GROUP 3:

RIVER VALLEY FLOODPLAINS

GROUP 3
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River channels bordered by riparian habitat are characteristic of the River Valley Floodplains (© River Nene Regional Park/M Williams)

3A:

FLOODPLAIN VALLEYS

Pastoral farming along river channels (© Nottinghamshire County Council)

KEY CHARACTERISTICS

- Deep alluvium and gravel deposits mask underlying bedrock geology to create wide, flat alluvial floodplains surrounded by rising landform of adjacent Landscape Character Types;
- River channels, often along managed courses, bordered by riparian habitat;
- Predominance of pastoral land use, with cereal growing increasing in some areas. 'Warping' areas subject to more intensive cereal growing;
- Limited woodland cover; however, steep riverside bluffs and areas close to settlement or on former gravel extraction sites notable for a higher level of woodland cover;
- Regular pattern of medium to large fields defined by hedgerows or post and wire fencing, breaking down and becoming open in some areas;
- Hedgerow and riverside trees important component of landscape. Alder, Willow and Poplar are typical riverside trees;
- Limited settlement and development in rural areas;
- Sewage Treatment Works and power stations common close to larger settlements that fringe the floodplains;
- Roads and communication routes often define the outer edges of the floodplain; and
- Restoration of sand and gravel extraction sites to open water creates new character across many areas.

LANDSCAPE CHARACTER

The Floodplain Valleys Landscape Character Type is found throughout the region, along the broad valleys of the Trent, Nene, Welland, Wreake, Soar and Dove, and short stretches of the Derwent and Witham. Despite occupying different parts of the region, and therefore contrasting bedrock geologies, the broad flat belts of alluvium and gravel terrace deposits flanking the river channels are a strong unifying characteristic.

Historically, the floodplains would have shared common land use characteristics with a predominance of permanent pasture on riverside meadows and arable fields on drier gravel terraces. Whilst many stretches of permanent pasture and riverside meadows remain, increasing arable and silage production, and the influence of large urban areas and sand and gravel extraction creates significant contrasts in local landscape character.

Whilst the floodplains themselves are generally devoid of settlement, the rivers and neighbouring gravel terraces have been a focus for settlement for several thousands of years. As such, many areas are noted for their rich and varied archaeological deposits. The majority of the region's major towns are located adjacent to the floodplains and exert a strong but localised influence on their character. Elsewhere, the floodplains constitute some of the most remote and peaceful terrestrial lowland areas in the East Midlands.

Floodplain Valley (© Carol Paterson, Natural England)

PHYSICAL INFLUENCES

The various major rivers of the East Midlands traverse different geology. However, great unity of character is derived from the characteristics of the succession of river-borne superficial deposits, consisting mainly of flood gravels of varying age, and more recently deposited alluvial clays and silts. Peat may also be common.

Alluvial deposits form wide, flat floodplains fringing the meandering river channels. Many of the major rivers flood regularly, and as a consequence, considerable stretches of river have been modified to control flooding and also canalised to facilitate navigation. However, many of the rivers across much of the region appear to retain natural characteristics such as meanders.

The gravels tend to form low terraces along the fringes of the floodplain and on the adjacent valley sides as well as islands within the floodplain itself. The gravel terraces and islands are usually slightly raised above the alluvial floodplain and provide areas of dry land, and as such are sometimes identified by arable fields or settlement.

There are a number of features within the landscape type that are of geodiversity interest. In particular the river valleys provide an important geodiversity resource with the many continual exposures in working sand and gravel quarries together with a range of geomorphological features associated with the rivers, notably meanders, ox-bow lakes, abandoned channels and terrace features. While the application of practices for the care, maintenance and management of features of geodiversity interest within the landscape type are important, and the promotion of their educational and interpretational value, the long term preservation of sand and gravel faces in quarries is not easy.

Soils developed on the floodplain have a predominantly coarse loamy texture, with local variations in the nature of superficial deposits having a strong influence on their drainage and agricultural capacity. In general, soils with higher clay content have impeded drainage and are better suited to grazing. As such, land bordering the main channel tends to be used for grazing cattle and sheep with arable land typically occupying more elevated gravel terraces. Historically permanent pasture would have been more widespread in the floodplains; remnants of flood meadow systems indicating the widespread management of river water to ensure an early flush of grass in the spring. However, recent decades have seen greater emphasis on flood management with river straightening and construction of sluices and flood banks. This has prompted a greater use of the floodplain for cereal production. In some areas, notably north of Gainsborough in the Trent Valley, the level of the land surface has been raised by the addition of sediment transported from elsewhere in a process known as 'Warping' to create highly fertile and well drained soils that are well suited to cereal production.

The Floodplain Valleys tend to be sparsely wooded, and indeed no substantial ancient woodland sites are noted throughout the region's major floodplain river valleys. However, steep wooded bluffs at the fringes of the river channel and small broadleaved copses are characteristic of some areas, and notably close to areas of settlement on the fringes of the floodplain. Wet woodlands within or adjacent to floodplain meadows are also notable and form important remnants of once much more extensive semi-natural habitat, and are sometimes the remnants of osier beds. In recent decades, significant woodland planting has become established around former gravel workings adding to the planned character of these newly created landscape features. Part of the Floodplain Valleys farmland that lies within the Trent Valley is located in The National Forest.

Despite low woodland cover, trees along rivers and in field boundaries add to the overall perception of a well treed landscape, particularly when viewed at ground level. Of particular significance are wetland species, such as willow, poplar and ash which contribute to the overall pastoral character of the floodplain landscape.

CULTURAL INFLUENCES

The region's major river valleys have been important transportation routes throughout history. Indeed, before canals, rail lines and metalled and well maintained roads were common, river boats and barges would have been the quickest and most reliable form of transport. The free draining gravel terraces, close to reliable sources of water, would also have been the focus of settlement and farming from the earliest times. Therefore, the alluvial soils and gravels contain widespread archaeological remains. In some areas, where the alluvial clays are permanently wet, they may be peaty. Organic remains survive, such as seeds, pollen, wood and leather and offer a unique insight to palaeoenvironments and elements of material culture that do not typically survive in drier conditions.

Settlement is most typically located at the edges of the floodplain. Indeed many of the region's larger towns are located immediately adjacent to the Floodplain Valleys Landscape Character Type. The majority of these large riverside settlements have ancient origins, and were often originally established to control strategic river crossings. As the towns have grown, they have tended to avoid encroaching onto the floodplain and as such, have either developed in a linear fashion, along the edge of the river valley, or wrapped around and 'captured' large areas of floodplain within the urban envelope. Occasionally urban areas, predominantly consisting of Victorian terraces, post war industrial development and sports stadiums, extend into and across the floodplain, as at Northampton, Nottingham, Leicester and Melton Mowbray.

Where urban areas are located adjacent to the floodplain, they exert a strong influence on local landscape character. Sewage treatment works, power stations, industrial parks and transport or energy infrastructure features are common urban fringe land uses across the floodplains and gain visual prominence in the otherwise flat and open landscape. Wide areas of degraded landscape are also evident in the urban fringes, with scrub and horse pastures noticeable in the floodplain around several towns. In more recent decades, and in recognition of the aesthetic and recreational value of the river, riverside areas are being redeveloped, and as such new blocks of flats are being constructed to overlook the floodplain landscape and riverside parks created or enhanced.

In rural areas, the regular inundation of the floodplain generally precludes widespread settlement. Therefore, built development is restricted to scattered dwellings and farmsteads. Despite this, small villages and hamlets are evident within the rural floodplain landscape, albeit located on areas of slightly elevated ground or protected by flood embankments. In many instances villages in the floodplain landscape are linear, stretching out along roads parallel to the main river channel, or at right angles to it when associated with a bridge crossing.

Beyond these villages the character of the floodplain landscape contains fewer direct cultural influences. Field boundaries, largely in geometric patterns dating to parliamentary enclosure, divide the floodplain into medium to large fields, with the pattern breaking down in some places to create open areas of farmland. In areas of permanent pasture, ridge and furrow and former flood meadow systems are preserved and are an important remnant of former farming practices. Other commonly occurring historic sites of interest include mill sites and races and canalised sections of rivers and associated locks and sluices constructed in order to control the rivers through canalisation. A range of features associated with transport infrastructure, notably bridges, canals and stretches of dismantled railway line are evocative of the importance of the river valleys for travel and communication.

Large areas of the floodplain landscape are significantly influenced by sand and gravel extraction. Whilst some extraction sites have been restored to farmland, the general pattern since the 1970s, particularly in the Nene Valley, has been to flood old workings and create artificial landscape features, typically characterised by large tracts of open water adjacent to the main river channel surrounded by blocks of native woodland. In contrast to this, other gravel pits, particularly in the Trent Valley, have been backfilled with fly-ash or domestic refuse and not flooded. Many tracts of the Nene and Trent floodplains are now characterised by woods, lakes, open drainage ditches and wetlands, which form a stark contrast to areas of open pasture elsewhere. These areas are highly valued for their recreation potential and nature conservation interest, notably for overwintering birds. Indeed, several former mineral sites are designated as Sites of Special Scientific Interest (SSSI).

AESTHETIC AND PERCEPTUAL QUALITIES

The nature of local land cover and land use has a profound influence on the very varied aesthetic and perceptual qualities of the Floodplain Valleys.

Vast stretches of floodplain landscape retain an intact and traditional character. Here the predominance of permanent grazing land interspersed with meandering river channels fringed by riparian habitats and riverside trees creates a visually coherent and intimate pastoral landscape. The general absence of built development enhances the quiet, rural character of the landscape, which is only occasionally interrupted by roads crossing the river, or views to farms and villages on drier, more elevated land. Hedgerows and rising landform fringing the floodplain enclose views and create an intimate, human scale landscape fringing the more open floodplain.

Occasionally increased occurrence of cereal cropping or silage production and declining hedgerow networks creates a less distinctive landscape that merges with rural areas beyond the edge of the floodplain. Elsewhere, and notably in the Warp lands of north Nottinghamshire, intensive cereal farming creates a highly distinctive floodplain landscape of large fields which are in stark contrast to the intimate riverside pastures evident elsewhere.

In close proximity to the region's major towns, urban fringe land uses are evident across wide areas of floodplain landscape. Here, the visual prominence of sewage treatment works, power stations, pylons and transport infrastructure are set against a backdrop of urban development and create a degraded peri-urban landscape. Despite this, their proximity to urban populations, open character and accessibility of the river combine to make these popular areas for walking and informal recreation.

Former gravel workings represent a marked contrast to more typical pastoral floodplains elsewhere. Wide open expanses of open water, surrounded by extensive tree belts, are wholly artificial but are gradually assimilating into their surroundings to create areas of entirely new character. Whilst some areas are remote and tranquil, others which offer recreational facilities are active and increasingly popular for informal recreation and nature watching.

Floodplain Valley (© Carol Paterson, Natural England)

LANDSCAPE CHANGE AND MANAGEMENT

BUILT DEVELOPMENT

Forces for Change

Development on settlement margins is damaging the character of the landscape, creating visual intrusion and extending the urban edge into the Floodplain Valleys. In particular the edges of Leicester, Nottingham and Derby, and also Northampton and Wellingborough in the Nene Valley, need to be carefully considered as these are identified Growth Points that will receive significant levels of new mixed use development in the short and longer term. Large-scale industrial developments, such as sewage treatment works and power stations are particularly prominent in this otherwise flat and open landscape.

Shaping the Future Landscape

The aim should be to protect the open and unsettled character of the landscape and limit the visual impact of any new structures by locating development on previously developed land or close to existing settlement and avoiding development on greenfield sites. The siting of new development should also avoid floodplain areas, in accordance with government planning policy. Best practice innovative architectural ideas and planning solutions that minimise impact on local landscape and townscape character and utilise eco-friendly high quality design should also be encouraged, along with tree planting around settlement fringes to help integrate new development into the landscape and contribute to the overall perception of a well treed landscape.

INFRASTRUCTURE

Forces for Change

In response to flood risk, engineered solutions, such as concrete flood walls and embankments, have been installed in many locations along the river channels. This has resulted in the canalisation of rivers and loss of riverside vegetation, meadows and pastures, changing the natural character of the Floodplain Valleys, although historic structures can contribute to the character of the river. In some instances, the height of the defences screens the river from view, reducing the sense of openness and sense of place.

There is also the potential for the river landscapes to change due to shifting river channels, cutting off of meanders and the creation of features such as ox-bow lakes. This may result from flooding or other influences, and with the effects of climate change, there is a high potential for this to happen in the medium and long term.

Shaping the Future Landscape

The aim should be to manage flood risk, implementing land management practices to control run-off and make more space for water. Specific mechanisms include restoring floodplains and creating flood storage areas. Promotion will also be necessary to ensure landowners along river channels are encouraged to develop appropriate methods of land-use and land management.

MINERALS AND WASTE

Forces for Change

Sand and gravel extraction is commonplace along river channels. Due to large-scale projected housing growth in the UK, there is continued demand for sand and gravel and therefore new extraction sites. Such sites are in marked contrast to more typical pastoral floodplains, creating short to medium term visual intrusion during the extraction period and reducing the sense of tranquillity in more remote areas.

Shaping the Future Landscape

The aim should be to protect the open character of the landscape by siting extraction sites away from visually prominent locations or intact floodplain landscapes. The impact on long distance views from surrounding villages and towns should also be considered. Where extraction does occur, it will be necessary to plan for site restoration and after-use. In the Nene Valley in particular, the general pattern has been to flood old workings and create entirely new landscape features, typically characterised by large tracts of open water. Elsewhere , many have been backfilled with fly-ash or domestic rubbish.

The preference should be for the creation of wetland habitats such as meadows, reedbeds and marshland which maximise biodiversity benefits, and which have typically been lost due to the erection of flood defences and agricultural intensification. In producing restoration plans for former extraction sites, a diversity of uses needs to be considered, as full restoration to a dry site may not always be an option due to restrictions on the volumes of inert fill.

AGRICULTURE AND LAND MANAGEMENT

Forces for Change

There is marked evidence of agricultural intensification, accompanied by a move from pastoral towards arable farming. This has resulted in the loss or damage of many typical landscape features, including riverside meadows, which would have traditionally defined the river channels and distinguished them from the surrounding farmland. Of those river meadows that remain, many have been agriculturally improved by herbicides and fertilisers, reducing species diversity and visual interest.

Shaping the Future Landscape

The aim should be to protect existing river valley features, whilst encouraging positive management of those features lost or under threat. In particular the restoration of meadows should be given priority, strengthening the character of river channels and providing a diverse range of habitats. Such proposals may be supported by Environmental Stewardship grants.

Floodplain Valley (© Carol Paterson, Natural England)

FORESTRY AND WOODLAND

Forces for Change

Small woodland blocks and remnants of wet woodland are common on the fringes of the floodplain, contributing to the overall perception of a well treed landscape. Significant woodland planting has also become established around former gravel workings as part of their restoration. However, woodland cover is generally sparse, and unless carefully sited, new planting can introduce inappropriate and visually intrusive elements in this open landscape.

Shaping the Future Landscape

The aim should be to protect the open character of the landscape by ensuring the type and location of new woodland and tree planting is appropriate. Large-scale tree planting should generally be avoided, with priority for wet vegetation and riverside trees, strengthening the character of river channels and providing a diverse range of habitats. However, limited native tree planting may be appropriate to soften the impact of built development on settlement margins and as part of the future restoration of sand and gravel workings.

For those areas in the Trent Valley that lie within The National Forest, design guidance for woodland creation should be in accordance with the National Forest Strategy, 2004-14 that has been consulted on and endorsed at the national level. The aim should be to plant small-scale woodlands and linear riverine belts of planting or associated with lakes and pools within the pastoral floodplain with larger scale farm woods within more open agricultural landscapes.

ENVIRONMENTAL PROCESSES AND CLIMATE CHANGE

Forces for Change

The effects of climate change has the potential to lead to increased flooding, and changing river channels and summer desiccation of wetlands

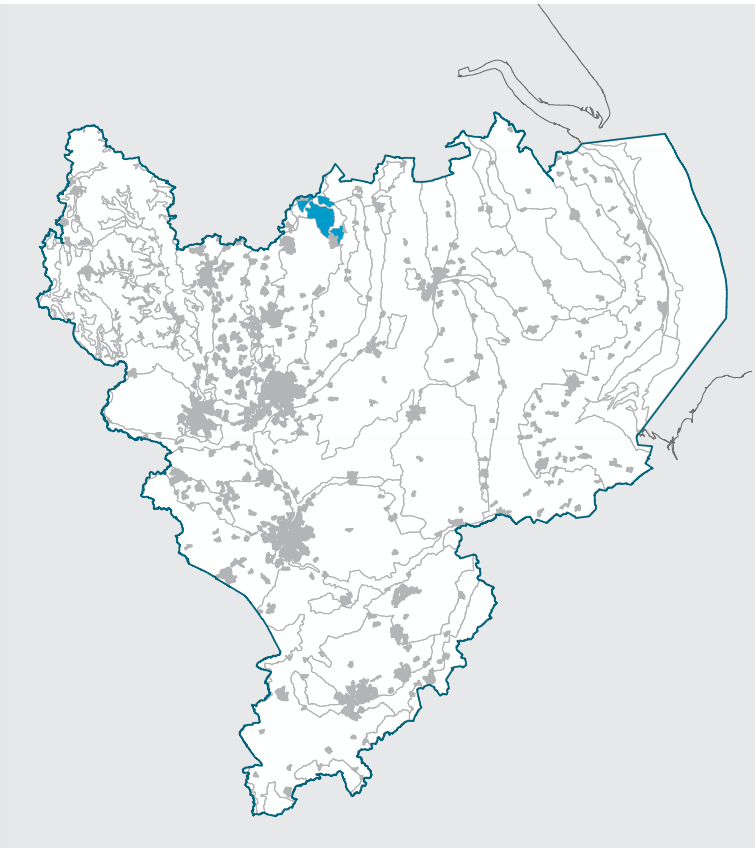
Shaping the Future Landscape

The aim should be to adapt agricultural land management practices to accommodate the projected effects of flooding and desiccation.

3B:

SANDLAND FARMLANDS

Intensively managed and productive arable farmland (© LDA Design LLP)



KEY CHARACTERISTICS

- Gently rolling agricultural landscape of low hills set amongst flat low lying floodplains and levels;
- Regular pattern of roads and fields associated with the enclosure of land;
- Intensively managed and productive arable farmland with few remnants of semi-natural woodland, heath and peat habitat remaining;
- Pattern of small nucleated rural villages and isolated brick farms associated with the enclosure of farmland;
- Flooded sand and gravel pits, creating new landscape character of scrub, woodland and open water in some areas; and
- Localised influence arising from deep mining operations.

LANDSCAPE CHARACTER

The Sandland Farmlands Landscape Character Type, located on the fringes of the River Idle in north Nottinghamshire, is unique within the East Midlands Region. The area is characterised by a series of sandstone hills and ridges which rise above lower lying levels and river valleys to increase their visual prominence.

The hills have been the focus of settlement for some considerable time. The modern settlement pattern reflects this, with rural villages and farms occupying more elevated locations above the valley floodplains and low lying levels.

The thin, sandy soils across the hills and ridges are generally of low fertility, but have been improved through the application of fertilisers and manuring. The landscape is now one of order, associated with the enclosure of land principally in the late 18th and early 19th centuries, with productive arable fields set within a geometric framework of ditched and hedged fieldscapes.

The overburden of glacial deposits has a significant influence on the landscape. As well as creating smooth, rolling landform that merges gradually into the surrounding lowlands, sand and gravel has been worked over many years. Several sites have been restored and are now characterised by open water, wetland, scrub and woodland; a stark contrast to the geometry of the arable farmlands nearby. Coal mining is also evident, with spoil tips, infrastructure and typical colliery architecture forming a further contrast to the more rural landscape of arable fields, villages and brick farmsteads.

PHYSICAL INFLUENCES

The bedrock of Triassic sandstones forms the underlying framework of the landscape, with a series of low hills and ridges orientated north to south, rising above the lower lying river valleys and plains. However, it is superficial deposits originating some 18,000 years ago that have had the most significant influence on landscape character and patterns of land use.

As the ice sheets retreated northwards at the end of the last Ice Age, rivers flowed rapidly in a braided pattern across the floor of a former lake and deposited successive banks of silt, sand and gravel across the undulating sandstone hills. Gradually, river borne alluvium was deposited in low lying areas and peat formed where drainage became impeded, leaving the gravel and sand banks as a series of hills and ridges surrounded by low lying river basins. Higher areas also retain a capping of till, as at Barrow Hills west of Everton in Nottinghamshire

The hills rise to a maximum elevation of approximately 40m AOD. However, generally they are lower, rising to 30m above the low lying floodplains and peat areas that are just above sea level. The glacial deposits are also significant as they create a rounded and rolling topography that merges gradually into the adjoining low lying areas.

The quarries in the local sandstone bedrock and river terraces support a range of geomorphological features. As a result, this landscape type has some scope for the application of practices for the care, maintenance and management of features of geodiversity interest and the promotion of their educational and interpretational interest..

The pattern of soil types across the landscape shares a close relationship to the underlying geology. At lower elevations and across belts of glacio-fluvial sand and gravel, naturally wet acidic sandy and loamy soils occur. Despite their generally low fertility, the light sandy soils are easily worked, and with the application of manure or fertiliser are well suited to arable and horticulture cropping.

Where the superficial deposits have thinned out the underlying bedrock exerts a stronger influence on soil structure and slightly acid and free draining sandy soils predominate. These areas have thinner soils and as such, were historically of marginal agricultural value and have only relatively recently been bought into cultivation. Beyond the region these areas are characterised by commercial forestry. Here significant tree planting is also notable in the landscape, generally in the form of mixed plantations and belts of broadleaved woodland close to gravel extraction sites such as in the vicinity of Ranskill and Lound. A single area of ancient woodland is evident on Barrow Hills, which is an indication of the local area's marginal agricultural potential.

Historically, the area's poor acidic soils would have supported dry heathland, perhaps with scattered remnants of natural oak woodland. However, centuries of agricultural improvement have reduced the coverage of semi natural habitat across the Sandland Farmlands. No large areas of heath survive. However, their former extent is reflected in the widespread occurrence of bracken and other heathland communities. Areas of peat are also evident in some places. These once more extensive deposits have been subject to widespread drainage and reversion to arable cropping. Where drainage has been partially successful the land is under permanent pasture.

Open water areas are also a common landscape feature. These occur in areas of former sand and gravel extraction. In contrast to extraction sites on the region's major rivers, the pattern of pits is of a smaller scale and restoration is generally to a more intimate matrix of open water and wetland habitats surrounded by woodland and scrub.

CULTURAL INFLUENCES

Evidence suggests that the landscape has been cleared and settled for some considerable time, with occupation extending across the hills and lower riverside areas. However, from the later Roman period, when conditions at lower elevations worsened, it appears that settlement contracted from the marginal wetland areas to the drier lands of the hills and ridges. Place names attest to this, the suffix 'ey' meaning island in the Saxon period.

As populations increased during the medieval period villages grew significantly. As they did, woodland and heath were cleared from all but the most marginal areas and the lower wetter areas were increasingly drained for farming.

During the later 18th and early 19th centuries, the existing and dominant pattern of relatively large geometric fields was set out, around a framework of straight roads and tracks. Generally fields are defined by low, well maintained hedgerows, although in lower lying areas ditches are also evident. Enclosure inevitably led to the creation of new farms outside the villages. These typically consist of a farm house with extensive brick outbuildings located centrally within new units of land and surrounded by belts of trees for shelter and ornament. Echoing past settlement patterns, these farms were often located on elevated areas of land to avoid flooding.

In recent times, the most significant influence on landscape character has been extractive industries. Sand and gravel extraction is particularly evident fringing the River Idle and across low lying areas east of Ranskill. Restoration of former extraction sites has generally been to open water, but some sites have been restored to farmland or woodland. Where restoration to farmland has occurred, the evidence of working is less obvious. However, the greater incidence of scrub and woodland and the absence of hedged fields are often a clear indication of past land use.

The Sandland Farmlands also lies within the Yorkshire and East Midlands Coalfield. Coal bearing strata dip gently eastwards, and as such the coal has to be extracted from depths of up to 1000m. An active pit is located at Harworth, where the coal tip and mine structures dominate the local landscape. Harworth, like other colliery towns grew rapidly during the early 20th century, and shares many characteristics with other colliery towns in the region.

AESTHETIC AND PERCEPTUAL QUALITIES

The low hills and ridges are raised above their surroundings by just a few metres. However, their visual prominence is emphasised significantly by their location in otherwise flat, low lying levels. From these lower lying areas, the hills and ridges form a backdrop to otherwise panoramic views and create a sense of visual enclosure. By contrast, extensive views are possible from several hills across wide areas of the surrounding landscape, creating a somewhat exposed character, albeit with vistas interrupted by hedgerows and trees.

The Sandland Farmlands is a settled agricultural landscape with small rural villages and farms set amongst productive fields. Whilst significant areas retain a peaceful agricultural character, notable portions of the landscape are influenced by extraction industries, with coal mining and sand and gravel workings evident in several locations. These busy areas are characterised by noticeably higher levels of activity and industrial infrastructure when compared to rural areas.

The geometric pattern of roads and fields creates a regular patchwork landscape, with a highly managed character, which is often reinforced by modern linear shelterbelts and mixed plantations. The limited retention of semi-natural habitats further contributes to the managed character of the landscape. However, the undulating character of the hills and ridges often makes the underlying geometric pattern of fields difficult to discern from ground level. In addition, the sinuous course of river channels flanked by rushy pastures, and the organic shapes of reclaimed sand and gravel workings combine to create a complex and semi-natural character that is in contrast to the ordered geometry of arable fields.

The reclamation of former mineral workings is creating new landscape features, typically characterised by open water, wetland, scrub and woodland. As they mature, these areas create ecologically rich environments, and add significantly to local landscape character and visual diversity.

LANDSCAPE CHANGE AND MANAGEMENT

BUILT DEVELOPMENT

Forces for Change

Built development is having a suburbanising effect on many of the villages in the Sandland Farmlands, eroding the character of both historic market towns and mining settlements. Development on settlement margins can be particularly damaging, creating visual intrusion and creating a new urban edge to the countryside.

Shaping the Future Landscape

The aim should be to protect the distinctive character of rural settlements throughout the landscape and consider the visual impact of any new development. Specific mechanisms include Village and Town Design Statements, and tree planting around settlement fringes to help integrate new development into the landscape and ensure the appropriate use of vernacular styles and building materials. As well as Village and Town Design Statements, Conservation Area Appraisals can also be important tools. There should also be a place for the use of best practice innovative architectural solutions and planning solutions that take inspiration from local distinctiveness and character whilst utilising eco-friendly and high quality design.

MINERALS AND WASTE

Forces for Change

Sand and gravel extraction is occurring north of Retford, where the Sandland Farmlands adjoins the Floodplain Valleys. While extraction sites are in marked contrast to the surrounding arable fields, reducing the sense of tranquillity and creating visual intrusion, such infrastructure is not uncommon in this landscape; a deep coal mining site is located at Harworth and a land-fill site is located near Torworth.

Shaping the Future Landscape

The aim should be to protect the open character of the landscape by siting extraction sites and waste facilities away from visually prominent locations. The impact on long distance views from surrounding villages and towns should also be considered. It will also be necessary to plan for their restoration and after-use of operational sites. In relation to the restoration of sand and gravel extraction sites, the preference should be for wetlands habitats such as meadows, reedbeds and marshland. In relation to colliery and landfill sites, opportunities for restoration to woodland and farmland should be explored.

AGRICULTURE AND LAND MANAGEMENT

Forces for Change

There is marked evidence of agricultural intensification, accompanied by a move from pastoral towards arable farming. This has led to the loss and decline of field boundaries generally, and also a reduction in meadows and wetland habitats more locally in areas adjoining the river corridors.

Shaping the Future Landscape

The aim should be to protect existing rural landscape features, whilst encouraging positive management of those features lost or under threat. In particular the restoration of hedgerows should be given priority, strengthening the pattern of land use. Hedgerows can also be used in and around settlements as a mechanism for containing urban expansion.

GROUP 4:
LOWLAND VALES

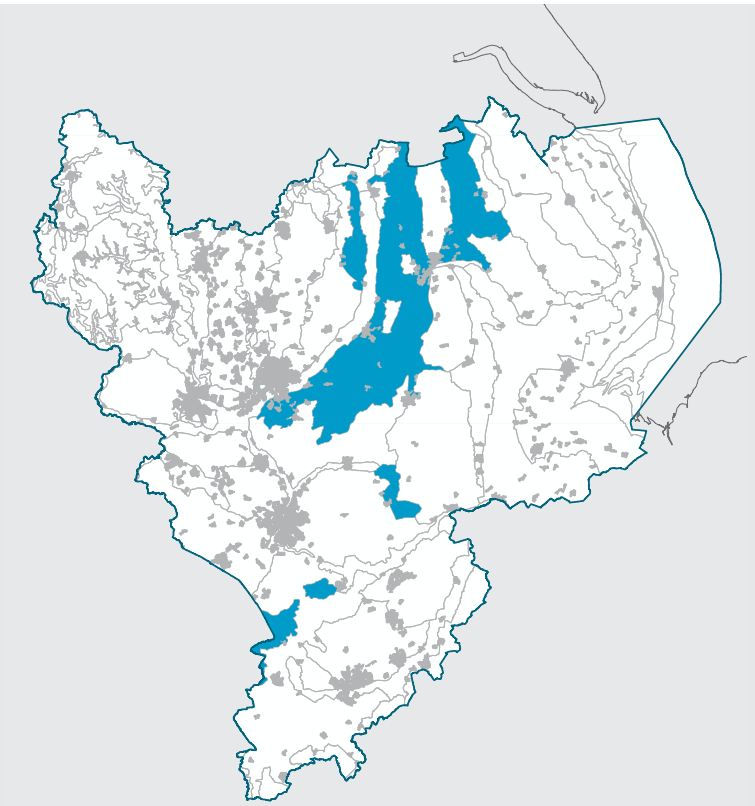
GROUP 4
PAGES 135-148

Gently undulating landform is characteristic of the Lowland Vales (© LDA Design LLP)

4A:

UNWOODED VALES

Flat, open landscape with expansive views (© LDA Design LLP)



KEY CHARACTERISTICS

- Extensive, low lying rural landscape underlain by Triassic and Jurassic mudstones and clays and widespread superficial deposits;
- Expansive long distance and panoramic views from higher ground at the margin of the vales gives a sense of visual containment;
- Low hills and ridges gain visual prominence in an otherwise gently undulating landscape;
- Complex drainage patterns of watercourses that flow within shallow undulations often flanked by pasture and riparian habitats;
- Limited woodland cover; shelter belts and hedgerow trees gain greater visual significance and habitat value as a result;
- Productive arable and pastoral farmland, with evidence of increasing reversion to arable cropping in recent times;
- Regular pattern of medium sized fields enclosed by low and generally well maintained hedgerows and ditches in low lying areas; large modern fieldscapes evident in areas of arable reversion; and
- Sparsely settled with small villages and dispersed farms linked by quiet rural lanes.

LANDSCAPE CHARACTER

The rural Unwooded Vales Landscape Character Type within a central area of the region on a broadly north south axis, and whilst various underlying bedrock geologies exert a local influence, superficial deposits create a softly undulating landscape and consistent and recognisable character.

The Vales generally have a strong sense of place, with major landform features flanking the lower lying areas creating broad scale visual containment. Within the vales, low hills and ridges are also important, foreshortening views and creating subtle relief features.

The vale landscape is generally characterised by productive mixed agriculture, set within an enclosed landscape of low, well maintained hedgerows. Wide areas are under permanent pasture, often grazed by dairy herds. However, areas of pasture are increasingly being ploughed up for cereals and hedgerows removed to accommodate large machines. Rivers and streams are also an important landscape feature. Whilst these occupy shallow folds and are not immediately apparent in views, their courses can often be observed by tracing sinuous belts of riparian habitat and riverside trees.

Unwooded Vales (© Carol Paterson, Natural England)

The vast majority of the Vales retain a deeply rural and tranquil character, with farms and small nucleated villages located throughout areas of productive farmland, linked by narrow winding lanes and roads. Despite low levels of woodland cover, local landform, hedgerows and shelter belts create visual containment and give the Vales landscape an intimate character. By contrast, panoramic views are possible from elevated locations albeit contained by rising land at the edges of the Vales.

PHYSICAL INFLUENCES

The Unwooded Vales of the East Midlands are closely associated with the broad belts of Triassic and Jurassic mudstones and clays that run northwards through the region. Whilst local variations in the bedrock exist, these rock formations generally give rise to a low, gently undulating landform. Occasionally hills and ridges rise out of the vales, marking the watersheds between watercourses draining through the vales. These elevated areas are often capped by villages or trees emphasising their visual prominence.

Variations in the underlying bedrock are masked by the extensive glacial deposits of till, together with alluvium, sand and gravel and solifluction deposits (head). These deposits further soften landform features and exert a strong influence on soils and therefore patterns of agricultural land use.

Drainage patterns throughout the vales are complex, with a multitude of rivers and stream channels draining neighbouring uplands to join the region's main river systems. Watercourses, often bordered by narrow alluvial floodplains, wind through the landscape along shallow valleys, appearing little more than gentle folds in the landscape. Indeed, these watercourses are often not discernible in the landscape and only become evident by tracing alder and willow trees, and sinuous belts of riparian habitat or rushy pastures.

The varied geological framework of bedrock and glacial deposits has a significant influence in the distribution of various soils types in the Unwooded Vales; loamy, peaty, clayey and sandy soils are all in evidence across the landscape. Free draining soils are not typical although a small area of shallow lime-rich soils is evident on the ooidal limestone north of Lincoln. Generally, therefore, the vales landscape contains soils with impeded drainage and naturally wet soils along the belts of alluvium bordering streams.

The series of quarries associated with the past and present extraction of mudstones and gypsum offers some potential the application of practices for the care, maintenance and management of features of geodiversity interest and the promotion of their educational and interpretational interest. Some of the abandoned quarries may have potential for geo-conservation by re-exposing the geology.

Despite improvement and drainage creating a greater unity in the agricultural capacity of the vales landscape, local variations in soils continue to have an influence on patterns of agricultural land use. The Unwooded Vales are generally characterised by a mixed farming regime; many areas are well suited to pasture farming, and indeed large areas of the vales are evident as improved pasture for dairy cattle. Permanent pastures are typical along the alluvial belts bordering stream channels, where ranker and rushy pastures are common. Cereal and vegetable cropping is widespread and in some areas hedgerow removal has created some very large fields, often under a single crop.

In this long settled and productive agricultural landscape there are typically low levels of woodland cover and very low levels of surviving ancient woodland. Despite this, the landscape appears well treed, largely on account of ground level views across wide areas encompassing hedgerows and well established, moderately sized, game coverts, mixed plantations and shelter belts. Whilst not common, hedgerow trees, notably oak and ash, are also important both to provide shelter and to add to the overall treed character of the landscape.

Similar to the low retention of woodland cover, the landscape has retained little semi natural habitat, reflected in the low occurrence of areas designated for their nature conservation value. Indeed, it is interesting to note that many of the key biodiversity assets, such as Rutland Water, Grantham Canal and sand and gravel pits at Whisby are artificial. In such a managed agricultural environment, networks of hedgerows and hedgerow trees gain significance in offering a refuge for birds and insects.

CULTURAL INFLUENCES

It is not unreasonable to assume that the vales were settled and exploited throughout prehistory. However, the clay soils are not particularly suited to displaying crop-marks, and the rural landscape has not been extensively surveyed by archaeologists, and as such there is little evidence to create an accurate picture of pre-historic land uses.

Roman evidence is more widespread with several Roman towns located within or fringing the vales. Several Roman roads, such as the Fosse Way, Great North Road and Watling Street, pass through the Unwooded Vales, indicating that these gentle and low lying areas provided convenient routes through the hills and wetlands.

It is to the late Saxon period that the existing dispersed pattern of nucleated settlements can largely be traced; place name evidence suggesting settlement by both Saxon and Norse communities. Building on a much more dispersed pattern of settlement the mid to late Saxon period saw the establishment and consolidation of the vales villages. These tend to be nucleated around a central church, and located at the junction of two or more roads that wind through the landscape. Many villages are located on spinal routes that pass along watersheds and raised landform running between rivers and streams. The roads and watercourses combine to give a subtle grain to the landscape, although this is interrupted by the numerous 'cross routes'.

As communities grew, so did the villages, and much of the vales landscape was brought into cultivation. During the medieval period some settlements, such as Market Harborough, were gaining status, and developed as centres of commerce and trade serving their rural hinterland. Remnants of the medieval agricultural economy can be found throughout the vales landscape. The ridges and furrows of the open fields are widespread, preserved beneath areas of pasture.

In some areas, the conversion of open fields to enclosed grazing occurred as early as the Tudor period. However, enclosure of much of the Unwooded Vales landscape occurred in the late 18th and early 19th century, with surveyors setting out regular fields bounded by hedgerows. Many hedgerows were laid out in geometric patterns, although much older hedges are evident, often as sinuous belts of trees and shrubs, perhaps defining parish boundaries and older field systems into which the straight enclosure boundaries were established. The period also saw other improvements to agricultural land with enhanced drainage and the straightening of watercourses. Farms were also established in the new field systems.

The rebuilding of many villages in the vales also took place in this period. The use of clay brick and tile roofs was widespread, and many older timber framed cottages were encased in more durable materials, or demolished altogether.

In recent decades, the productivity of the land has stimulated widespread change in the rural landscape. Large areas of permanent grassland have been ploughed up, leading to some areas with a predominance of arable, some of which appears as vast areas of monoculture. The enclosure landscape has been modified by the removal of hedgerows and ditches so that fields can better accommodate large scale machinery. In many instances the only clues to former field patterns are remnants of low grass banks within ploughed fields.

The flat and open character of the Unwooded Vales made the landscape ideal for the development of wartime airfields, and there are a number of redundant airfields still present.

AESTHETIC AND PERCEPTUAL QUALITIES

The Unwooded Vales is a simple and unified landscape type, consisting of a limited palette of features and elements, principally comprising, permanent pastures alongside watercourses; productive mixed farmland within a planned pattern of hedged and ditched enclosures; and nucleated villages and dispersed farmsteads linked by narrow winding lanes and more direct arterial routes.

Whilst the landform of the Unwooded Vales is typically low and subdued, rising landform towards their fringes creates a sense of visual containment. In the broader vales, this is sometimes difficult to discern; however, glimpses of neighbouring elevated areas are often sufficient to provide a strong sense of place. Within the broad vales, and typically along river and stream valleys, more intimate and human scale areas can be discerned. These 'sub-vales' generally follow river valleys with their outer limits defined by low hills and ridges along watersheds.

Unwooded Vales (© Carol Paterson, Natural England)

The soft and gently undulating landscape and low levels of woodland cover creates a relatively open and expansive landscape. Wide panoramic views are possible from the low hills and ridges that form watersheds between watercourses. However, a more intimate character prevails in lower lying areas, particularly where intact hedgerow networks or belts of riverside trees truncate views. The Unwooded Vales landscape character type is also perceived as being relatively sparsely settled, with villages, hamlets and farms widely distributed throughout the rural landscape. These are often relatively small and nucleated, with surrounding belts of trees integrating them into their landscape setting, the skyline often only being punctuated by the church spire or tower which can be seen from some distance away.

The Unwooded Vales Landscape Character Type has a strong agricultural character, with wide areas retaining a sense of rural tranquillity. This is particularly evident where the vale landscape is intact, with farmland interspersed with small villages and hamlets.

LANDSCAPE CHANGE AND MANAGEMENT

BUILT DEVELOPMENT

Forces for Change

The majority of new built development is located on the fringes of the larger settlements of Nottingham, the southern fringe of which lies in the Unwooded Vale, and Lincoln and Newark-on-Trent, all of which are identified in the Regional Spatial Strategy as growth points to receive significant levels of growth. However, many of the rural villages have not seen widespread expansion. Development pressure continues today, with demand for housing, commerce and industry creating visual intrusion and extending the urban fringe.

Shaping the Future Landscape

The aim should be to manage growth, ensuring development is appropriate in terms of type, scale and location. Best practice innovative architectural ideas and planning solutions should be employed to minimise impact on local landscape and townscape character and the planting of new trees and woodland around urban fringes should be encouraged, helping to integrate new large scale mixed use development into the landscape. For development associated with the rural villages, specific mechanisms include Village Design Statements, and tree planting around settlement fringes to help integrate new development into the landscape and ensure the appropriate use of vernacular styles and building materials. As well as Village and Town Design Statements, Conservation Area Appraisals can also be important tools.

INFRASTRUCTURE

Forces for Change

The flat, open landscape of the Unwooded Vales contains several airfields. While redundant airfields provide an opportunity for new housing or employment uses, this reduces tranquillity and the sense of remoteness in sparsely settled areas.

The construction of new roads or road alteration schemes has the potential to significantly affect the landscape with implications for change in character. The significant impact of the A46 widening scheme is a demonstration of this process and the effect on the wider countryside.

Shaping the Future Landscape

The aim should be to manage redundant airfields, ensuring development is appropriate in terms of type, scale and location and provision is made for new landscape features. In addition, it may be appropriate to retain existing infrastructure, providing an historic link with those that had a wartime role.

New road schemes, as well as widening or realignment of existing roads should ensure that they are carefully integrated into the landscape through sensitive attention to alignment, detailing and planting where appropriate.

AGRICULTURE AND LAND MANAGEMENT

Forces for Change

The most widespread change has been agricultural intensification and the change from pastoral to arable cropping. This has resulted in the loss of hedges, and consequently, an increase in field size. Although the remaining hedgerow network is generally strong, there is nevertheless evidence of decline in a number of areas, with gaps and few hedgerow trees. The loss of pasture is particularly evident around settlements, where grazing animals and smaller field sizes contribute to the setting and structure of several villages. Watercourses are also an important feature of the landscape, although often indiscernible.

Shaping the Future Landscape

The aim should be to protect existing rural landscape features, whilst encouraging positive management of those features lost or under threat. In particular, the restoration of hedgerows should be given priority where there is evidence of decline. The creation of new hedgerows and permanent pasture along watercourses should also be a priority, enhancing the visibility of streams and dykes, whilst increasing the occurrence of semi-natural habitats.

FORESTRY AND WOODLAND

Forces for Change

Woodland does not form a significant component of this landscape, and considering its open and expansive character, extensive new woodland planting would be generally inappropriate. However, limited tree planting could be used in and around settlements to integrate new development into the landscape and in more intimate low-lying areas to help create a mixed pattern of land-use, increase the occurrence of semi-natural habitats and maintain the perception of a 'well treed' landscape.

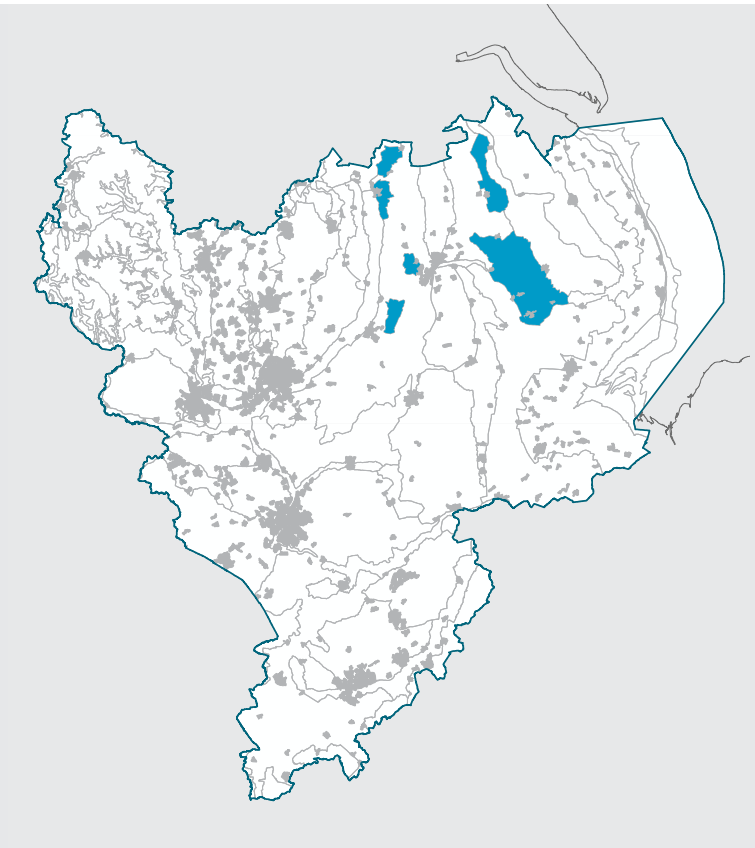
Shaping the Future Landscape

The aim should be to plan new tree planting around key settlements and other suitable locations. Trees should be typically grouped in small plantations/copses or as individual trees within hedgerows. Such proposals should be undertaken in collaboration with the Forestry Commission and local landowners, and financial support may be available through the English Woodland Grant Scheme.

4B:

WOODED VALES

Large coniferous plantation, enclosing areas of farmland (© LDA Design LLP)



KEY CHARACTERISTICS

- Gently undulating landform formed over soft mudstone and clay geology, sharing many characteristics with the wider Unwooded Vales Landscape Character Type;
- Deposits of superficial geology, particularly cover sands and till influences local land use and semi-natural habitat cover;
- Low hills and ridges gain visual prominence; elevated landform fringing vales give broad sense of containment;
- Numerous watercourses flow within shallow undulations often flanked by pasture and riparian habitat;
- Relatively high levels of woodland cover, with notable tracts of ancient semi-natural woodland along outer fringes of parishes and large coniferous plantations;
- Productive arable and pastoral farmland, with evidence of increasing reversion to arable cropping;
- Irregular shaped assarted fields marked by belts of trees and tall hedgerows, juxtaposed with regular pattern of medium sized fields associated with enclosure of land, with low and generally well maintained hedgerows and ditches in low lying areas;
- Open, modern fieldscapes created by hedgerow removal in areas of arable reversion;

- Sparsely settled with small villages and dispersed farms linked by quiet rural winding lanes often flanked by tall hedgerows and tree belts; and
- Rural and historic character prevails, although coniferous plantations and modern arable fields diminish sense of antiquity.

LANDSCAPE CHARACTER

The sparsely settled Wooded Vales Landscape Character Type generally occurs in north Lincolnshire and lies within the much broader and extensive Unwooded Vales. Whilst various underlying bedrock geologies can be identified, extensive superficial deposits of till and cover sand create a softly undulating landscape.

The Wooded Vales generally has a strong sense of place, with major landform features flanking the lower lying areas creating broad scale visual containment. High levels of woodland cover are in evidence when compared to the Unwooded Vales and add to local distinctiveness and provide a coherent and recognisable character and strong identity.

Woodlands and localised variations in landform also foreshorten views and obstruct wide panoramas to create a more intimate scale landscape than is experienced in the Unwooded Vales. However, uninterrupted panoramic views across farmland are possible, albeit with woodlands often forming a dark backdrop or feature on the horizon.

The Wooded Vales landscape is generally characterised by productive mixed agriculture, set within an enclosed landscape of well maintained hedgerows, sometimes marking ancient assarts. Wide areas are under permanent pasture. However, areas of pasture are increasingly being ploughed up for cereals and hedgerows removed to accommodate large machines.

Whilst agricultural improvement has created large tracts of productive farmland, significant areas remain thickly wooded with ancient broadleaved woodlands and planted ancient woodlands. Sizable areas of sandy heathland are also evident on areas of cover sand, although some have been extensively forested with conifers. Rivers and streams are also an important landscape feature. Whilst these occupy shallow folds and are not immediately apparent in views, their course can often be observed by tracing sinuous belts of riparian habitat, wet woodland and riverside trees.

The vast majority of the Wooded Vales retains a historic, deeply rural and tranquil character, with farms and small nucleated villages located throughout areas of productive farmland and linked by narrow winding lanes and roads.

PHYSICAL INFLUENCES

The Wooded Vales of the East Midlands are closely associated with the broad belts of Triassic and Jurassic mudstones that run northwards through the region. Whilst local variations in the bedrock exist, the soft mudstones generally give rise to a low, gently undulating landform. Occasionally hills and ridges rise out of the Wooded Vales, marking the watersheds between watercourses draining through the vales. Variations in the underlying bedrock are almost entirely masked by the glacial deposits of till, which themselves are capped in places by cover sand deposits. These deposits further soften landform features and exert a strong influence on soils and therefore patterns of agricultural land use and semi natural habitat. Indeed, the cover sands are particularly notable as having a higher retention of semi natural acid grassland and lowland heath habitat.

A multitude of rivers and stream channels drain neighbouring upland areas to join the region's main river systems. Watercourses, bordered by narrow alluvial floodplains, wind through the landscape along shallow valleys. These appear as little more than gentle folds in the landscape and only become evident by tracing alder and willow trees, and sinuous belts riparian habitat or rushy pasture. Sizable areas of ancient wet woodland are also notable along several watercourses. Many wet woodland sites are characterised by native broadleaved species. However, several have been replanted with conifers and are classified as Planted Ancient Woodland (PAW).

Of particular significance are the Lime Woods that occupy areas of till to the east of Lincoln. These are the most important small leaved lime woods in Britain, and are noted for their great age and wildlife value. Some areas are believed to be remnants of the Wildwood that developed after the retreat of the ice sheets and as such are of national significance and of great cultural and biodiversity value. Large areas of ancient lime wood have been designated for their wildlife value.

Acidic soils have developed across areas where cover sand deposits overly the underlying till. Whilst natural fertility is low, agricultural improvement has allowed productive arable and horticulture farming. Some marginal areas have avoided improvement, and are notable for sizable tracts of birch fringed lowland heath and acid grassland. Even in improved areas, the acidic nature of the soils is evident in the presence of indicator species, such as gorse, bracken and birch trees along roadsides and in hedgebanks.

Loamy soils are also widespread across areas of thick till. Semi natural habitat cover is low, although large tracts of mixed deciduous woodland are evident set within a landscape of pasture and arable farms. Cereal farming is the prevalent agricultural land use, although improved pastures are also widespread, often in close association with unimproved pastures along stream channels and adjacent to woodlands.

This landscape type offers very limited opportunities for the application of practices for the care, maintenance and management of features of geodiversity interest and the promotion of their educational and interpretational interest. However, there may be good geomorphological features worthy of preservation.

Wooded Vales (© Carol Paterson, Natural England)

CULTURAL INFLUENCES

The sparse distribution and small scale of the villages across the Wooded Vales suggests that the landscape has generally been marginal to widespread settlement and agricultural exploitation for some considerable time. The poor soils associated with the wind-blown cover sands and cold intractable tills are likely to have only been heavily exploited in recent centuries with the advent of deep plough technology and modern fertilisers.

From the late Saxon period, settlements and fields were carved out of previously more extensive areas of woods and scrub. However, woodlands and heaths would have remained important to the local economy, and so were preserved at the fringes of the parish and managed for wood products and communal grazing. The modern landscape appears to preserve this ancient pattern of settlement and land management, with woods and heaths occupying areas along the boundaries of the vales parishes. Place names also provide some evidence of this, with several woodlands being named after a local village, indicating that they once belonged to a particular community. Even within large continuous tracts of woodland, several village names are attributed for different parcels of wood with parish boundaries marking these internal divisions.

During the Medieval period, as populations increased the demand for farmland grew. As such, woodlands would have been cleared, often as a result of assarting. Fragmented woods, irregular field boundaries and isolated belts of ancient trees forming hedgerows are evidence of assarting or woodland clearance across the vales.

Into an ancient framework of sinuous belts of trees and hedgerows defining irregular shaped fields and parish boundaries, the straight and planned enclosure boundaries were established. Many fields were laid out in geometric patterns within the older organic field patterns. Farms were established in the new field systems, often located away from villages in remoter tracts of open farmland. These are commonly characterised by red brick outbuildings clustered around a grand farmhouse at the end of a straight track off the main network of winding rural roads.

The early modern period also saw rebuilding of many villages and hamlets in the Wooded Vales. The use of clay brick and tile roofs was widespread, and many older timber framed cottages were encased in more durable materials, or demolished altogether.

In recent decades, large areas of permanent grassland have been ploughed up, leading to some areas with a predominance of arable farming. The landscape of irregular and straight fields has also been modified by the removal of hedgerows and ditches so that fields can better accommodate large scale machinery.

AESTHETIC AND PERCEPTUAL QUALITIES

The Wooded Vales is a complex landscape with a strong sense of place and rich historic character. Large areas of ancient and species-rich native woodland are juxtaposed with regular blocks of coniferous plantations. Similarly, irregular patterns of ancient fields defined by sinuous hedgerows and tree belts and remnant heaths and acid grasslands contrast with the regular pattern enclosure of fields and farms associated with the period of planned enclosure and modern arable fields where hedgerows have been removed.

The landform of the vales is typically low and subdued. However, rising landform and woodlands characteristically combine to create visual containment and a sense of enclosure. Despite this, some panoramic and extensive views are possible from elevated locations where views are uninterrupted by intervening vegetation.

The Wooded Vales landscape is sparsely settled, with small villages, hamlets and farms evenly distributed across the landscape. Villages are typically small and nucleated.

The landscape has a strong agricultural character, with wide areas retaining a sense of rural tranquillity and intactness, notably where ancient hedgerow patterns, woodlands and winding rural lanes are a prominent characteristic.

LANDSCAPE CHANGE AND MANAGEMENT

BUILT DEVELOPMENT

Forces for Change

The sparsely settled landscape of the Wooded Vales has seen relatively little urban growth, although some expansion and in-fill development is noted in larger settlements, such as Market Rasen, Horncastle and Wragby. This can erode architectural and historic character, whilst creating visual intrusion and extending the urban fringe. The impact on the setting of village churches is particularly important as these are distinctive local landmarks.

Shaping the Future Landscape

The aim should be to protect the distinctive character of the settlements and consider the visual impact of any new development with a requirement for best practice and innovative architectural and planning solutions. Specific mechanisms include Village Design Statements, guiding the design of new development and ensuring the appropriate use of vernacular styles and building materials that minimise impact on local character and utilise eco-friendly high quality design. As well as Village, and where approriate, Town Design Statements, Conservation Area Appraisals can also be important tools. Considering the wooded nature of this landscape, substantial tree planting would also be an appropriate mechanism for containing growth.

AGRICULTURE AND LAND MANAGEMENT

Forces for Change

Agricultural intensification and farm amalgamation are resulting in the loss or damage of many typical landscape features, including traditional patterns of field boundaries, remnants of ridge and furrow, and grasslands. This contributes to a more homogenous landscape, and the effect is particularly evident around settlements, where grazing animals and smaller field sizes contribute to the setting and structure of several villages.

Shaping the Future Landscape

The aim should be to protect existing rural landscape features, whilst encouraging positive management of those features lost or under threat. In particular, the restoration of hedgerows should be given priority, strengthening the field pattern and enhancing linkages between woodlands. An increase in grassland reversion should also be encouraged, increasing the occurrence of semi-natural habitats and creating a more mixed pattern of land use.

FORESTRY AND WOODLAND

Forces for Change

Woodland is a significant component of this landscape, and new woodland planting would be generally appropriate, increasing the overall woodland coverage in the region. However, the landform of the Wooded Vales is typically low and extensive panoramas are possible, often framed by larger areas of woodland. Any new woodland planting should therefore be carefully sited as to avoid disrupting long-distance views and the sense of openness where it exists.

Shaping the Future Landscape

The aim should be to plan new woodland in the most suitable locations. This may include in and around settlements, where woodland could help integrate new development into the landscape, and in more intimate low-lying areas, where woodland could help create a mixed pattern of land-use. Consideration should also be given to the management of existing trees and woodland, enhancing biodiversity value and age structure through new planting and the creation of woodland edge habitats.