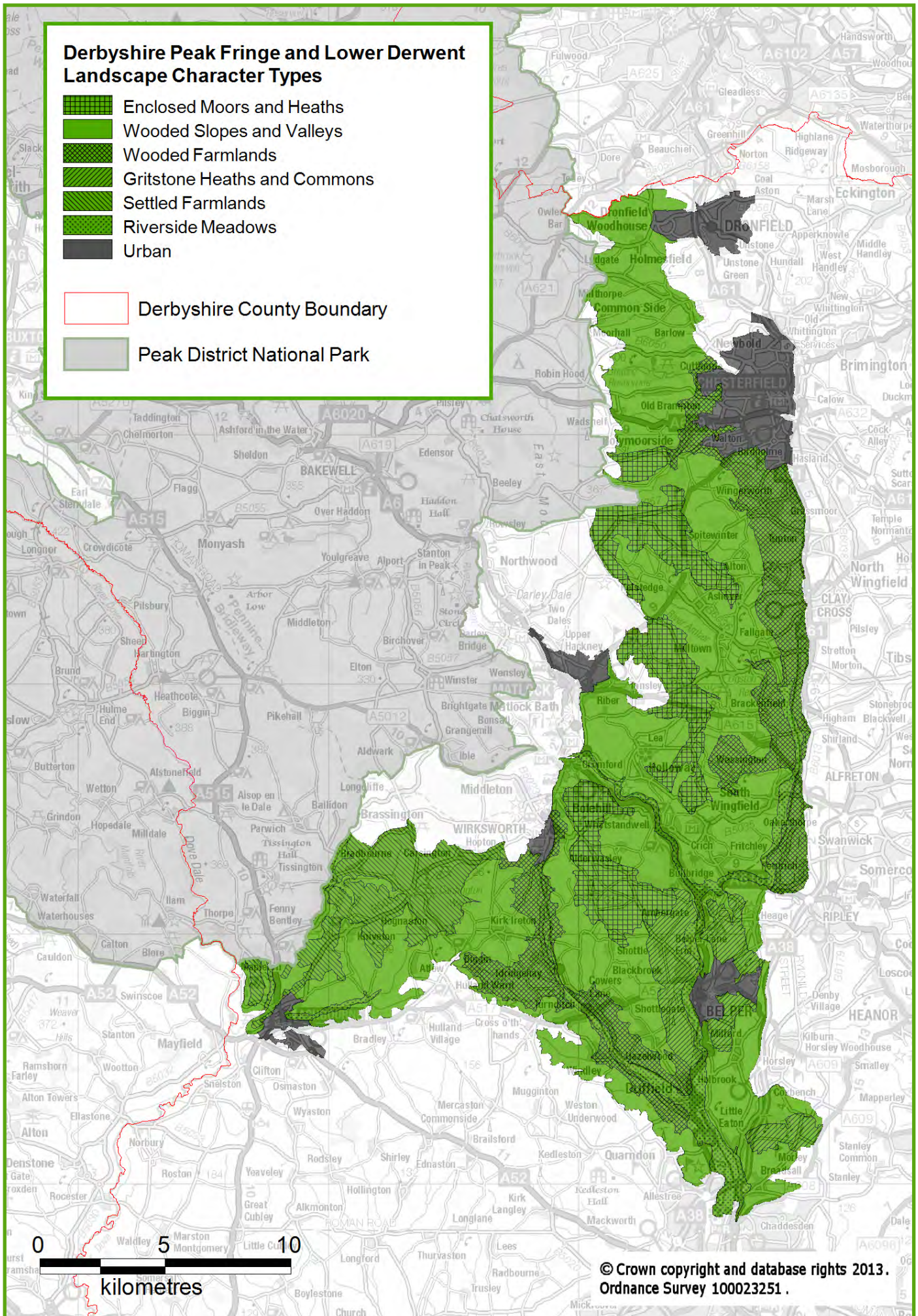
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Derbyshire Peak Fringe and Lower Derwent Landscape Character Types

-  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



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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.

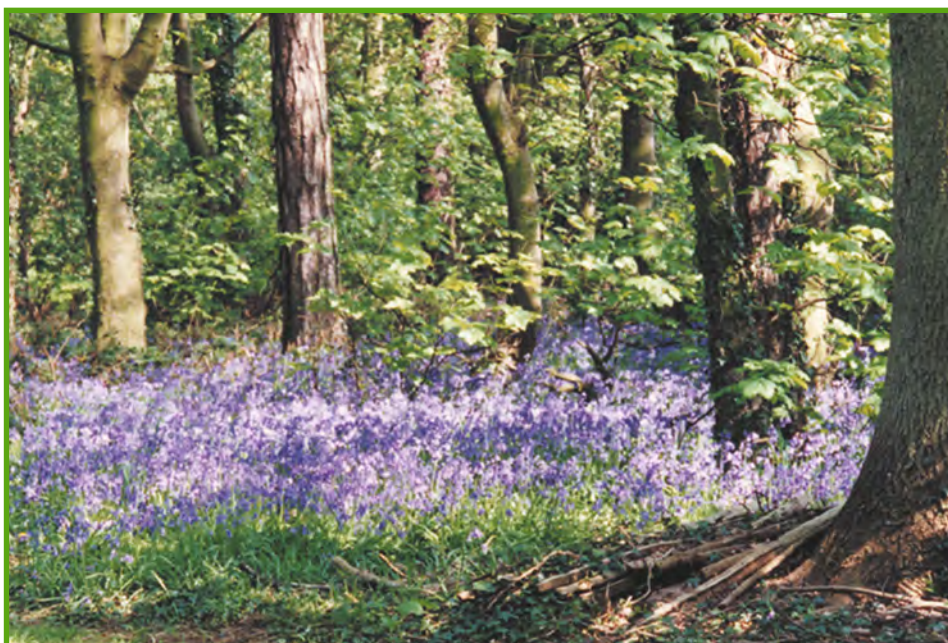
The present day settlement pattern is variable. Nucleated villages, such as Brassington and Bradbourne, are features of the *Settled Farmlands*, whilst the *Wooded Slopes and Valleys* have a more dispersed pattern with scattered farmsteads and small hamlets nestled into the hillsides. There are urban 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

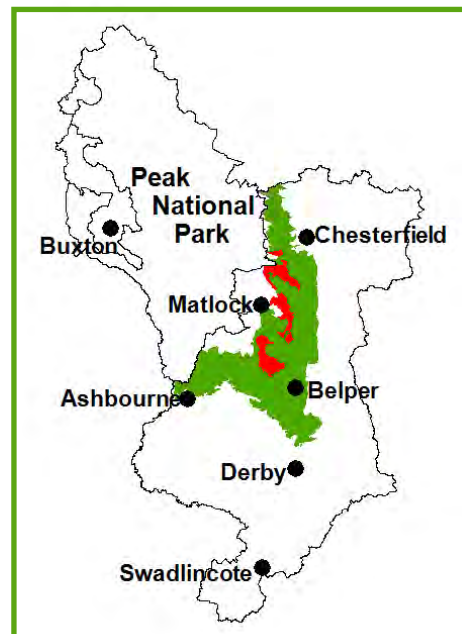
- Lowland Derbyshire BAP
- Peak District BAP
- Derwent Valley Mills World Heritage Site

**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 willow, 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.

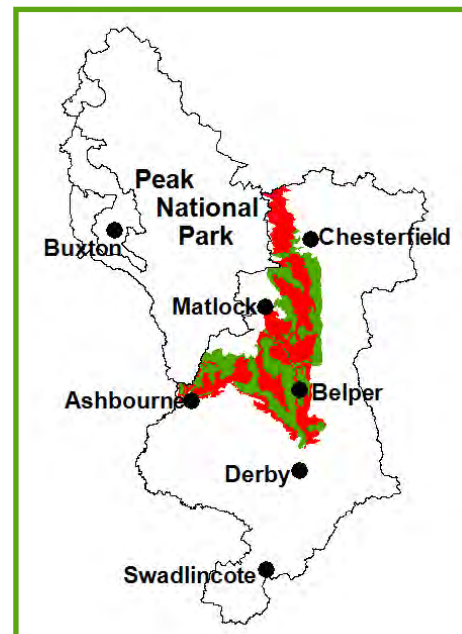
Woodland Species Mix

‡ **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

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.

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-

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
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Woodland pattern:	Organic
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- 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.

Derbyshire Peak Fringe and Lower Derwent

LANDSCAPE TYPE: WOODED SLOPES AND VALLEYS

Woodland Species Mix

Neutral/Slightly Acidic Soils

Primary Tree Species 50%

<i>Betula pendula</i>	Silver Birch
<i>Betula pubescens</i>	Downy Birch
<i>Quercus petraea</i>	Sessile Oak
<i>Quercus robur</i>	Pedunculate Oak

Secondary Tree Species 20%

Major

<i>Fraxinus excelsior</i>	Ash
<i>Ilex aquifolium</i>	Holly

Minor

<i>Malus sylvestris</i>	Crab Apple
<i>Populus tremula</i>	Aspen
<i>Prunus avium</i>	Wild Cherry
<i>Sorbus aucuparia</i>	Rowan

Shrubs 10-30%

Major

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

Minor

<i>Lonicera periclymenum</i>	Honeysuckle
<i>Viburnum opulus</i>	Guelder Rose

Open space 0-20%

More Acidic Soils

Primary Tree Species 50%

<i>Betula pendula</i>	Silver Birch
<i>Betula pubescens</i>	Downy Birch
<i>Quercus petraea</i>	Sessile Oak
<i>Quercus robur</i>	Pedunculate Oak

Secondary Tree Species 20%

Major

<i>Ilex aquifolium</i>	Holly
<i>Sorbus aucuparia</i>	Rowan
<i>Populus tremula</i>	Aspen

Shrubs 10-30%

Major

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

Open space 0-20%

Waterlogged Conditions on all soil types

Primary Tree Species 50%

† <i>Alnus glutinosa</i>	Alder
<i>Betula pubescens</i>	Downy Birch
<i>Salix caprea</i>	Goat Willow
<i>Salix fragilis</i>	Crack Willow

Secondary Tree Species 20%

Major

<i>Betula pendula</i>	Silver Birch
<i>Ilex aquifolium</i>	Holly

Minor

<i>Quercus petraea</i>	Sessile Oak
<i>Quercus robur</i>	Pedunculate Oak
<i>Tilia cordata</i>	Small Leaved Lime

Shrubs 10-30%

Major

<i>Crataegus monogyna</i>	Hawthorn
<i>Salix aurita</i>	Eared Willow
<i>Salix cinerea</i>	Grey Willow

Minor

<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.

Hedgerow Species Mix

Suitable hedgerow plants

Primary 70-75%

<i>Crataegus monogyna</i>	Hawthorn
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Secondary 25-30%

<i>Acer campestre</i>	Field Maple
<i>Corylus avellana</i>	Hazel
<i>Ilex aquifolium</i>	Holly

Occasional 0-5%

<i>Lonicera periclymenum</i>	Honeysuckle
<i>Viburnum opulus</i>	Guelder Rose

Suitable hedgerow trees

Primary 95-100%

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

Occasional 0-5%*

<i>Malus sylvestris</i>	Crab Apple
<i>Prunus avium</i>	Wild Cherry
<i>Prunus padus</i>	Bird Cherry
<i>Sorbus aucuparia</i>	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

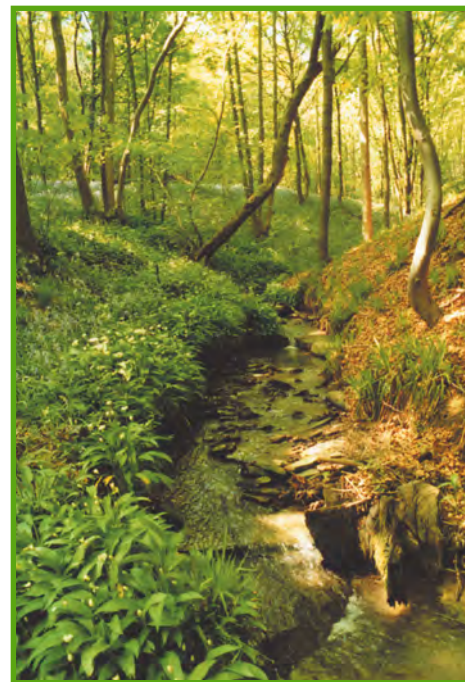
A network of watercourses, often linked with woodland bands, provides the key wildlife habitat in this type. This is reinforced by hedgerows which link isolated patches of habitat in the farmed landscape. On the thin, well-drained soils over sandstone, there are patches of heathy acid

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.

Derbyshire Peak Fringe and Lower Derwent

LANDSCAPE TYPE: WOODED FARMLANDS

Woodland Species Mix

Neutral/Slightly Acidic Soils

Primary Tree Species 50%

<i>Betula pendula</i>	Silver Birch
<i>Betula pubescens</i>	Downy Birch
<i>Quercus petraea</i>	Sessile Oak
<i>Quercus robur</i>	Pedunculate Oak

Secondary Tree Species 20%

Major

<i>Fraxinus excelsior</i>	Ash
<i>Ilex aquifolium</i>	Holly

Minor

<i>Malus sylvestris</i>	Crab Apple
<i>Populus tremula</i>	Aspen
<i>Prunus avium</i>	Wild Cherry
<i>Sorbus aucuparia</i>	Rowan

Shrubs 10-30%

Major

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

Minor

<i>Lonicera periclymenum</i>	Honeysuckle
<i>Viburnum opulus</i>	Guelder Rose

Open space 0-20%

More Acidic Soils

Primary Tree Species 50%

<i>Betula pendula</i>	Silver Birch
<i>Betula pubescens</i>	Downy Birch
<i>Quercus petraea</i>	Sessile Oak
<i>Quercus robur</i>	Pedunculate Oak

Secondary Tree Species 20%

Major

<i>Ilex aquifolium</i>	Holly
<i>Sorbus aucuparia</i>	Rowan
<i>Populus tremula</i>	Aspen

Shrubs 10-30%

Major

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

Open space 0-20%

Waterlogged Conditions on all soil types

Primary Tree Species 50%

† <i>Alnus glutinosa</i>	Alder
<i>Betula pubescens</i>	Downy Birch
† <i>Salix caprea</i>	Goat Willow
† <i>Salix fragilis</i>	Crack Willow

Secondary Tree Species 20%

Major

<i>Betula pendula</i>	Silver Birch
<i>Ilex aquifolium</i>	Holly

Minor

<i>Quercus petraea</i>	Sessile Oak
<i>Quercus robur</i>	Pedunculate Oak
<i>Tilia cordata</i>	Small Leaved Lime

Shrubs 10-30%

Major

<i>Crataegus monogyna</i>	Hawthorn
<i>Salix aurita</i>	Eared Willow
<i>Salix cinerea</i>	Grey Willow

Minor

<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.

Hedgerow Species Mix

Suitable hedgerow plants

Primary 70-75%

<i>Crataegus monogyna</i>	Hawthorn
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Secondary 25-30%

<i>Acer campestre</i>	Field Maple
<i>Corylus avellana</i>	Hazel
<i>Ilex aquifolium</i>	Holly

Occasional 0-5%

<i>Lonicera periclymenum</i>	Honeysuckle
<i>Viburnum opulus</i>	Guelder Rose

Suitable hedgerow trees

Primary 95-100%

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

Occasional 0-5%*

<i>Malus sylvestris</i>	Crab Apple
<i>Prunus avium</i>	Wild Cherry
<i>Prunus padus</i>	Bird Cherry
<i>Sorbus aucuparia</i>	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

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.

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

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.

Derbyshire Peak Fringe and Lower Derwent

LANDSCAPE TYPE: GRITSTONE HEATHS AND COMMONS

Woodland Species Mix

Neutral/Slightly Acidic Soils

Primary Tree Species 50%

<i>Betula pendula</i>	Silver Birch
<i>Betula pubescens</i>	Downy Birch
‡ <i>Quercus petraea</i>	Sessile Oak
‡ <i>Quercus robur</i>	Pedunculate Oak

Secondary Tree Species 20%

Major

‡ <i>Fraxinus excelsior</i>	Ash
<i>Ilex aquifolium</i>	Holly

Minor

<i>Malus sylvestris</i>	Crab Apple
<i>Populus tremula</i>	Aspen
<i>Prunus avium</i>	Wild Cherry
<i>Sorbus aucuparia</i>	Rowan

Shrubs 10-30%

Major

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

Minor

<i>Lonicera periclymenum</i>	Honeysuckle
<i>Viburnum opulus</i>	Gelder 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.

More Acidic Soils

Primary Tree Species 50%

<i>Betula pendula</i>	Silver Birch
<i>Betula pubescens</i>	Downy Birch
‡ <i>Quercus petraea</i>	Sessile Oak
‡ <i>Quercus robur</i>	Pedunculate Oak

Secondary Tree Species 20%

Major

<i>Ilex aquifolium</i>	Holly
<i>Sorbus aucuparia</i>	Rowan
<i>Populus tremula</i>	Aspen

Shrubs 10-30%

Major

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

Open space 0-20%

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

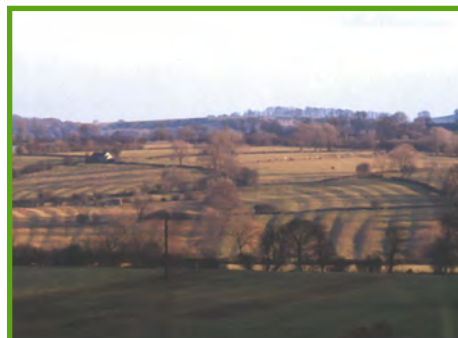
This is a landscape of predominantly small to medium sized semi-regular fields enclosed by hedgerows, although the field size and pattern varies locally, reflecting the diverse history of enclosure. This cultural pattern remains essentially intact, although there has been some field amalgamation in areas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

Derbyshire Peak Fringe and Lower Derwent

LANDSCAPE TYPE: SETTLED FARMLANDS

Woodland Species Mix

Neutral/Slightly Acidic Soils

Primary Tree Species 50%

<i>Betula pendula</i>	Silver Birch
<i>Betula pubescens</i>	Downy Birch
<i>Quercus petraea</i>	Sessile Oak
<i>Quercus robur</i>	Pedunculate Oak

Secondary Tree Species 20%

Major

<i>Fraxinus excelsior</i>	Ash
<i>Ilex aquifolium</i>	Holly

Minor

<i>Malus sylvestris</i>	Crab Apple
<i>Populus tremula</i>	Aspen
<i>Prunus avium</i>	Wild Cherry
<i>Sorbus aucuparia</i>	Rowan

Shrubs 10-30%

Major

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

Minor

<i>Lonicera periclymenum</i>	Honeysuckle
<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>Betula pubescens</i>	Downy Birch
<i>Salix caprea</i>	Goat Willow
† <i>Salix fragilis</i>	Crack Willow

Secondary Tree Species 20%

Major

<i>Betula pendula</i>	Silver Birch
<i>Ilex aquifolium</i>	Holly

Minor

<i>Quercus petraea</i>	Sessile Oak
<i>Quercus robur</i>	Pedunculate Oak
<i>Tilia cordata</i>	Small Leaved Lime

Shrubs 10-30%

Major

<i>Crataegus monogyna</i>	Hawthorn
<i>Salix aurita</i>	Eared Willow
<i>Salix cinerea</i>	Grey Willow

Minor

<i>Prunus spinosa</i>	Blackthorn
<i>Rosa canina</i>	Dog Rose
<i>Viburnum opulus</i>	Guelder Rose

Open space 0-20%

Hedgerow Species Mix

Suitable hedgerow plants

Primary 70-75%

<i>Crataegus monogyna</i>	Hawthorn
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Secondary 25-30%

<i>Corylus avellana</i>	Hazel
<i>Ilex aquifolium</i>	Holly

Occasional 0-5%

<i>Lonicera periclymenum</i>	Honeysuckle
<i>Viburnum opulus</i>	Guelder Rose

Suitable hedgerow trees

Primary 70-75%

<i>Fraxinus excelsior</i>	Ash
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Secondary 25-30%

<i>Quercus petraea</i>	Sessile Oak
<i>Quercus robur</i>	Pedunculate Oak

Occasional 0-5%*

<i>Malus sylvestris</i>	Crab Apple
<i>Prunus avium</i>	Wild Cherry
<i>Prunus padus</i>	Bird Cherry
<i>Sorbus aucuparia</i>	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

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.

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.

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.

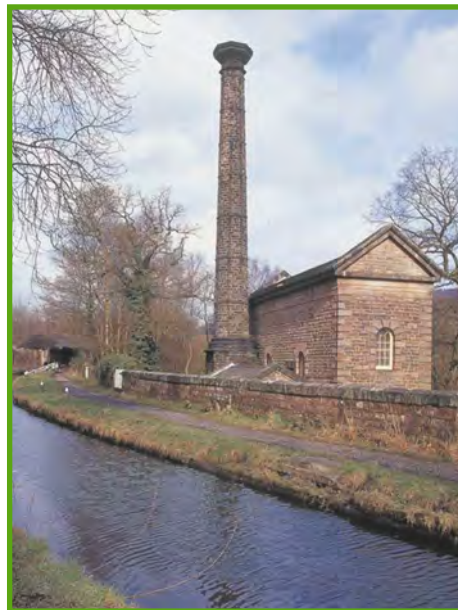
Transport

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
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Woodland pattern:	Organic/ linear
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- 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%

† <i>Alnus glutinosa</i>	Alder
<i>Betula pubescens</i>	Downy Birch
<i>Salix caprea</i>	Goat Willow
<i>Salix fragilis</i>	Crack Willow

Secondary Tree Species 20%

Major

<i>Betula pendula</i>	Silver Birch
<i>Ilex aquifolium</i>	Holly

Minor

<i>Quercus petraea</i>	Sessile Oak
<i>Quercus robur</i>	Pedunculate Oak
<i>Tilia cordata</i>	Small Leaved Lime

Shrubs 10-30%

Major

<i>Crataegus monogyna</i>	Hawthorn
<i>Salix aurita</i>	Eared Willow
<i>Salix cinerea</i>	Grey Willow

Minor

<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

Hedgerow Species Mix

Suitable hedgerow plants

Primary 85-100%

<i>Crataegus monogyna</i>	Hawthorn
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Occasional 0-5%

<i>Corylus avellana</i>	Hazel
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Suitable hedgerow trees

Primary 95-100%

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

Occasional 0-5%*

<i>Malus sylvestris</i>	Crab Apple
<i>Prunus avium</i>	Wild Cherry
<i>Prunus padus</i>	Bird Cherry
<i>Sorbus aucuparia</i>	Rowan

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

