APPENDIX 4.2

RELEVANT LANDSCAPE CHARACTER ASSESSMENT EXTRACTS
Summary

The Northamptonshire Vales National Character Area (NCA) consists of low-lying clay vales and river valleys, including the valleys of the Welland and their tributaries. The area is 10 per cent urban, and is often visually dominant. Major road networks that traverse the M1, A45, A6 and A5. This area adjoins the Leicestershire Vales to north-west and has many similar characteristics.

Despite the predominance of built settlements and related levels of tranquillity, this contrasts strongly with a distinctly more rural feel and higher levels of tranquillity particularly along river corridors and in areas of arable and pastoral farmland.

This area is rich in historic character, with country houses, historic parkland, ridge and furrow and open field patterns, especially in the valleys of the Welland, Ise and Nene. These river valleys are striking features with their riverside meadows and waterside trees and shrubs. A feature are the flooded gravel pits and their associated wetlands, which are products of reclamation schemes. These have given rise to some of the most attractive freshwater wetlands in the Midlands, supporting large numbers of birds and wildfowl, especially over winter. The Upper Nene Valley Pits were designated as a Special Protection Area in 2011 in recognition of their wetland bird assemblage, which includes non-breeding greater, lesser, gadwall and European golden plover. The rivers and associated wetlands provide regional ecosystem services such as regulating water flow and availability, as well as providing extensive recreational and environmental resources for the surrounding urban areas.
The Yardley Whittlewood Ridge National Character Area (NCA) is a low and gently undulating limestone plateau commonly referred to locally as the Ridge, stretching in a south-west to north-east direction between the nearby towns of Northampton and Milton Keynes. The Ridge is more distinct in the south-west where it slopes away from the adjacent low-lying claylands. From the top, the land slopes away in most directions, giving long views over the surrounding countryside.

The Ridge contains a variety of semi-natural habitats, including ancient woodland pasture and parkland, hedgerows, lowland meadow and flood plain marsh. It is a well-wooded landscape with a historic feel stemming from the former Royal Hunting Forests of the 13th century around Yardley Chase Whittlewood forests. The Ridge retains a high proportion of ancient woodland of national importance designated as Sites of Special Scientific Interest and a wide range of species, particularly scarce species of butterfly such as the white admiral and wood white.

Despite being close to Northampton, Milton Keynes and Towcester, the Ridge retains a rural character due to its sparse population and lack of major suburban feel, brought to some parts of the NCA by transport infrastructure such as the M1, communication masts on higher ground and formal recreation sites such as Silverstone Circuit and Santa Pod Raceway which have had an impact on tranquility. However, the large number of historic houses, designated landscapes and use of local limestone in village buildings give a strong sense both place and history. The area offers numerous opportunities for quiet recreation, with the parkland and woodland sites in particular being destinations for local communities and visitors from further afield.
5C: UNDULATING MIXED FARMLANDS

KEY CHARACTERISTICS

- Varied landform of broad rolling ridges, steep sided valleys, rounded hills and undulating lowlands;
- Well treed character arising from abundant hedgerow trees, copses and woodlands;
- Upland areas mark a major watershed in Middle England and are the source of major rivers;
- Mixed farming regime with mainly arable land uses on hills and ridges and in fertile lowlands; intact hedgerow networks generally associated with pastoral land uses;
- Sparse settlement patterns with limited modern development; widespread use of local limestone and ironstone in vernacular buildings and churches;
- Network of quiet country lanes linking rural communities;
- Remote, rural and sometimes empty character; and
- Frequent and prominent ridge and furrow and evidence of deserted or shrunken medieval settlements.
LANDSCAPE CHARACTER

The Undulating Mixed Farmlands Landscape Character Type forms an extensive landscape stretching from the Oxfordshire and Warwickshire borders, through Northamptonshire and into the heart of Leicestershire. Despite its scale, varied underlying geology and complex draining patterns that have created a landscape of hills, ridges and valleys, the landscape has a strong visual unity.

Of particular importance to creating this visual unity is the undulating nature of the landform, interspersed with relatively high hills and ridges, a mixed agricultural regime and areas of permanent pasture preserving widespread ridge and furrow, occasional woodlands and spinneys, and a network of well treed hedgerows. The dispersed pattern of villages and farms, and widespread use of the local ironstone rich geology in churches, vernacular buildings and country houses is also significant in contributing to local identity and sense of place.

The rural landscape retains a tranquil and sometimes empty character, particularly where there is limited influence from neighbouring villages and farms, and where winding country lanes and roads have seen little improvement. Landscape condition is generally good, notably where hedgerow networks are well maintained and contain frequent hedgerow trees. Wide areas also have a historic character, with only limited evidence of change and development from recent decades.

PHYSICAL INFLUENCES

A complex series of geological formations underlies the Undulating Mixed Farmlands landscape, influencing localised patterns of landform, land cover and land use. Lias geology predominates, with Scunthorpe Mudstone, Charmouth Mudstone, Marlstone Rock, Whitby Mudstone and Northampton Sand Formations being particularly widespread. At higher elevations, the ironstone-rich Jurassic Marlstone Rock Formation caps several hilltops which often create distinctive elevated ridges and hills generally above 200m AOD, such as Eydon Hill and Burrough Hill. A thick mantle of till is also evident across the landscape, notably in areas forming the catchment of the Tove and Sence and across all but the most elevated areas of High Leicestershire.

The geodiversity interest and potential of this landscape type is varied. Within the Scunthorpe Mudstone there are many thin beds of limestone many of which are distinct and can be found in ploughed fields. They have been locally used for building stone. In the ironstone areas of the Marlstone and Northampton Sand there are many former quarries preserved as RIGS and the stone is readily visible in local buildings. The varied topography offers potential for the conservation of geomorphological sites. In view of the range of geological and geomorphological features, it is important that practices are in place for their care, maintenance and management, and the promotion of their educational and interpretational interest.

Landform features are closely linked to the nature of the underlying geology. High, often steep sided scarps tend to be associated with ironstone bearing rocks, separating sometimes wide flat ridge tops and broad rounded hills. More gently undulating landform features are evident across lower elevations where the Whitby Mudstone forms the predominant bedrock. Wide areas are also cloaked in thick deposits of glacial till which further soften landform features. Many of the steep slopes capped by ironstone have been subjected to landslides with some showing evidence of recent movement but all having the potential for catastrophic movements, with or without man’s interference.
The upland areas of the Undulating Mixed Farmlands mark a major watershed between many of Middle England’s river systems. Indeed, the village of Bruntingthorpe, in Leicestershire, marks the point where tributaries of Thames, Nene, Welland, Great Ouse and Trent can all be identified in a small geographic area.

Slowly permeable and slightly acid loamy and clayey soils are predominant across the landscape, and despite great consistency in the nature of the soils, a mixed agricultural regime is evident; the distribution of arable and pasture largely dictated by variations in landform. On steeper slopes and wetter areas bordering streams and rivers, improved and semi-improved pastures are prevalent, with particularly steep slopes marked by remnant areas of woodland or unimproved species rich grassland. On gently undulating and sloping land, cereal cultivation is notable. Localised outcroppings of the Marlstone Rock and Northampton Sand Formations give rise to free draining acidic soils which are particularly well suited to arable farming. However, whilst arable cultivation is evident, steep sloping land has tended to lead to the retention of acid grassland, scrub and woodland.

The agricultural landscape is punctuated by numerous small deciduous woodlands and spinneys and whilst these are generally not extensive, they are often prominent features when occupying steep slopes or elevated hills and ridges. Several ancient woodlands are also notable, providing significant local wildlife interest in an otherwise agricultural landscape. The notable concentration of ancient woodlands that comprises Leighfield Forest marks the remnants of the medieval royal hunting area of the Forest of Rutland.

Hedgerows and hedgerow trees also contribute to the well treed character of the landscape. In areas of intensive arable production, hedgerows can be low and trees intermittent, particularly where they mark later periods of enclosure. However, elsewhere the hedge cover is generally very good, and contributes significantly to the perception of a well maintained agricultural landscape. Sinuous hedgerows marking ancient boundaries are particularly rich. Indeed, in a landscape with relatively low semi-natural vegetation cover, trees and hedgerows provide important refuges and connective habitats for wildlife.

The thickly wooded uplands and intractable soils across the deposits of till would have been marginal to early agriculture, and settlement of the landscape would have gravitated towards the river valleys, particularly where the overburden had been eroded to expose freer draining gravels. Despite this, evidence of later prehistoric communities can be found across the more elevated hills; sites such as Borough Hill and Burrough Hill, both now country parks, are the sites of large hillforts, located to take advantage of their prominent locations with commanding views across wide areas.

The main evidence for early settlement and farming in the landscape is in the form of Saxon and Scandinavian place names. Their wide distribution suggests that the landscape was less densely settled than more fertile areas elsewhere in the vicinity during the late Saxon and early medieval periods, although as pressure on land increased, it appears that up to the mid 14th century wide areas were being cleared of woodland to establish new nucleated villages surrounded by open fields in ridge and furrow cultivation. It is also to this period
of settlement expansion and prosperity that many village churches date.

From the mid 14th century, the landscape saw widespread depopulation, largely as a result of the limited quality of the soils for cereal cultivation and the actions of landlords who could see greater profits in the reversion of land to grazing for vast flocks of sheep. Today, the landscape displays widespread evidence of this period, with deserted and shrunken villages located throughout the area and the ridges and furrows of former open fields preserved beneath areas of permanent pasture. In some cases villages were not entirely abandoned, but declined to leave just one or two farms where once there was a thriving community.

From the Tudor period, the landscape was also increasingly being enclosed, quick growing thorn hedges being used to demarcate boundaries and divide up the landscape. This continued until the widespread Parliamentary enclosure of the remaining open land in late 18th and early 19th centuries resulting in a complex patchwork pattern of fields overlying much older field systems.

The growing wealth of landowners, particularly from the Tudor period, led to further developments in the landscape. Churches were embellished and many villages saw the construction of substantial stone cottages, often utilising the distinctive iron-rich Northampton Sand and Marlstone geology.

Wealthy landowners also established grand residences and parks. Many had earlier origins as hunting enclosures for the nobility. However, others were created on newly enclosed lands and sometimes preserve the remains of abandoned villages and their open fields beneath areas of parkland such as at Baggrave and Lowesby.

Whilst several early houses remain largely intact, as at Ashby St. Ledgers and Canons Ashby, others such as Althorp House was substantially remodelled, mainly in the 18th century, to reflect the growing fortunes and taste of the owners. Again, as with vernacular cottages in the villages, stone was sourced locally, and as such these fine houses provide a tangible link to the underlying geological framework and have strong visual unity with their surroundings.

Although the industrial age saw the construction of canals and railways, the landscape was largely agricultural and there was only limited expansion of settlements or rebuilding in brick and tile. The 20th century saw relatively little change in the rural landscape although as with some other areas in the region, a decline in hedgerow networks and the consolidation of fields to form large parcels of land for intensive arable farming has had a notable effect. Some localised influences have also occurred as a result of modern infill and village edge development and major infrastructure, such as communications masts on more elevated hilltops.
AESTHETIC AND PERCEPTUAL QUALITIES

There is considerable variety across the Undulating Mixed Farmlands landscape. Exposed and elevated areas provide wide sweeping panoramas across neighbouring lowlands, with nearby hills and ridges punctuating the skyline. Elsewhere, and notably along valleys or below steep scarp slopes, the landform obscures middle and long distance views to create a more intimate and enclosed landscape. Despite these contrasting visual characteristics, the landscape has a strong visual unity, largely arising from the mixed agricultural regime, widespread ridge and furrow and generally well maintained hedgerow networks. Whilst areas of woodland are limited, the landscape also has a well treed character, which further contributes to it being perceived as being in generally good condition.

Where hedgerow patterns have seen little fragmentation and local villages have seen limited late 20th century growth and development, the landscape retains a strong historic character, with tangible evidence of land use and settlement stretching back into the medieval period. Of particular significance are the quiet winding rural lanes between long established villages, hummocky landform associated with ridge and furrow farming and other medieval features such as deserted or shrunken villages and manorial complexes preserved beneath areas of permanent pasture.

Vernacular architecture, particularly where the locally sourced Marlstone and Northampton Sand Formations have been used, also provides visual unity in the landscape. This is further enhanced by older churches and large country houses which also display the use of these ironstones with their distinctive warm brown colour.

The landscape has a strong agricultural character. Despite widespread settlement, and the local influence of large towns such as Daventry and major transport infrastructure routes, large areas possess an empty and tranquil character.

LANDSCAPE CHANGE AND MANAGEMENT

BUILT DEVELOPMENT

Forces for Change

The Undulating Mixed Farmlands have seen limited late 20th century growth and development and many areas remain remote and rural. However, modern mixed-use development is evident on the fringes of larger settlements such as Leicester, Northampton and Daventry and in and around those villages closest to the main towns. This creates visual intrusion and extends the urban fringe. Further expansion of Northampton and Daventry can be anticipated as these lie within the MKSM Growth Area. Similarly, Leicester forms part of the 6Cs Growth Point although at present, the main directions of growth are proposed to the north and west of Leicester, and outside of the Undulating Mixed Farmlands. These areas are likely to experience considerable development pressure and high levels of growth with mixed use development on the fringes of the urban areas.

Shaping the Future Landscape

The aim should be to protect the character of the countryside and consider the visual impact of any new development included areas of large scale mixed use development associated with the identified Growth Areas. Specific mechanisms include best practice innovative architectural design and planning solutions, and planting of new trees and woodland, helping to integrate new development into the landscape. Care should also be taken to prevent coalescence, ensuring separation is maintained between the urban fringe and surrounding settlements. The findings and guidance of Landscape Character and Historic Landscape Assessments will together provide tools to inform the development of major urban extensions around the main settlements of Northampton, Daventry and Leicester.
Many villages would benefit from Village Design Statements, guiding the design and scale of new development, and ensuring it is appropriate to the existing 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 innovative architectural solutions that utilise eco-friendly and high quality design.

**INFRASTRUCTURE**

*Forces for Change*

Localised road improvements are evident in the road network in order to better connect isolated villages with larger towns and cities. This has an urbanising effect and brings a degree of standardisation to the landscape.

The aim should be to manage road improvements, maintaining the existing character of the rural road network, whilst having regard to user and safety requirements. Any road improvements should be carefully planned and designed to provide positive environmental and landscape enhancements and strengthen prevailing character. This may include grassland, hedgerows and trees along road verges to enhance character and increase the occurrence of semi-natural habitats.

**ENERGY PROVISION**

*Forces for Change*

Although not currently characteristic of the Undulating Mixed Farmland Landscape Character Type, the more elevated areas face pressure for wind farm development, including the potential for cumulative impacts. Such development can create prominent landmarks and reduce the sense of remoteness and isolation.

*Shaping the Future Landscape*

The aim should be to protect the character of the landscape by appropriately siting and designing new wind farm installations, and also considering any potential cumulative effects. There is potential for strategic regional and sub regional level guidance on commercial wind energy schemes, informed by the EMRLCA and other studies. In addition, planning guidance should be produced at the county and/or district level where necessary, establishing the most appropriate sites for development and setting out the criteria against which new applications will be assessed.

**AGRICULTURE AND LAND MANAGEMENT**

*Forces for Change*

While the rural landscape retains a mixed land-use, with areas of pasture and arable, there is evidence of agricultural intensification, resulting in the loss or damage of many typical landscape features. This includes loss of hedgerows and hedgerow trees and damage to areas of ridge and furrow. There is also a proliferation of new large scale agricultural buildings, reflecting the loss of smallholdings and the general increase in farm size.
**Shaping the Future Landscape**

The aim should be to protect the structure and unity of the landscape and consider the impact of any new structures and changes to farming practices. New large scale agricultural buildings should be carefully sited, away from visually prominent locations and amongst existing buildings where possible. Specific design guidance for farmsteads may be appropriate, establishing the criteria for new development. Consideration should also be given to the management of those features lost or under threat. In particular the restoration of hedgerows should be given priority, creating a stronger pattern of land use and reinforcing the well-treed character.

**FORESTRY AND WOODLAND**

**Forces for Change**

Woodland cover and type varies dramatically across the landscape, with generally more woodland within upland areas, and a range of broadleaved, conifer and mixed plantations. New woodland planting should therefore be considered at a county level, reflecting local variations. However, opportunities exist to use new tree planting and small-scale woodland as screening of new residential and agricultural development and to link existing woodlands.

**Shaping the Future Landscape**

The aim should therefore be to manage existing trees and woodland, including the protection of ancient semi natural woodlands including measures to reduce their fragmentation. In addition new tree planting should be encouraged to ensure a varied age structure and creation of woodland edge habitats to enhance their landscape and biodiversity character.
6 UNDULATING CLAYLANDS

CHARACTER AREAS

6a  The Tove Catchment
6b  Hackleton Claylands
6c  Bozeat Claylands

KEY CHARACTERISTICS

• Boulder Clay deposits overlie almost the entire landscape, revealing little surface expression of the varying underlying solid geology;

• alluvium conspicuous along the tributaries and upper reaches of rivers that drain the area;

• broad, elevated undulating landscape that is more elevated to the west shelving eastwards and drained by numerous broad, gentle convex sloped valleys;

• wide panoramic views across elevated areas, though the undulating landform creates more contained and intimate areas;

• a productive rural landscape with an equal balance of arable and pastoral farming with the former predominating on more elevated land and often larger in scale, although arable land can be found along valley bottoms where sand and gravel deposits are located;

• improved and semi improved pastures located along narrow floodplains and sloping land bordering them, often more intricate and smaller in scale;

• large woodlands are not a characteristic feature, although woodland in surrounding landscape types, small deciduous copses and hedgerow trees can together create the sense of a well-wooded character;

• concentrations of small woodlands apparent around designed parklands;

• hedgerows are often low and well clipped emphasising the undulating character of the landscape with scattered hedgerow oak and ash trees;

• post and wire fencing frequently reinforces gappy hedgerows, in particular where pasture is the current land use;

• numerous villages located throughout the landscape with varying morphology;
• settlement beyond the villages include scattered Enclosure age farmsteads and isolated dwellings, located at the end of short access tracks and adjacent to the roadside;

• a long settled landscape with evidence dating back to the Bronze Age and evidence of Roman occupation;

• many historic remnants evocative of the medieval period, including rural villages, moated sites, and extensive areas of ridge and furrow;

• historic parklands provide important landscape features along with remnants of the industrial age, including disused railways and canals;

• minor roads located on interfluves avoiding river valleys and emphasising the natural grain of the landscape; main routes take a direct course from the northwest to southeast; and

• recreational opportunities are diverse, including listed manors and parkland estates, canal trips, llama trekking and numerous national trails.

LOCATION AND INTRODUCTION

The Undulating Claylands are located in the south of the county stretching from Brackley in the south, northeastwards to Irchester. This landscape type covers a significant area and appears as a wide belt of rolling countryside that becomes less extensive as it extends eastwards. It borders the distinctive Low Wooded Clay Ridge landscapes to the south, and is bounded to the north by the Undulating Hills and Valleys landscape character type.

This landscape character type is similar in many respects to the Undulating Hills and Valleys to the north. However, a thick mantle of boulder clay has created a soft, undulating landscape where the influence of the underlying solid geology has been obscured. The landscape is deeply rural and sparsely settled, with small villages and farmsteads scattered throughout the undulating topography.

The principal area of the Undulating Claylands lies to the north of the Whittlewood Plateau and Low Wooded Clay Ridge. It forms the catchment of the Tove, which originates to the north of Sulgrave. The river is fed by numerous tributaries and becomes a significant landscape feature east of Towcester. From here it forms part of the River Valley Floodplain landscape character type. As the fringes of this character area drain into the River Cherwell and River Great Ouse it cannot be regarded as a true river catchment. In the context of the county assessment, however, it forms a separate physiographical unit related to the Tove catchment area. To the east of the M1 a second character area has been identified, comprising the Hackleton Claylands. This character area is adjacent to the Tove catchment. However, it drains into the Nene and as such has been assessed as being a distinct character area. A third area of the Undulating Claylands is located to the south of the Nene around Bozeat. Physically, the area shares many characteristics with the Salcey Forest and Yardley Chase character area. Due to the marked absence of woodland, however, it has not been included as being a part of the Low Wooded Clay Ridge landscape character type.

PHYSICAL INFLUENCES

Geology and Soils

Beneath a mantle of boulder clay, the Undulating Claylands are underlain by various geological formations, including Blisworth Limestone and Northampton Sand Formation. These rock units tend to form the more elevated areas, with Whitby Mudstone Formation of the Lower Jurassic being more extensive in low-lying areas. Whilst the underlying solid geology has influenced the main landform features and patterns of drainage, it has little surface expression due to the thick mantle of boulder clay. This superficial covering was deposited by glacial ice and formed from un lithified rocks, sands and clays that have their origins as far north as Derbyshire and Lincolnshire. The mantle has been removed in a few isolated areas, principally bordering streams draining the plateau, where, in the past, water flows have been of sufficient power to wash the drift geology off the hills and valley slopes downstream to be sorted and re-deposited as river terrace gravels and alluvium. Indeed, limited areas of river terrace gravels are conspicuous along many river channels. Where glacial deposits are absent, small former quarrying sites are conspicuous, particularly on limestone and on thin bands of ironstone. This is evident around the upper reaches of the Tove near Sulgrave.

Alluvium is conspicuous along the upper reaches of the Tove, and its numerous tributaries, where it forms a narrow band bordering watercourses. To the east of Towcester, the floodplain becomes wider and a more significant feature of the landscape, and has been classified in the county’s River Valley Floodplain landscape character type.
Soils throughout the landscape are characteristically stony and contain a wide range of pebbles and rock fragments. Characterising the western section of the landscape type is a predominance of slowly permeable, seasonally waterlogged clayey and fine loamy over clayey soils with smaller packets also showing evidence of fine silty over clayey and clayey soils. Occasional isolated areas of well drained brashy fine and coarse loamy ferruginous soils over ironstone are also apparent. To the east of the landscape type, slowly permeable calcareous clayey soils become more predominant with a large area of fine loamy over clayey soils with slowly permeable subsoils and slight seasonal waterlogging, associated with similar but wetter soils to the northeast. Small pockets of shallow, locally brashy well drained calcareous fine loamy soils over limestone are evident throughout the eastern section of the landscape type, along with small areas of slowly permeable, seasonally waterlogged clayey and fine loamy over clayey soils.

**Landform**

Glacial deposits are of sufficient thickness to have formed a soft, undulating landscape. However, the underlying landform is influenced more directly by the underlying solid geology. The general pattern is that more elevated landscapes are located on the western limits of the landscape type. Here, Ironstone interfluves around the headwaters of numerous streams to the north of Canons Ashby and Maidford rise to 180m ASL. To the south, Ironstone and limestone geology has formed an arc of high ground rising to 170m ASL. This forms the boundary of the landscape type and the watershed between the Tove and Cherwell catchments. The landscape slopes eastwards from these high points. Rivers and streams have dissected this general pattern to create a dendritic pattern of narrow valleys draining through the landscape to the main rivers of the Tove and Nene. As the streams are of limited scale the subtle form of the many undulations do not ‘read’ in the landscape as river valleys. This leads to the landscape appearing as a complex series of interlocking undulations. The scale of the undulations varies and, therefore, influences the sense of intimacy and enclosure locally; indeed on some upland areas where undulations are gentle, and woodland sparse, wide panoramic views are possible giving the landscape an open, plateau like character. The lowest areas of the landscape occur bordering the Nene and Tove River Valley Floodplains. From these locations, undulating landform creates a more intimate landscape where views are restricted to the middle distance.

**Hydrology**

Streams originating on the uplands drain the majority of the Undulating Claylands to the Tove, a tributary of the River Great Ouse, which runs eastwards through the centre of the Tove Catchment landscape character area. The river originates to the north of Sulgrave and is fed from the north and south by a dendritic pattern of streams. Character areas to the east both drain northwards into the Nene through neighbouring areas of the Undulating Hills and Valleys landscape character type. Gently flowing streams have eroded broad, gentle, convex sloped valleys that are responsible for creating the landscape’s undulating landform. The lower reaches of the Tove and a number of its tributaries have narrow belts of alluvium along the floor of the valley. However, the course of the rivers and streams is difficult to discern in the landscape. Streams tend to be small, and landform, streamside vegetation and hedge lines often obscure views to them. It is often only possible to trace the course of a stream by identifying linear belts of riparian habitat and tree species such as alder and willow. To the east of Towcester, floodplains become wider and a more significant landscape feature.

**Land Use and Land Cover**

Across much of the landscape, there is a roughly equal balance of arable and pasture farming. Improved and semi improved pastures tend to be located along the narrow floodplains of streams and rivers but are also evident on sloping land bordering them and in close proximity to the numerous small villages that are located throughout the landscape. Here, field patterns are more intricate and variations in colour, texture and land use pattern ensure that local character is more intimate than elsewhere. These verdant fields are interspersed with small areas of calcareous and neutral unimproved grasslands. Unimproved pastures are not prominent in views due to their being located along valleys that are not often visible from roads travelling through the landscape. Arable farming tends to be located on the more elevated interfluves but can also be found along valleys, particularly on sand and gravel deposits. Due to the nature of landform, most views across the landscape encompass wide areas of arable farming and cereal cultivation appears, therefore, to be the predominant land use. Indeed where large, monochromatic fields fill wide panoramas, the landscape resembles the Clay Plateau landscape to the north.

**Woodland and Trees**

Whilst large wooded areas are not characteristic of the Undulating Claylands, the landscape can sometimes appear well-wooded. This occurs where woodlands on the neighbouring Low Wooded Clay Ridges, and the small belts of deciduous woodland, coalesce with the occurrence of hedgerow trees and shelterbelts surrounding farms and houses. Where present, woodlands tend to be narrow belts of deciduous trees, often following contours and thus emphasising landform. Concentrations of small woodland belts can be observed in designed parklands such as Easton Neston Park, Stoke Bruerne Park and Courteen Hall to the north of Roade. Whilst the majority of woodlands are contained within the parkland boundary, the surrounding countryside is often more heavily wooded, reflecting the strong influence county estates had on wide tracts of the landscape. Few woodlands are ancient in origin. Where present, many appear to comprise mixed or coniferous tree species, indicating that significant replanting has taken place. The Forestry Commission own and manage a number of these.
Woodlands are often visible on the southern horizons forming a dark backdrop to agricultural landscapes that 'fill' the foreground. They are an important means by which distances can be judged and also serve to emphasise the relative openness of some areas of the Undulating Claylands.

Hedged field boundaries often contain ash and oak as mature and semi-mature hedgerow trees. Where present, they are important in filtering long distance views and, therefore, help to reduce the openness and scale of the landscape where woodlands are not significant.

**HUMAN INFLUENCES**

**Buildings and Settlement**

Numerous villages are located throughout the landscape. They tend to be small, with settlements often sited on elevated areas above watercourses. Village morphology varies. Linear settlements are aligned along roads passing through the landscape. Nucleated settlements tend to occur at the junction of numerous roads, with the junction often marked by a church, around which sit the settlement’s oldest dwellings. A number of nucleated villages have expanded since the post war period, and the outskirts are now marked with post war housing.

Beyond the villages the landscape is well settled, with numerous enclosure age farms located throughout the hills and valleys. The position of farms varies. Some are located along road sides, whereas others occur at the end of tracks at right angles to the main route through the area.

**Heritage Features**

This is a long settled landscape, with visual evidence for occupation stretching as far back as the Bronze Age. To the north of Sulgrave is an oval-shaped mound known as Barrow Hill. This is the remains of a Bronze Age bowl barrow, built as a funerary monument some 3 – 4,000 years ago. Large exposed stones on the west side hint at internal burial chambers. The barrow is mostly intact, although the ditch that would have surrounded the mound has been lost. Wide views over the surrounding landscape are possible from this location and offer an opportunity to observe the landscape as a territory for which the monument was probably constructed to demarcate. Later evidence for occupation can be found in the form of Watling Street, which runs through the Tove Catchment character area. This Roman Road is a significant landscape feature and was built to link London to the port in Holyhead and continues in use to this day as a major route through the county.

Beyond these specific sites, many rural villages and areas of countryside are evocative of the medieval period. The rural landscape contains numerous small villages, often containing an old stone church and vernacular stone buildings. Many are designated as Conservation Areas on account of the fine architectural heritage they contain. A number of villages are closely bordered by a Manor Farm or moated site indicative of the settlements medieval past. This is echoed in the large areas of ridge and furrow that can be observed in fields around many of the villages. Indeed some boundary hedges that define the outer limits of fields containing ridge and furrow, such as the one along the parish boundary to the south of Sulgrave, pre-date many of the surrounding hedges. By analysing the number of species present in the hedge it is believed to be over five hundred years old. A significant area of ridge and furrow may be identified on the outskirts of Weedon Lois beneath areas of permanent pasture. Here, a manor house and fish ponds are also evidence of occupation during the medieval period. A prominent mound next to the village green was the site of the Norman Noble, Gilo de Pinkney’s castle, itself sited on the ‘hill with the temple’ from where the village’s Saxon name is believed to originate. A similar castle is thought to have also been built by Gilo on his lands at Sulgrave.

Historic parklands and gardens are also an important feature. Easton Neston is perhaps the most prominent, its influence extending beyond the boundary of the early 18th Century park in to the surrounding landscape in the form of long avenues of trees. Long avenues running south from Castle Ashby are also evident in the landscape, within the countryside to the east of Denton.

Industrial age sites are also an important landscape feature in places. Numerous sections of disused railways criss-cross through the landscape and are often visible as raised linear embankments, often cloaked in hawthorn and scrub. The Blisworth Tunnel is also a prominent feature, if limited in its visual influence. This was constructed through the Undulating Claylands between Stoke Bruerne and Blisworth in the late 18th and early 19th Century and links London Canals to those in Birmingham.

**Boundaries and Field Patterns**

Large and medium to large fields predominate across the Undulating Claylands, particularly on the more elevated areas, although this is not always the case. These fields are often used for arable production. Small and small to medium sized fields are more common where rolling landform and steeper slopes are prevalent, and also in the vicinity of villages. Sub regular field shapes are prevalent across the landscape. Discontinuous fields are significant in some areas, notably on the Ironstone to the north of Canons Ashby and the limestone around Piddington.
Field hedges tend to be low and well clipped and give the landscape a well-maintained and managed character. Field boundaries are often aligned to follow landform and thus emphasise the undulating character of the landscape. Where hedgerows are gappy, post and wire fencing is used to reinforce field boundaries, particularly where pasture is the current land use, and along road verges. Hedgerows characteristically contain hedgerow oaks and ash. These are important landscape elements and filter long distance views to limit the large-scale character of the landscape and provide some shelter where woodlands are not prominent landscape features.

Communications and Infrastructure

Roads through the Undulating Claylands tend to follow elevated interfluves to avoid river valleys and the pattern of roads therefore mirror that of rivers and streams, further emphasising the natural grain of the landscape. Field boundaries similarly follow this alignment, and the general grain dictated by landform and associated road alignment. Settlements are also influenced by the road patterns with numerous ancient villages sited at the junction of two or more roads, or simply along them where roads do not intersect. The main routes through the landscape do not follow this pattern, however, and take a direct course from the northwest to the southeast. The A5 Watling Street is perhaps the most interesting. Although forming a linear route across the landscape, typical of Roman Road construction, the alignment has influenced the subsequent pattern of fields that occur along its route. By contrast the M1, and the mainline railway between Milton Keynes and Northampton, are much more of a recent imposition on the landscape and whilst sharing their alignment with the A5 they do not have the same relationship with boundary features that abut it. The orientation of these routes through the Undulating Claylands has less to do with local landform and more to do with the proximity of London and the arrangement of key destinations in the Midlands and the northwest.

Urban areas, although on the edge of the landscape type and relatively limited in scale, are visible and have an impact on this rural, yet well settled landscape. High voltage pylons passing over the Undulating Claylands also provide prominent vertical elements in this relatively open landscape.

Recreation

Recreational opportunities vary across the landscape type to include manor houses and parkland landscapes open to the public, such as the National Trust’s Canons Ashby Manor and woodlands managed by the Forestry Commission that are open for public enjoyment. Access across the landscape is relatively extensive, with the Macmillan Way, Knightley Way, Grafton Way, Grand Union Canal Walk and Midshires Way crossing the landscape type. A number of minor footpaths and bridleways also provide access to areas that would otherwise remain inaccessible. From the village of Stoke Bruerne canal trips are possible along the Grand Union Canal and Llama Trekking is available at Weston. Heritage features such as Barrow Hill also provide areas of interest.

Aesthetic and Perceptual Qualities

Re-occurring land cover within the landscape type creates a strong angular pattern imposed on an undulating, curved landform. Hedgerows containing the fields rolling over the landscape emphasise its undulating form. From elevated areas where particularly long distance, panoramic views are possible, a sense of openness prevails. A more intimate character exists, however, where views are limited by woodland in surrounding landscape types. Woodlands within the Undulating Claylands, where present, also combine with the undulating topography to contain longer distance views. This is a simple, and in places colourful landscape, with texture provided by hedgerow and streamside trees and occasional woodland blocks punctuating the landscape. A sense of unity prevails over the landscape due to the continuity of land cover. In places, gappy hedgerows and stag headed trees provide a sense of fragmentation.

Local Distinctiveness, Landscape Condition and Landscape Change

On the whole the Undulating Claylands are a well maintained and managed landscape of moderate scenic quality. Local variations in condition are apparent, however, and frequently depend on the extent to which hedgerows are managed. Across the landscape type, a number have become gappy and seen the introduction of post and wire fences. A number of trees have also become stag headed. The introduction of water towers has created prominent vertical elements across the landscape along with new infrastructure elements and associated facilities, such as the M1, lighting and signage. At a county scale the landscape is generally unremarkable although occasional estate houses and associated parkland are of note and the wooded horizon of the surrounding Low Wooded Clay Ridge are distinctive from the landscape type. Despite the open and expansive character from more elevated areas of land, the landscape overall has a relatively sheltered character due to the undulating landform and intervening vegetation.
The Tove Catchment Character Area lies to the southwest of Northampton and comprises the largest of the Undulating Claylands. The area forms the catchment of the River Tove, which originates north of Sulgrave. Flowing eastwards from more elevated land to the west of the area, the river is fed by a dendritic pattern of streams from the north and south until the river itself becomes a significant landscape feature east of Towcester, forming part of the River Valley Floodplain. The streams have eroded broad, gentle, convex sloped valleys, resulting in the distinctive undulating landform. The streams are of limited scale, however, with undulations therefore varying in size, with many not evident in the landscape as river valleys. A section of the Grand Union Canal also passes through the area from Blisworth to south of Stoke Bruerne. The Blisworth Tunnel comprises an underground section of the canal, and is identifiable by a series of locally prominent airshafts visible as a series of mounds in the landscape.

Land cover is typically a combination of both arable and pasture farming with improved pasture largely located around village settlements bordering the River Tove and its tributaries, and also on sloping valley sides. Where pastoral fields predominate, a more intricate and intimate pattern prevails.

A significant number of the woodlands are also ancient woodland. Woodland associated with estate parklands are particularly significant in the character area. The 300 ha estate of Easton Neston House includes a Grade II* listed building with formal gardens, pleasure grounds and landscaped park. Within the wider estate are a number of smaller woodland blocks, predominantly broadleaved with some mixed areas, creating a locally well-wooded landscape. The 150 ha Grade II registered landscaped park at Courteenhall, developed in 1791 by Humphrey Repton, and Stoke Bruerne Park are both notable. The latter comprises two 17th Century pavilions, a colonnade by Inigo Jones and terraced lawn, herbaceous borders, herb gardens, fountains and pools. Both parks include a significant number of predominantly broadleaved woodlands, although some have a mixed composition. Woodland at Stoke Bruerne is also ancient. Surrounding the southern boundary of the character area are significant woodland blocks within the Low Wooded Clay Ridge, which although beyond the area, create a notable wooded horizon in many views to the south.

Whilst woodland is not a prominent feature on the Undulating Claylands, there are a number of moderately sized woodland blocks. These create a more localised woodland character in places that contain views, and result in a more intimate landscape. Although the majority of woodlands are of a broadleaved composition, Plumpton Wood is mixed and Maidford Wood and Seawell Wood are coniferous. All three are open to the public and managed by the Forestry Commission.
The landscape is relatively well settled with numerous villages scattered throughout the area. Whilst the majority are relatively small in size, Blisworth, Roade and Greens Norton are slightly larger, with evidence of post-war development on the edge of the settlements. Village morphology varies greatly within the area. Villages such as Moreton Pinkney have a linear form, whilst Blakesley has developed around road junctions. Prominent within many villages are church spires, providing local landmarks throughout the area and punctuating the horizon. Spires at Blisworth, Stoke Bruerne, Tiffield, Green Norton, Wappenham and Weedon Lois are particularly notable. The landscape beyond the villages is generally well settled with numerous farms and dwellings, although some areas are devoid of any development and often have an unoccupied character. Communication routes are extensive in the area, including the A43, A5 and A508. Glimpsed views are also possible towards the M1 on the northeastern edge of the character area.

Various features of heritage interest are scattered across the Tove Catchment. Areas of ridge and furrow are in evidence and may generally be found in close proximity to villages. However, isolated patches can also be observed throughout the rural landscape. As well as the three registered parks and gardens, Canons Ashby village located along the western boundary is home to Canons Ashby House. Owned by the National Trust, the Elizabethan manor has remained largely unaltered since around 1710 and the formal gardens created by Edward Dryden provide panoramic views of the surrounding parkland and church, which is all that remains of the Augustinian priory. Sulgrave Manor also provides an important heritage feature within the landscape. It is a modest manor house from the Shakespearean period, and was home to the ancestors of George Washington. The site of two medieval villages, Kirby and Radstone can also be identified in the landscape by various earthworks overlain by pastoral grazing land. Recreational opportunities in the character area include sections of the Grand Union Canal Walk, Midshires Way, Knightley Way, Grafton Way, canal trips at Stoke Bruerne and Llama Trekking.

The Hackleton Claylands Character Area, located on the northeastern edge of the Tove Catchment, comprises a number of tributary streams draining into the River Nene, which have created the landscape’s undulating landform. Land cover across much of the area is characterised by a general predominance of arable land in large fields. Areas of improved pasture are, however, located around village settlements, including Denton and Quinton. These are frequently smaller in scale. Pockets of calcareous grassland are also evident, in particular adjacent to the stream northeast of Quinton and along the line of the dismantled railway. Woodland cover within the character is generally limited. Small broadleaved woodlands dominate, including High Covert, The Oaks and streamside woodlands northwest of Quinton. Preston Wood is also of a broadleaved composition and the only ancient woodland in the character area. The woodlands in the surrounding area, including Salcey Forest and Yardley Chase, have a significant influence on the area, limiting views south and southeast. Wide panoramic views are otherwise possible over the undulating landscape.
CHARACTER AREAS

13a Middleton Cheney and Woodford Halse
13b Bugbrooke and Daventry
13c Long Buckby
13d Cottesbrooke and Arthingworth
13e Stoke Albany and Ashley

KEY CHARACTERISTICS

• Extensive undulating and productive rural landscape stretching across the west of the county;
• cohesive and recognisable unity of character despite scale and extent;
• variations in the underlying geology influence local landform;
• watercourses form part of three principal river catchments of the Cherwell, Nene and Welland;
• reservoirs and man made lakes are conspicuous features in the local landscape displaying a wide range of size, function and age;
• navigable canals are an important visual component of the landscape and linear wildlife and recreational asset;
• mixed farming predominates across the landscape although local land use and field patterns are strongly influenced by changes in landform;
• numerous small deciduous woodlands, copses and shelterbelts punctuate the rural landscape;
• hedgerow trees, within the strong hedgerow network, contribute to the perception of a well treed landscape and combine with other landscape and landform features to create an intimate, human scale landscape;
• strong historic character underlies this deeply rural landscape;
• numerous villages linked by winding country lanes contribute to rural character; and
• communication routes and urban influences and infrastructure have, where present, eroded local rural landscape character where present.
LOCATION AND INTRODUCTION
The Undulating Hills and Valleys represent an extensive and complex rural landscape character type that occupies almost a third of the county. It is found along the western fringes of Northamptonshire and stretches in a broad arc around the source of the Nene from Croughton in the south to Ashley in the north, overlooking the broad floodplain of the Welland.

The landscape is formed from a range of geological formations ranging from a predominance of limestone in the south to areas of mudstone and ironstone in the north, overlain by intermittent deposits of glacial till and glaciofluvial sand and gravel. Landform is equally complex and a range of landform features are evident ranging from elevated hills and ridges rising to 180m ASL on ironstone geology and rolling lowlands bordering rivers and streams. The unity of character within this landscape type is derived from a consistent pattern of mixed agricultural land use and land cover and rural settlement, tied together by an intricate network of hedgerows and small copses and shelterbelts.

PHYSICAL INFLUENCES

Geology and Soils
A complex series of geological formations are exposed across the Undulating Hills and Valleys, influencing localised patterns of landform, land cover and agricultural land use. In the south of the area, bordering the Croughton, Aynho and Farthinghoe Limestone Plateau, a succession of Lias Group rocks outcrop with the oldest Charmouth Mudstone Formation progressively overlain by Dyrham Siltstone, followed by the relatively more resistant Marlstone Rock, and finally the Whitby Mudstone Formation. These are exposed on the sides of westward flowing tributary valleys.

Although mudstones and siltstones predominate, localised capping of Northampton Sand Formation Ironstone has left distinctive elevated ridges and hills, which rise to a maximum elevation of 180m ASL to the east of West Haddon, and echo the more extensive and dramatic hills of the Ironstone Uplands landscape character type.

Drift geology is not as widespread as in the eastern and southeastern part of the county, and deposits tend to be localised and restricted to elevated hills, and the fringing landscape character types on which drift geology is a significant component, such as the Undulating Claylands and the Clay Plateau. Significant areas of drift geology are evident bordering the main river channels, which themselves are floored by alluvial deposits. Glacial till is the predominant form of drift geology across the landscape, although glaciofluvial sand and gravel are also extensive particularly along the upper reaches of the Nene and its westernmost tributaries between Nether Heyford and Daventry.

Soil cover across the landscape type is particularly complex with the most southerly area comprising slowly permeable, seasonally waterlogged clayey soils, with similar fine loamy, over clayey soils; well drained brashy fine and coarse loamy ferruginous soils over ironstone; seasonally waterlogged fine loamy over clayey soils; and fine silty over clayey, and clayey soils. Whilst soils further north have a similar composition, soils with only slight seasonal waterlogging are all evident. Smaller pockets of slowly permeable calcareous clayey soils are also present together with deep, well drained coarse loamy and sandy soils, locally over gravel, and fine loamy over clayey soils with slowly permeable subsoils and slight seasonal waterlogging, associated with similar but wetter soils.

Landform
Landform features are closely linked to the underlying solid geology. High, often steep sided hills tend to be formed from ironstone deposits, with other lower gentler hills being formed from various other rock types, principally mudstone and siltstone. The higher areas of landform act as watersheds between numerous streams and rivers, which have carved a complex drainage pattern and created a soft undulating landscape of interlocking hills between watercourses. The most elevated areas of landform occupy the ironstone ridge between West Haddon and Long Buckby, which in many respects resembles the Gulsborough Ironstone Uplands to the north.

Hydrology
Streams flowing through and originating in the Undulating Hills and Valleys form part of the region's three main river catchments: the Cherwell, the Nene and the Welland. In the south of the landscape type, rivers drain westwards off the Limestone Plateau watershed to the Cherwell, which flows southwards alongside the M40. To the north and within the Bugbrook and Daventry character area, Ironstone hills form a high watershed between the Cherwell and Nene catchments. Streams originating on these hills flow generally eastwards where they form the upper reaches of the Nene. Indeed the source of the Nene may be found in woods surrounded by hills to the south of Staverton. Further to the north rise two of the Nene's principal tributaries, the Brampton and the Ise. In the Stoke Albany and Ashley landscape character area, streams flow northwards eventually to join the Welland.
Man made reservoirs and lakes are also conspicuous, although widely spaced across this expansive undulating landscape. Reservoirs at Hollowell, Ravenshorpe, Drayton and Daventry are all sited in the upper reaches of streams that drain ultimately into the Nene. Smaller water bodies have also been created and are often sited in historic parklands such as Kelmarsh, Cottesbrooke Park and Fawsley Hall. Many water bodies were created prior to the landscape movement of the 18th and 19th Centuries, with numerous medieval fishpond sites also evident. Natural water bodies are also apparent in the landscape, such as the linear ponds located in tributaries of the Cherwell to the north and south of Aynho.

Navigable canals are a key component of the landscape. The Grand Union Canal forms the boundary of the landscape character type between North Kilworth, Mill Farm and Crick, entering the Undulating Hills and Valleys via the Crick Tunnel from where it winds between the undulations to Buckby Wharf. Here, a second arm of the canal joins the main route and links the Grand Union Canal to the Oxford Canal. After a running for a short distance through the Broad River Floodplain of the Nene and its western most tributaries, the canal extends southwards past Bugbrooke to Blisworth.

Mixed farming predominates across the landscape. Arable and pasture farming is evident in equal measure with their distribution closely linked to patterns of landform. On steeper slopes and wetter areas bordering streams, improved and semi improved pasture are more prevalent often interspersed with areas of neutral and calcareous grasslands. On more elevated, drier and gently sloping land, however, cereal cultivation and arable horticulture are more widespread. Fields tend to be defined by moderately tall hedgerows and often contain many hedgerow trees. This creates an intricate and attractive patchwork landscape.

The undulating agricultural landscape is punctuated with numerous small deciduous woodlands, copses and shelterbelts. These are distributed evenly across the landscape and tend to be located on steeper areas of land and bordering watercourses. Few are ancient in origin. Those identified as ancient woodlands tend to be larger and congregate along the rolling north facing slopes between Preston Capes and Church Stowe and to the east of Little Brington.

Hedgerow trees and small areas of tree planting surrounding farmsteads are important locally and contribute significantly to local landscape character and to the perception that this is a well treed landscape. Trees and woodlands also limit views and combine with landform to add to the perception of a human scale, intimate landscape.

The principal settlements in and bordering the Undulating Hills and Valleys are the urban areas of Daventry and Brackley. The western fringes of Northampton are also dominant in views from landscapes in the vicinity, and urban influences are evident along its fringes, particularly in close proximity to the M1 to the north of Rothersthorpe where numerous transportation routes converge.

Beyond these urban areas and their zone of influence, the landscape is deeply rural with villages and towns interspersed with small farms and hamlets. Village morphology varies with compact and linear types evident. The density of villages and rural settlement also displays variations, with villages being more frequent in the three southernmost character areas, and becoming smaller and more widespread to the north. Cob buildings are notable in a number of villages, adding to the historic character of settlements where they occur. Indeed, all but the southernmost of the character areas within the type contain a wide distribution of villages containing cob buildings and interestingly their distribution tends to be towards where the landscape type borders pronounced elevated areas, such as the Ironstone Uplands or broad river floodplains of the Upper Nene and the vale farmlands east of Rugby.

A dense network of narrow winding lanes often bordered by tall hedgerows links villages and hamlets together, beyond which may be found isolated farms at the end of narrow lanes. When travelling on these undulating routes, and where landform and intervening vegetation allow, villages are often visible on distant hilltops. Church towers occur more frequently than spires in this landscape type, and these are often the first element into enter the view, followed by the entire village fringe, which is often surrounded by hedged pastures, trees and small areas of woodland.

This is a long settled landscape, and in many areas has a strong historic character. Many villages have retained medieval buildings and street patterns, and occupy landscapes that are rich in remnant areas of ridge and furrow. The wider landscape also contains numerous earthworks attaining to the medieval period including motte and bailey castles and numerous manor sites. Examples are Steane Park where fish ponds, moated sites and a manor house are visible, and Harrington where manorial garden earthworks are an important landscape feature.

Interspersed in the landscape are a number of sites of great antiquity including three defensive structures from the Iron Age, Castle Dykes, Arbury Banks and Borough Hill, which is one of the largest sites of its type in the country. The course of Watling Street, the principal Roman Road between London and Holyhead, is also a significant feature of the historic landscape. It enters the landscape adjacent to the M1 between Crick and Kilsby, with its course now marked by the alignment of the A5, and takes a direct route across the rolling landscape to Towcester and beyond.
Historic country houses and designed parklands are also an important heritage resource. These are located throughout the landscape, although the principal sites are Holdenby House and Althorp. Holdenby House was built by Sir Christopher Hatton to entertain Elizabeth I, and became the Palace of James I and the prison of his son, Charles I. Its gardens, whilst limited in extent are of national importance and contain earthwork remains of early formal gardens laid out from 1579 to c.1587 and a deer park. Althorp is also significant. Its gardens contain traces of an early formal layout. The park dates from 1512, although has since been extended, with date stones recording planting between 1567 and 1901. Traces of avenues are ascribed to Le Notre.

**Boundaries and Field Patterns**

Field sizes and shapes vary considerably across the landscape, reflecting localised variations in landform and land cover. As a general rule, larger fields tend to be located on more elevated land with gentle gradients, and are principally used for arable cultivation. Medium to large fields are extensive, with smaller fields creating more intricate patterns surrounding villages where improved pastures are common.

Field boundaries are generally defined by healthy well managed hedgerows. Many are rambling and species rich, and contains numerous hedgerow trees, principally oak. Hedgerows are an important feature of the landscape containing and limiting many views from elevated locations, thus contributing the landscape’s intimate, human scale. Hedgerows also follow landform features and therefore emphasise the undulating character of the landscape.

**Communications and Infrastructure**

The landscape predominantly comprises a dense network of narrow winding country lanes, linking villages and towns. These tend to be enclosed by hedgerows, which often limit views. Roads tend to cross tributary streams rather than follow them and as such their course dips and rises along with the undulating landscape.

The principal and most heavily trafficked route in the landscape, however, is the M1. Its alignment mirrors the course of the route taken by the Roman Watling Street and runs parallel to the A5 between Crick and Flore before diverting eastwards and crossing the Nene to the east of Nether Heyford. This busy route is a prominent landscape feature and introduces noise and movement to otherwise rural landscapes. The course of the A5 (Watling Street) and M1 is also mirrored by two other regionally important transport routes, the mainline railway between Rugby and Milton Keynes and the Grand Union Canal. These important routes combine to make the landscape at the boundary of the Buckby and Daventry and Long Buckby landscape character areas one of the busiest in the county. All four routes, canal, railway, M1 and A5 are running together through the Watford Gap. This demonstrates the choice made by engineers surveying their routes north from London since Roman times.

Overhead transmission lines are the most prominent infrastructure development visible in the landscape, especially where pylon lines extend across the more elevated areas of the landscape. The main alignment of transmission lines runs through the landscape between Winwick and Eastcote although other significant stretches can be observed between Crick and Daventry and to the north of Middleton Cheney and Marston St Lawrence.

Whilst not a significant element of the wider landscape, transportation routes in tunnels are another conspicuous local landscape element, their construction necessitated by the undulating character of the landscape. The most significant stretches of tunnel, the Crick Tunnel and Braunston Tunnel, take two arms of the Grand Union Canal beneath areas of elevated ironstone hills. The alignment of the Crick Tunnel is visible above ground by tracing a line of wooded mounds, each marking the site of an airshaft. The Kilsby Tunnel is also important and takes the mainline railway from Rugby beneath the Ironstone Hills to the east of Kilsby. The airshafts here are impressive castellated brick structures that dominate the local landscape and act as locally prominent landscape features.

Another significant infrastructure element in the landscape is the tall telecommunications mast on top of Borough Hill. This is clustered with minor transmitters for mobile phones and is the last remaining mast on the hill that once formed a distinctive silhouette above Daventry, prior to their removal.

**Recreation**

Daventry Country Park is the principal recreational resource in the landscape. The park is based around the feeder reservoir, which supplies water for the nearby Grand Union Canal. The reservoir dam was begun in 1796 when a stone faced earth dam was constructed across the stream running through the valley to retain water. It was completed in 1804. Various informal recreational activities are catered for, including walking and bird watching. There is also a picnic area and adventure playground.

A dense network of footpaths criss cross the landscape. These are particularly dense around villages, from where they often radiate out into the surrounding countryside. A number of promoted paths run through the landscape, providing an important recreational facility. The principal route is the Grand Union Way, which runs through the undulating landscape alongside the canal from where it enters the county to the north of Downtown Hill to Blisworth. Here the canal continues southwards through the Undulating Claylands.
The Macmillan Way is also an important promoted walk through the landscape on its route from Boston in Lincolnshire to Abbotsbury on the Dorset coast. This route runs from the north of the character type from Weston by Welland southeastwards to Chipping Warden where it passes just to the north of Arbury Banks.

Significant stretches of four other promoted walks wind through the rural landscapes of the Undulating Hills and Valleys. These comprise the Midshires Way, the Jurassic Way, the Nene Way and the Knightley Way.

**AESTHETIC AND PERCEPTUAL QUALITIES**

The landscape is characterised by undulating, productive mixed farmland interspersed with small villages and often remote farmsteads. It retains a strong rural character, which is eroded in places by modern incursions such as major transportation routes and large urban areas. Whilst wide views over the landscape are possible from elevated areas, the Undulating Hills and Valleys generally have an intimate, human scale, reinforced by landform, small woodlands and hedges screening long distance views and creating enclosure. Even where wide open views are possible, villages, or more often church towers, offer focal points on the horizon and therefore reduce the perceived scale of the landscape.

**LOCAL DISTINCTIVENESS, LANDSCAPE CONDITION AND LANDSCAPE CHANGE**

The Undulating Hills and Valleys are widespread and occupy a significant portion of the west of the county. Local variations in landform, geology, soils and land use history, have an impact on local landscape character. However, the landscape is perceived as a unified, if extensive, landscape character type.

The mixed farming economy has necessitated the retention and maintenance of the hedgerow network and as such field boundaries are generally in a good condition and add much to the perceived intactness and good condition of the landscape. These are an integral part of the landscape, as they limit views and add to the well treed character of the rural scene and the sense of intimacy and human scale of the landscape. Hedgerow patterns also follow landform features and emphasise its undulating character.

The expansion of urban areas in recent years is also responsible for despoiling areas of the landscape on the urban fringe, often in the form of poorly designed and sited housing, a standardisation of road and street furniture, and increased insensitive lighting. The impact is often relatively localised, although wide areas have been influenced by the cumulative effects. The landscape bordering major transportation networks, for example the M1, is also showing signs of decline and standardisation, ensuring that when travelling along major roads, no sense of local character is evident.
13b  Bugbrooke and Daventry

The Bugbrooke and Daventry Character Area is the most extensive area of the Undulating Hills and Valleys character areas and occurs on the western and southern side the River Nene Broad River Valley Floodplain. It extends from the western county boundary, around the eastern edge of Daventry, to the southwestern edge of Northampton. Whilst this undulating landscape has a pronounced series of hills and valleys to the west, to the south and east it becomes more subtle due to its proximity to the River Nene and its floodplain. Views along the undulations are generally long and open, although landform and vegetation frequently limit more extensive, panoramic views.

Land cover in the area is a combination of both arable and pastoral farmland in fields of varying size. There is, however, a predominance of improved pastures with grazing cattle and horses surrounding the settlements dispersed through the character area, and often on steeper slopes such as those around Borough Hill. Woodland is limited to small, predominantly broadleaved woodland copses sparsely scattered throughout the area and becoming less frequent south of the River Nene. A number of well treed field boundaries also contribute to the overall woodland cover and often emphasise the undulating landform. A concentration of several larger woodlands are evident, however, between Preston Capes, Everdon and Farthingstone on steeper sloping valley sides. Woodlands within this location are also ancient, including Everdon Stubbs. Although this area of ancient woodland has been there for at least 300 years, it was not recorded during the Domesday Survey. Covering 30 hectares, the woodland straddles the road connecting Farthingstone and Everdon and consists of a mixture of hardwoods, including sessile and pendunculate oak together with other species including hornbeam, rowan, hazel, sycamore, silver birch and some very old beech. Designated as a Site of Special Scientific Interest, the woodland is also well known for its display of spring bluebells. A small car park and numerous footpaths are located within the woodland, providing a valuable recreational facility. Other recreational facilities include the Grand Union Canal Walk, Macmillan Way, Knightley Way and Nene Way National Trails and numerous public rights of way. Man made reservoirs are also a significant feature of the landscape. Two reservoirs, Daventry and Drayton are located on the fringes of the town of Daventry. A third reservoir, Ravensthorpe, is located to the east of the village of Ravensthorpe in the valley of a dammed stream. A mill is located at the northern end of the main water body and a causeway crosses it, providing views over the reservoir.

The landscape is well settled with a number of larger village settlements including Kilsby, Barby, Braunston, Weedon Bec, Lower Weedon and Bugbrooke. These are generally compact and extend up the valley slopes. Distant views are also possible of the large urban centre of Northampton. Smaller settlements have both a linear and clustered form, for example, Preston Capes and Badby are clustered, nucleated villages whilst Everdon, Farthingstone and Church Stowe have a typical linear form, often extending across the upper slopes and on occasions down the valley sides. Between the villages, the settlement pattern includes scattered farmsteads and dwellings located both adjacent to roadsides, and set back from the road and accessed via minor tracks. Some areas remain unsettled, however, with the only means of access on foot. Crossing the landscape and connecting settlement is a network of minor roads along with a number of more major roads, including a limited stretch of the M45 and M1, the A361, A45(T), A43(T) and the A5(T) Watling Street Roman Road.
Heritage features in the area include not only the Roman Road, but also Fawsley Hall, a Grade II listed park and garden. The original Tudor manor house, with its vaulted great hall and Queen Elizabeth I chamber, forms the core of the hall, with Georgian and Victorian wings including gables, gargoyles and gothic crenellations. The house sits in 120 hectares of ground, and although the gardens are of an uncertain date, the creation of the parkland landscape is attributed to Capability Brown in 1763. Also located at Ashby St Ledgers is the Grade II Manor House and surrounding grounds, providing an important landscape feature. Located in the northwestern corner of the area is the site of the medieval village of Fawcliff and on the southern boundary is the site of an 11th Century motte and bailey castle at Preston Capes. Scattered throughout the area are numerous fields of ridge and furrow particularly around Ashby St Ledgers, on the southern slopes of Cleves Hill, and around Dodford and Newnham. On the eastern edge of Daventry, Borough Hill, designated as a Scheduled Ancient Monument, includes numerous earthworks, a fort, and tumulus. Burnt Walls to the south, proves the existence of a considerable Roman station. Industrial heritage features are also evident in the Bugbrooke and Daventry Undulating Hills and Valleys, including significant sections of the Grand Union Canal and large stretches of both dismantled and working railways. Located in the northeastern corner of the character area is the Kilsby Tunnel, built by Robert Stephenson in 1838 as part of the London and Birmingham Railway. The construction of the 2,400 yard long tunnel commenced in 1833 and took 1,250 men nearly two years to build at a total cost of almost £300,000 against an estimate of £99,000. The increased cost was due to the discovery of quicksand under a 40 feet thick bed of clay. Several miles wide, the waterlogged sand was about 120 feet below the surface and water had to be pumped out continuously for 8 months at an average of 2,000 gallons of water per minute. Prominent features above the tunnel are large circular turrets providing airshafts for the railway below.

The M1, A5 (Watling Street), railway and canal all convene in the area in a tight transportation corridor, on the boundary with the neighbouring Long Buckby Character Area. This has been the natural location for major routeways north from London since the Roman period and is known as the Watford Gap. The location of this major strategic gap is marked by a service station and a collection of buildings surrounded by ridge and furrow a short distance to the north.

Landmarks are varied in the character area, including radio masts and a transmitting station around Borough Hill and a telecommunication mast south of Barby. Newnham Windmill is also a prominent landmark along with notable church spires and towers at Newnham, Bugbrooke and Church Stowe. Strong urbanising influences are evident in the landscape, not only through the presence of the M1 and M45 motorways, and other major ‘A’ roads and the railway, but also through the number of high voltage pylons crossing the character area. The undulating landform does, however, provide some screening for such elements.
EXECUTIVE SUMMARY

The Northampton Landscape Sensitivity and Green Infrastructure Study has been prepared by Living Landscapes Consultancy Ltd. on behalf of the River Nene Regional Park CIC, who commissioned the study on behalf of the Joint Planning Unit.

The Core Study Area incorporates all land within Northampton Borough, plus one parish beyond in each direction. This is consistent with the Study Area used for the Northampton Longer Term Growth Options Study (EDAW, 2007). The Core Study Area includes land within Northampton Borough, Daventry District, the Borough of Wellingborough and South Northamptonshire District. The boundaries of these Local Planning Authority areas are shown on Fig.1.

The study has been undertaken in four stages, and is set out accordingly.

Part A is a review of the baseline data. Its purpose it to gain an in-depth understanding of the natural and cultural resources of the area, and how they contribute to the setting and character of Northampton. The results are presented as a series of drawings, and also through text. The section is divided into five topics: Natural Systems; Cultural Heritage and Land Use Systems; Townscape and Visual Character; the Northamptonshire Environmental Character Assessment Suite, and Strategic Green Infrastructure.

Part B is a sensitivity review. Landscapes and designated sites within the Study Area identified in Part A are ascribed a level of sensitivity (high, medium or low) to large scale residential/mixed use development. The results are illustrated graphically, and also described through text. The sensitivity review includes four topics: biodiversity sensitivity; cultural heritage sensitivity, landscape and visual sensitivity and floodzones & minerals sensitivity. In addition, there is a combined sensitivity map, which brings the all the results together showing areas of high, medium and low combined sensitivity.

The aim of this section is to guide the Relevant Local Planning Authorities and developers to decisions that reduce any adverse impact on baseline resources, and to provide some indication on the location, scale and type of development that may be appropriate in a particular area. It also indicates how development should respond positively to both the opportunities and constraints identified. Plans showing sensitivity and Green Infrastructure Networks help to identify areas where Green Infrastructure provision would be most beneficial, and would enable positive responses and enhancement of the resource.

Part C is a Green Infrastructure (GI) strategy for Northampton. This section considers the opportunities for GI enhancement and consequential recommendations for an improved GI network around the town. It draws on the recently-completed Open Space, Sport and Recreation Study (pmp 2006) to identify areas of Northampton which are outside recommended catchment areas for certain types of Open Space, and also for which Open Space sites poor accessibility is an issue.

Key “GI routes” are identified which contain Primary Movement Networks, habitat corridors and Open Space sites. A series of Green Infrastructure projects are proposed which aim to address accessibility issues, and also enhance Northampton’s Movement Network, Open Space sites and Biodiversity Network.

Part D contains the conclusions of the Study.
8.4.22 **Study Area 5: North-west**

High sensitivity landscapes in the Study Area (other than those areas associated with discrete Scheduled Monuments, such as at Harpole Roman villa) can be found associated with Althorp Registered parkland.

8.4.23 There is an extensive well-preserved landscape of prehistoric activity which runs from Kings Heath, through Harlestone Firs and surrounding Harlestone and the Bramptons. A nationally important Neolithic Causewayed Enclosure, one of only two surviving in the county and probably intimately linked with the valley bottom example at Briar Hill, which was destroyed by an earlier phase of urban expansion, is associated with extensive settlement and ritual landscapes. In Harlestone Firs these features are particularly notable as they survive as a remarkable set of upstanding earthworks. To the north these features continue to form one of the most extensive and intact prehistoric landscapes in the county, and are of an extremely sensitive nature. However, as they are not statutorily designated at the present time, they are only shown as being of medium sensitivity.

8.4.24 Further Medium sensitivity landscape scale sites have been identified in this Study Area, such as the medieval deer park on the edge of the nationally important remains at Holdenby House (the house itself is just outside the Core Study Area, and comprises Scheduled village remains, Registered Landscape parkland and ridge and furrow remains). The relict parkland at Harlestone Golf Course, which still preserves elements of the exceptional planned landscape park, is adjacent to Althorp Park and considered to be of medium sensitivity. Scattered prehistoric, Romano-British and medieval settlement remains are also generally considered to be of medium sensitivity, as are medieval settlement remains in the area of Kingsthorpe village within the urban area of Northampton.

8.4.25 Low sensitivity remains are not extensive in this area, generally being confined to ironstone extraction in the area to the north-west of Boughton landscape park.

8.4.26 Fig. 29 shows Green Infrastructure Networks overlaid on Cultural Sensitivity. The primary movements meet in the centre of Northampton, which is considered to be of high sensitivity in cultural heritage terms. There is also a correlation between the Primary Movement Network and high/medium cultural sensitivity areas on the north-west edge of Northampton i.e. Dallington Heath, around Harlestone and Althorp Park. The potential for increasing interpretation along the Movement Networks is discussed further in Part C. There is a strong correlation between the Combined Habitat Reservoirs and high sensitivity cultural sites, particularly in areas of historic parkland.

8.5 **Landscape and Visual Sensitivity**

8.5.1 Refer to Fig. 24: Landscape and Visual- Sensitivity

8.5.2 The assessment of landscape and visual sensitivity has been undertaken at a **strategic level**. The following sections identify the overall sensitivity of the landscape within each Study Area based upon the primary landscape characteristics identified. Given the impact of local landform and vegetation on landscape impact at the local (scheme) level, more detailed site-specific appraisals would be required to reach a definitive position on actual sensitivity to change. These would need to be undertaken for a specific development proposal.

8.5.3 Landscape and visual sensitivity takes account of topography (which affects visibility), and also the function of the landscape. For example, does an area function as a strategic gap, or make a distinctive contribution to the setting of Northampton or one of the surrounding villages? The different sensitivity gradings are set out below:
8.5.4 **High Sensitivity**
The landscapes in these areas contain significant constraints such that development is inappropriate. They include key ridgelines and elevated land; areas of distinctive landform which have intervisibility with and contribute to the setting of Northampton; areas of high quality landscape; landscape which functions as a gap preventing the physical or visual coalescence of Northampton and surrounding settlements; distinctive settings of villages and open spaces within Northampton.

8.5.5 **High-Medium Sensitivity**
These areas contain significant constraints, although smaller-scale development may be appropriate subject to further detailed assessment and appropriate mitigation. They include areas of gently undulating landform which has intervisibility with Northampton and generally contributes to the setting of the town; Areas of rural landscape which have a stronger visual connection with the surrounding countryside than with Northampton and some areas of landscape which functions as a gap preventing the physical or visual coalescence of Northampton and surrounding settlements are included in this category.

8.5.6 **Medium Sensitivity**
Significant constraints have been identified in these areas, although some development may be possible subject to further detailed investigation and appropriate mitigation. Medium-sensitivity landscapes include areas which are not visually prominent and do not make a major contribution to the setting of Northampton.

8.5.7 **Low Sensitivity**
Some constraints have been identified in these areas, although development may be possible subject to further detailed investigation and appropriate mitigation. These areas have the least visual prominence and make a limited contribution to the setting of Northampton. They do not function as a gap between settlements.

8.5.8 Much of the Study Area is of high-medium sensitivity, with some areas of high sensitivity and pockets of low sensitivity as described below:

8.5.9 **Study Area 1: North East**
High sensitivity areas include the prominent landform of the Ecton ridge, and Overstone Park. Strategic gaps, which prevent the coalescence of Northampton with villages to the north, are also considered to be of high sensitivity. Land within north Northampton is highly sensitive due to its height, as demonstrated by the visibility of industrial buildings constructed on elevated land at Moulton Park.

8.5.10 The open spaces within Northampton such as Bradlaugh Fields and Abington Abbey, are considered to be of high sensitivity due to their important role as green spaces within the town and the contribution they make to its ‘green’ appearance.

8.5.11 There are pockets of lower visual sensitivity north-east of Round spinney and north of Overstone and of Whitehills.

8.5.12 The remainder of the Study Area is considered to be of high-medium sensitivity. It is an attractive rural landscape where medium/large scale development is likely to appear incongruous.
8.5.13 **Study Area 2: Nene Valley East**
This Study Area is relatively enclosed by landform and vegetation (especially in summer), and is therefore of medium/low visual sensitivity. It forms the foreground of views from the south across the Nene Valley, but even so the mobile home/static caravan parks on the valley floor, for example at Billing Aquadrome, are not visually prominent in these views.

8.5.14 Further south, the more open landform around the SSSI is more visually sensitive, and is prominent in views across the Nene Valley, and in views from the A45 within the valley.

8.5.15 **Study Area 3: South**
Within this Study Area there are three discrete areas of high-sensitivity landscape. These are 1) the ridge of land which runs from Cogenhoe to Hunsbury Hill, which is visually prominent and forms the southern setting to Northampton. 2) The area south and south-east of Hackleton and Piddington, due to the attractiveness of the countryside and strong visual links with the historic landscape of the surrounding wooded areas. 3) The Courteenhall estate, as an example of a traditional parkland estate. Delapre Abbey is also highly sensitive due to the size and openness of the site.

8.5.16 There are pockets of lower visual sensitivity land between the M1 and the existing southern edge of Northampton, and in the shallow "bowl" of land between Wootton and Grange Park.

8.5.17 The remainder of the Study Area is an open rural landscape of high-medium sensitivity, where medium or large scale development would appear incongruous.

8.5.18 **Study Area 4: Nene Valley West**
This Study Area has views across the open Nene Valley from the north and south, and is therefore considered to be of high-medium sensitivity. The landform is slightly more enclosed around and to the west of Kislingbury, but this area is attractive countryside where development would appear incongruous. The whole of this Study Area is therefore considered to be of high-medium sensitivity.

8.5.19 **Study Areas 5: North-West**
This Study Area contains a wide variation in sensitivity within a relatively small area. Areas of high sensitivity which contribute to the distinctive setting of Northampton include the Brampton Valley, Kings Heath, Dallington Golf Course and the hills to the west of Harpole.

8.5.20 The Countryside around Harlestone, Church Brampton and Chapel Brampton forms an important setting to these villages. Beyond these villages to the north-west is an area of exceptionally attractive rural countryside, which is considered to be highly sensitive to change/development.

8.5.21 There are small pockets of land of medium/low landscape and visual sensitivity, including the lower slopes of land to the south of St Crispin's Hospital, and the plateau to west of New Duston.

8.5.22 The remaining land is of high-medium landscape and visual sensitivity.

8.5.23 **Fig. 30 shows Green Infrastructure Networks overlain on landscape and visual sensitivity.** It shows that the Movement Network runs through landscapes of all levels of sensitivity. There is, however, a fairly strong correlation between areas of high landscape and visual sensitivity and Combined Habitat Reservoirs, particularly where they occur in parkland and woodland.
Legend

- Core study boundary
- Study areas
- Nene Valley (Generally visually enclosed)
- Principal ridgelines
- Memorable landmarks
- 1. Express Lifts Tower
- 2. St Matthew's Church Spire
- 3. St Giles Hospital Tower
- Insulas village and 11m notional setting
- Hard edge to urban area
- Prominent industrial buildings
- Distinctive landform which has intervisibility with Northampton and contributes to the setting of the town
- Gently undulating landform which has intervisibility with Northampton and generally contributes to the setting of the town
- Rural landscape which has a stronger visual connection with the surrounding countryside than with Northampton
- Landscape which functions as a gap preventing the visual or physical dominance of Northampton with surrounding settlements

NORTHAMPTON INFRASTRUCTURE STRATEGY

Figure 14: Visual Analysis

DATE: August 2008
SCALE: 1:7,500
STATUS: Final

DRAWN: SG
CHECKED: DL
APPROVED: FF

Dwg No: 2655LPG/14

Source: OJ MMP
NORTHAMPTON INFRASTRUCTURE STRATEGY

Figure 21: Strategic Green Infrastructure Framework
NORTHAMPTON INFRASTRUCTURE STRATEGY

Figure 31:
Combined Sensitivity

DATE: September 2008
DRAWN: SG
SCALE: 1:7,500 @ A3
CHECKED: DL
STATUS: Final
APPROVED: FF

Legend
- Core study boundary
- Study areas
- Urban area

Sensitivity
- High Sensitivity
- High - Medium Sensitivity
- Medium Sensitivity
- Low Sensitivity

Note: Eastfeld Park and Lings Meadow are not currently designated, but are soon to become County Wildlife Sites. They have therefore been graded as High Sensitivity.

This map was produced with data based upon the NCC HER and interpreted by PAPR. This data is not an official statement of sensitivity from Northamptonshire County Council’s Historic Environmental Record.

Sensitivity category subject to professional review.

Refer to the Environmental Character Assessment and Green Infrastructure Assessment © PAPR