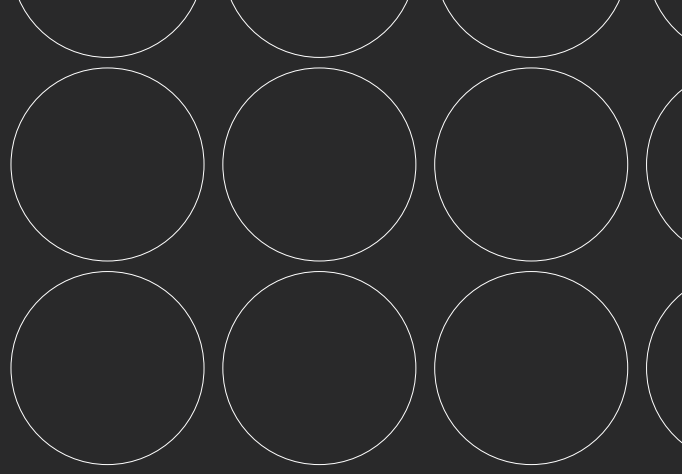


CURRENT LANDSCAPE CHARACTER ASSESSMENT



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View over arable land, Limestone Plateau

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PREFACE

INTRODUCTION

The project area comprises the administrative County of Northamptonshire, excluding the Soke of Peterborough and the present unitary authority area of Peterborough. Extending across 2360 km², it includes seven District and Borough Council administrative authorities. The greater part of the county comprises agricultural land with urban areas amounting to approximately 4% of the land cover.

Northamptonshire contains a number of distinctive and contrasting landscapes. Undulating, elevated land with ironstone villages in the west and north of the county contrast with the lower, broad river valleys that extend across the central and eastern part of the county, and also along its northern margin. Rockingham Forest, which contains extensive areas of historic woodland, also forms a distinctive landscape in the northeast of the county.

The principal watershed in the Midlands region follows the western side of the county with a series of rivers flowing westwards and southwards, notably the catchments of the Avon, Lean and Cherwell. However, the greater part of the county is drained by the two main river systems of the Nene and Welland, which flow northeastwards, and eventually beyond the county into The Wash.



Wadenhoe, Nene meandering



Shorts Wood in a well treed and hedged arable landscape

This assessment provides a detailed review of Northamptonshire's current landscape character at 2003. The study has been undertaken in accordance with the most recent guidance and methodology set out by the Countryside Agency. The guidance recognises that all landscapes matter, not just those that are particularly well known or evoke strong images, and that each landscape character type and landscape character area has a recognisable and consistent pattern of elements that makes it different from another.

Character makes each part of the landscape distinct, with a particular sense of place, regardless of perceptions of quality or value. The assessment provides a new landscape character map of the county that identifies, classifies and describes the pattern and contrasts in landscape character across the county.



Tunnel Hill, Undulating Claylands

THE INFLUENCE OF GEOLOGY

The principal geological structure of the county comprises an extensive belt of Lias Group rocks and Oolitic Limestone, which forms part of the Jurassic ridge that stretches northeastwards across England from Lyme Bay in Dorset to the North Sea, in North Yorkshire and Lincolnshire. The Cotswolds, perhaps the most well know section of this great Jurassic limestone belt, is located just a few miles to the west of the county boundary. Indeed, many features associated with the Cotswolds, for example high, expansive wolds cloaked in large arable fields, divided by dry stone walls, also occur within parts of Northamptonshire.

However, contrasting geological influences are also evident and add to the county's diverse character and appeal. For example, areas of iron rich Lias Group rocks, and Oxford Clay are widespread. Superficial deposits are also present, comprising extensive areas of glacial boulder clay, and gravels and alluvium in the river valleys. Such deposits mask the characteristics of the underlying solid geology, and create gently undulating landscapes that differ from the more elevated areas where superficial deposits are absent.

Contrasting geological formations underpin the landscape structure of the county and dictate the principal landform elements. Geology and landform have had a strong influence both on the pattern of man's progressive occupation of the land, and vegetation cover. Although Northamptonshire's geology is hidden beneath a landscape of fields, valleys and gentle hills, its mellow stone buildings are indicative of the diversity and wealth of its solid rock formations, with the pattern of local building intrinsically linked with the underlying geology.

NORTHAMPTONSHIRE - A RURAL COUNTY

Beyond the main urban centres of Northampton, Corby, Wellingborough, Kettering and Daventry a rural landscape of scenic beauty and local distinctiveness extends across the county. The towns and cities, together with major infrastructure developments including the M1 and other principal roads, have had a major influence on local landscape character. However, the wider landscape has long been perceived as a tranquil, rural area, famed for its productive farmland and attractive villages. Despite this general perception, however, few of the features associated with the Northamptonshire landscape evoke strong images.

This is perhaps due to the subtle transitions between contrasting landscapes, and there being few landscape elements of significant drama or prominence. The built environment is also evocative, ranging from the charm of the many picturesque villages and historic small towns to the individual houses, churches with prominent spires, mansions, and the numerous historic parkland and estates for which the county is also renowned.

Together, the elements and features that are present in Northamptonshire combine in various ways to create a great variety of landscapes, each displaying distinctive patterns of landform, vegetation, and landscape elements. The purpose of the Northamptonshire Current Landscape Character Assessment is to observe, analyse and describe these variations and distinctive patterns.



The Nene Valley, Great Doddington

1.0 INTRODUCTION

1.1 APPOINTMENT AND BRIEF

In April 2003, the Built and Natural Environment Service of Northamptonshire County Council appointed LDA Design (formerly Landscape Design Associates) to carry out a Current Landscape Character Assessment of Northamptonshire.

1.2 NORTHAMPTONSHIRE ENVIRONMENTAL CHARACTERISATION PROCESS

The Current Landscape Character Assessment forms part of a wider project that delivers an integrated, robust and transparent landscape characterisation of the county: the Northamptonshire Environmental Characterisation Process (ECP). This provides a comprehensive characterisation of the county by integrating the three primary environmental aspects comprising the historic, the biodiversity and the current landscape character, and the delivery of the county's Environmental Character Assessment (ECA).



Ferrets Wood, Wooded Clay Plateau

The principal objective of the overall project is to:

- Develop key environmental baseline datasets, and inform, develop and enhance the sustainable planning and management of the landscape.

Building on this principal objective, secondary objectives are to:

- replace Special Landscape Area local designations with a more objective character based assessment;
- Develop Supplementary Planning Document (SPD) and joint environmental strategies, in conjunction with partners and stakeholders;
- inform the consideration of development proposals;
- guide the best use and targeting of resources in respect of management, conservation and enhancement of the landscape;
- enable the undertaking of a five year development review cycle; and
- demonstrate the value of a fully accessible GIS database to classify, analyse and model change, and deliver in accordance with E-GMF 2001, with data incorporated onto a national internet metadata based on National Geospatial Digital Framework (NGDF) Discovery Metadata.

The three assessments will also be utilised to provide information for a variety of planning, conservation and management led initiatives and strategies.

All three elements base their assessment on a single physiographic model, which acts as a reference for, and link between the three separate strands of the model.

A current land-use data set has also been prepared that, together with the physiographic model, provides the primary common baseline data for the three parallel assessments. Each of the three separate assessments have been brought together to form a single integrated Environmental Character Assessment of the county, as well as being able to stand individually.

1.3 LANDSCAPE CHARACTERISATION IN PRACTICE

Characterisation is the process by which areas of distinctive character are classified, mapped and described. In this assessment, landscape character types and landscape character areas are identified. Landscape character types are distinct types of landscape that are relatively homogeneous in character. They are generic in nature in that they may occur in different parts of the country, but wherever they occur they share broadly similar combinations of geology, landform, drainage patterns, vegetation, and historical land use and settlement pattern. By comparison, landscape

character areas are unique and geographically discrete, sharing characteristics of the broader landscape type to which they belong.

An important feature of the character assessment process is that it is objective; no judgment is made of a particular landscape's value or quality. However, attention is given to identifying characteristics that are distinctive, rare or special, as well as the more commonplace.



Large-scale arable, Clopton

1.4 NORTHAMPTONSHIRE CURRENT LANDSCAPE CHARACTER ASSESSMENT

Prior to this study being undertaken the only countywide assessment of landscape character was carried out in 19921 . This assessment provided an overview of landscape character in Northamptonshire and identified nine Landscape Character Zones within the county (Figure 4). Since then, however, significant advances have been made in the field of Landscape Character Assessment and as a result, a new and more detailed assessment was required.

The project refers and builds on the Countryside Character and Natural Area approach developed by the Countryside Agency (CA) and English Nature (EN). In particular, the assessment is based on the methodology and approach set out in the *'Landscape Character Assessment Guidance for England and Wales'*² and tests and takes forward the draft national landscape typology that has been developed by the CA.

In order to be consistent with the Countryside Agency (CA) methodology, this assessment works within the framework of Countryside Character Areas and Landscape Character Types. This assessment also takes advantage of the most up-to-date technology for data interpretation and analysis and uses as a baseline a large number of detailed GIS datasets.

This landscape assessment adopts an holistic approach and considers Northamptonshire as a mosaic of different landscape character types and character areas, each with particular characteristics and subject to a range of forces for change. The overall aim of this assessment is to provide a detailed understanding of the Northamptonshire landscape at a base line date of 2003 when the field assessment was undertaken.

The Current Landscape Character Assessment has the following main objectives:

- to provide an assessment of the character and distinctiveness of the Northamptonshire landscape, and describe the county's component landscape character types and landscape character areas;
- to summarise the key characteristics associated with each landscape type; and
- to promote awareness of landscape character in the county, and the importance of landscape conservation and enhancement.

The results of the Current Landscape Character Assessment have been integrated with the results of the desk based historic landscape and biodiversity characterisation projects as digital overlays. Mapped boundaries and descriptive text have been assessed and analysed in order to identify and describe areas of common character at the sub-regional scale. This process delivers a single descriptive map of the county encompassing full time depth, comprising the County Environmental Character Assessment.

1.5 APPROACH AND METHODOLOGY

The study has been completed in accordance with the most up-to-date methodology for a Landscape Character Assessment. The main tasks were:

- A detailed review of the various Landscape Character Assessments within and immediately surrounding Northamptonshire;
- familiarisation with the study area through reconnaissance, information gathering, GIS interrogation and overlay mapping at 1:50,000 scale. A list of the core data sets used is attached as Appendix 1;
- background research into the physical and cultural attributes of the landscape;
- site survey including completion of field survey forms for landscape character types and landscape character areas, detailed mapping of landscape character types and landscape character areas, and preparation of a digital photographic record. Field survey forms were completed on a lap-top computer and fed directly into a geo-referenced Access Database. Example Field Survey Forms and prompts sheets are attached as Appendix 2 and Appendix 3;

INTRODUCTION

- incorporation of the results of all relevant existing and parallel and complimentary studies, including the physiographic and land use datasets. These studies were provided as a primary baseline data common to all of the parallel studies within the Northamptonshire Landscape Characterisation Process; and report and digital map preparation.

A flow diagram of the assessment process is presented in Appendix 4. A more detailed flow diagram describing the processes undertaken in the refinement of the National Landscape Typology and production of draft county landscape character types and areas is presented in Appendix 5.

1.6 THE SCOPE AND CONTEXT OF THE STUDY

The study area is shown on Figure 1. It includes the entire county of Northamptonshire. A townscape assessment has not been undertaken as part of this project. Urban areas, as identified in current Development Plans, are therefore excluded. Other built areas in the county are regarded as an integral part of the wider rural landscape they occupy.

The assessment includes a description of the physical (geology and soils, landform, hydrology, land use and land cover, woodland and trees) and human (buildings and settlement, heritage features, boundaries, communications, infrastructure and recreation) attributes of the landscape. An appraisal of past and present perceptions of the area, including those of national and local artists, musicians and writers did not form part of the brief.



Broad River Valley Floodplain, Denford

1.7 PARALLEL PROJECTS AND SURVEYS

The Northamptonshire Current Landscape Character Assessment benefited from a number of relevant studies. The findings of these independent studies were made available at an early stage of the assessment, and proved invaluable in the mapping and description of landscape character types and landscape character areas. Details are provided below.

1.7.1 Northamptonshire Physiographic Model

The *Northamptonshire Physiographic Model*, produced by Northamptonshire Archaeology on behalf of the Northamptonshire County Council Built and Natural Environment Section, was undertaken to provide a common primary baseline data set onto which the three primary environmental aspects of the *Northamptonshire Environmental Characterisation Process* could be based. The model provides the reference for and link between the three separate strands of the model. It has undergone refinement through consultation with interested parties.

1.7.2 Northamptonshire Land Use Data Model

The *Northamptonshire Land Use Data Model*, produced by Northamptonshire County Council Built and Natural Environment Section, provides the second of the common primary baseline data sets for the wider *Northamptonshire Environmental Characterisation Process*. The desk-based data is sourced down to individual field components and provides a comprehensive record of the current land use distribution and field patterns across the county.

1.7.3 Northamptonshire Historic Landscape Character Assessment

The historic character of the county's landscape is subject to a separate parallel study: the *Northamptonshire Historic Landscape Character Assessment (HLCA)*. This important piece of work provides a detailed analysis of the cultural dimension of the landscape, allows for an understanding of the historic structure of the landscape, and maps the dynamics of change over a long period of time.

INTRODUCTION

The findings of the HLCA have been integrated with the *Current Landscape Character Assessment (CLCA)* and other datasets to formulate the final combined *Environmental Character Assessment*. The integration of this key data set gives the final composite character map full time depth and provides a valuable opportunity to identify areas where relict landscapes survive and give a wider historic landscape context for point source historical data.



Cowpasture woods

1.7.4 Northamptonshire Biodiversity Character Assessment

The ecological character of the county's landscape is subject to a separate parallel study: the Northamptonshire Biodiversity Character Assessment (BCA). In parallel with the HLCA, the findings provide a detailed record and analysis of the biodiversity dimension of the landscape and a detailed understanding of the ecological patterns and habitat distributions and associations with the physical and cultural landscape.

As with the HLCA, the findings of the BCA have been integrated with both the *Current Landscape Character Assessment* and other datasets to formulate the final combined *Environmental Character Assessment*.



Rockingham Village pasture, Farmed Scarp Slopes

1.8 STRUCTURE OF THE REPORT

The landscape patterns evident today have evolved gradually over many thousands of years, and are the result of the interaction of physical and human influences. In recognition of this, Section 2 describes the principal influences that have shaped the Northamptonshire landscape. Important geological, cultural, historic and natural features are recorded, and their distribution across the county is briefly described.

Section 3 presents a review of landscape character across the county, and a classification of the 19 landscape character types, excluding urban, and the 63 landscape character areas. A further 15 landscape character areas cover the urban areas.

For each landscape character type a description of the key characteristics, landscape character and principal physical and human influences have been prepared. Written descriptions avoid value-laden terminology, for example 'beautiful', 'bland', 'attractive' and 'degraded'. In this way, the descriptions can help to raise awareness of an area's distinctiveness and encourage appreciation of variations in character across the county, without reference to subjective judgements on the relative value of each of the landscape types.

Section 4 of the report comprises a glossary of key terms, followed by Section 5, which lists the core references. Finally, Section 6, Acknowledgements, identifies stakeholders and consultees who made valuable contributions to the character assessment.

EVOLUTION OF THE LANDSCAPE

2.1 INTRODUCTION

The landscape has been shaped by the complex interplay of physical and human influences. An understanding of these influences is central to the assessment process and provides the basis on which to define and describe the landscape character of Northamptonshire.

PHYSICAL INFLUENCES

The geological structure of Northamptonshire, and the juxtaposition and succession of rocks, is fundamental to the form and structure of the landscape. While the underlying solid geology is responsible for the principal pattern and elevation of the landform, the differential responses of the various rock strata to the effects of erosion and weathering processes have altered the form of the landscape, influenced drainage and soils, and in turn the subsequent patterns of vegetation, land cover and land use.

The deposition of superficial material during the most recent Quaternary era has also been particularly important in moulding and modifying landform patterns. As a consequence, the gentle southeasterly dipping Jurassic strata are often entirely obscured by extensive deposits of boulder clay that was laid down during the most recent Ice Age, together with alluvium and river deposits within the valley systems.



Ironstone Hills

2.2 GEOLOGY AND SOILS

2.2.1 Introduction

The solid geology within Northamptonshire is relatively simple comprising entirely of sedimentary strata of the Jurassic period. They were formed largely under the sea and raised to form part of the landmass some 50 million years ago. Overlying the solid geology are superficial deposits of Quaternary glacial sands, gravels and till which date to the Wolstonian glacial cycle and alluvial deposits that are present in the main valleys and tributaries of the Nene and Welland. Soils are closely related to the rocks from which they are derived, in terms of chemical content and physical characteristics, both of which are important factors that influence the range of habitats and land cover elements that occur.

The Jurassic geology outcropping in Northamptonshire forms part of the belt that stretches almost continuously from the Cleveland Hills in Yorkshire to Lyme Regis in Dorset. In Northamptonshire, Jurassic limestone and ironstone are well represented and has determined the structure of the landscape and influenced the form and appearance of settlements and buildings.

Within the county, the Jurassic system consists of the Lower Jurassic Lias Group, and the Middle Jurassic, which comprises limestones, ironstones, ferruginous sandstone and clay.

An introduction to the geological framework within the county follows.

2.2.2 Jurassic Geology

Rocks dating to the Jurassic period were laid down between 135 and 190 million years ago as beds in ancient shelf seas and coastal areas. Various types of sediment accumulated according to the depth of water, the distance from the land source and local conditions. Changes in sea levels also occurred resulting in the successive deposition of different sediments. Variations in the conditions in which they were deposited resulted in contrasting thicknesses of the same deposit, and in places caused some to die out altogether.

The oldest rock deposits are present in the west of the county with the youngest outcropping in the east. This west to east succession from old to new is explained by the uplift that occurred some 50 million years ago. During the uplift the originally horizontally bedded strata were tilted slightly to the southeast. Subsequent millennia of erosion have resulted in the removal of the overlying younger rocks in the west of the county, and the exposure of older geology.

EVOLUTION OF THE LANDSCAPE

LOWER JURASSIC: LIAS GROUP

In 1999, a new classification of the Lower Jurassic was published in a British Geological Survey Research Report 6, and the previously familiar terms of Lower, Middle and Upper Lias have now been replaced by the Lias Group, and described in terms of lithostratigraphical formations.

The oldest deposits in this group are the former Lower Lias, now re-classified as the Blue Lias and the younger Charmouth Mudstone Formation. These clayey (argillaceous) sediments are contemporary with the fossiliferous limestone and clays of the Dorset coast at Lyme Regis, and deposited in a range of fairly shallow, muddy environments in the Liassic Sea. The Charmouth Mudstone Formation, which occurs in the valleys in the extreme west of the county, is up to 160 m thick and includes bands of limestones. Commonly underlying the valley floors, these deposits support a fertile soil, which is affected by waterlogging during wet periods, and cracking in prolonged dry spells.

The former Middle Lias Silts and Clays are now reclassified as the Dyrham Siltstone Formation. The deposit, which is sandier than the underlying Charmouth Mudstone Formation, also contains bands of coarser sandstone. The outcrop is limited within the county and confined to the lower hill slopes within the west of the county.

The Marlstone Rock Formation, formerly classified as the Marlstone Rock Bed and capping the Middle Lias, occurs as a thin band in the western part of the county, and varies from 1 to up to 3m in thickness. It consists of a hard ferruginous limestone and locally, a sandy ironstone. The bed thickens to 7 metres in the adjacent county of Oxfordshire where it caps the escarpment at Edge Hill, and supports a number of now disused as well as active quarries generating building stone. It has also been worked for its iron ore content, notably in the Banbury area, where it yielded around 24% iron content. Although the bed is thin in Northamptonshire, it is of sufficient depth to influence landform and create a bench in the hilly landscape along the Nene Valley westwards to Staverton. It has also been quarried as a local building stone within the county, with the warm brown stone evident in older properties in villages on the western side of the county including Middleton Cheney, Byfield and Kings Sutton. As the Marlstone Rock Formation overlies more impervious clays and siltstones, a series of springs often emerge at the base of the bed.

The former Upper Lias, now re-classified as the Whitby Mudstone Formation, is represented by almost 60 metres of mainly clays and mudstones with ferruginous and calcareous nodules. The clays occur in the valleys of the main rivers and their tributaries where they are partly overlain by alluvium and gravel. To the west of Northampton, these deposits occupy hill slopes, and are often capped by the Northampton Sand Formation of the Middle Jurassic. In many areas, the clays were dug for brick making.

Overlying the Liassic geology, soils are generally clayey to loamy and poorly drained. Most also tend to be acidic. Over the Marlstone Rock, however, the soil is a more permeable loam.

MIDDLE JURASSIC: INFERIOR OOLITE GROUP

The Middle Jurassic is a complex series of beds that originated under shallow water conditions. The Northampton Sand Formation comprises the oldest beds. This rock unit generally includes two divisions; a lower ironstone division 6-8 metres thick, and an upper division known as the Variable Beds. The Geological Survey's suggested but unpublished division of the Formation is the Corby Ironstone Member overlain by the younger Duston Member. As well as ferruginous sandstones, the unit consists of calcareous sandstone, and sandy Oolitic limestone. The range of rock types present varies across the outcrop within the county.

The Northampton Sand Formation outcrops in a broad band across the county from the southwest of Northamptonshire, northeastwards to Corby, and Easton-on-the-Hill in the extreme northeast. There are three principal outcrops of the Formation. In the centre of the county, a triangular outcrop extends across the valley slopes and to the east of the Brampton Valley, in places capping the hills in an arc around Northampton such as at Honey Hill (209 m ASL) and Borough Hill (197 m ASL). A second outcrop is concentrated along the Ise Valley, north of Rushden to near Desborough, and a further area occurs around Corby. It dies out to the east of the county, however, and is not present southeast of a line from Rushden to Towcester.

The ironstone deposits present in the north of the county around Corby were mined using open cast methods up until 1980, and represented the main ironstone mining area in Britain. The Ironstone was extensively quarried from the 1850s and a number of the old quarries and disturbed areas are evident across the landscape. Where they have not been converted back to agriculture, these areas are often of significant nature conservation interest and contain important nature reserves. These disturbed landscapes are less likely, however, to contain ancient trees and hedgerows.

EVOLUTION OF THE LANDSCAPE

Both the Ironstone Division and the Brown Sandstones of the Northampton Sand Formation have been an important source of building stone, as well as field walling. In addition to the Oolitic ironstone, the rich brown sandstone is the most familiar of the county's building stones contributing so much to the character of the older core of village settlements, as well as more prestigious buildings across the county.

Soils derived from the Northamptonshire Sands are generally a shallow ferruginous sandy loam with rock fragments. Overall they are freely draining and potentially acidic. On Ironstone areas, fragments of limonitic ironstone commonly occur within the silty clay loam.

The Lower Estuarine Series, now known as the Grantham Formation, overlies the Northampton Sand Formation and consist of river / sea sands, silts and clays. They are the deposits of a marshy shore rather than an estuary. Sands and silts were often worked for furnace linings. Soils derived from these deposits are classified as typical brown sands and are characteristically free draining. Organic carbon content is generally low in surface layers and erosion can be a problem. The soils occur as narrow bands on hill slopes where they follow the outcrop of the parent rock.

The Lincolnshire Limestone is an important member of the Inferior Oolite Series and is located in the north of the county from Geddington to Easton-on-the-Hill. It thickens in a northeasterly direction into Lincolnshire. The Lower Lincolnshire Limestone is sandy at the base and represents a fissile cross-bedded unit that gives rise to Collyweston Slate. Although heavy, this makes an ideal roofing material. Since medieval times the Lincolnshire Limestone has been an important source of building stone providing fine textured stone for carving. It was used for a number of the Cambridge Colleges, and notable ecclesiastic buildings, for example the impressive 12th Century Cathedral in Peterborough. Poorer quality material, such as the wide outcrop of Lower Lincolnshire Limestone south of Stamford, is used for rubble building and field walls.

Soils on the Collyweston base of the Lower Lincolnshire Limestone consist of fine sand with some platy fragments of limestone. Soils on the limestone plateau are less sandy and shallow and contain limestone fragments. Both soil types are free draining.

Middle Jurassic: Great Oolite Group and Kellaways and Oxford Clay Formations

Overlying the Lincolnshire Limestone Formation is a varied succession up to 12 metres thick, comprising the Rutland Formation, formerly the Upper Estuarine Series. This constitutes rhythmic units each comprising the following sequence: laminated clays, oyster marls or limestone; silts and sands; and an uppermost horizon marking temporary marine recession.

The Blisworth Limestone Formation (formerly the Great Oolite Limestone), is up to 7 metres thick, and outcrops in eastern Northamptonshire on the upper slopes of the Nene Valley and on higher ground away from the valley where it is generally overlain by superficial glacial deposits. It varies from fine-grained to cemented shelly limestone, and is typically thinly bedded within a metre of the surface due to frost action and weathering. Soils derived from this are generally thin, calcareous and stony.

The Blisworth Clay Formation overlies the Blisworth Limestone. This grey clay has a variable thickness reaching some 6 metres depth around Stanion but thins away southeastwards. The clay is seldom exposed, forming a slope between the Blisworth Limestone and the overlying Cornbrash. Soils derived from this Formation are firm, slightly calcareous clays. The Blisworth Clay Formation is overlain by the Cornbrash Formation. This reddish brown rubbly limestone was only used for metalling local roads. The Lower Cornbrash is a thin, rubbly limestone overlain by a more massive Upper Cornbrash, having a basal bed of rolled limestone pebbles. The deposit is only 2 metres thick and occurs along the higher land to the east of the Nene Valley beyond Wellingborough.

Kellaways Clay and Kellaways Sand overlies the Cornbrash east of the Nene, for example near Raunds. These give rise to acidic soils. Overlying these, the Oxford Clay occurs mainly along the northeastern fringe of the county and constitutes clays that are well known for brick making in the Peterborough area. The area is covered by extensive deposits of boulder clay.

EVOLUTION OF THE LANDSCAPE

Quaternary Deposits

For significant periods within the past two million years Britain was covered by thick ice-sheets, which extended southwards in extreme cold periods and receded northwards in intermittent temperate periods. There is evidence for four glacial advances in Britain. The most recent one, comprising the Devensian dating from 26,000 -10,000 years BP, did not reach Northamptonshire, with the county at this time lying in a zone of permafrost to the south of the maximum extent of the ice sheets. Earlier and more extensive glacial advances had brought with them enormous quantities of rock material scoured from distant sources including the Jurassic rocks of Yorkshire, the Chalklands of Lincolnshire, the Carboniferous rocks of Derbyshire and the Triassic sandstones and igneous rocks of Leicestershire as well as a wide variety of clays and ironstones from the locality.

Decaying ice sheets left thick deposits of glacial till consisting of dark grey clay containing assorted pebbles. The Northamptonshire Chalky Boulder Clay includes pebbles of chalk, flint and brown quartzite. Boulder clay occupies wide areas of the county east and west of the Nene north of Thrapston. Of particular note are the large sheets of generally chalky till dating to the Saalian glaciation, which cover the solid geology on the relatively high ground of the interfluvies around Wellingborough and Northampton. Further drift deposits include the sand and gravels laid down during periglacial activity. Although occurring in pockets across the county, these formations are principally located along the upper reaches of the Nene between Northampton and the Watford Gap. Some of the glacial material was deposited by meltwaters in the form of washed sands and gravel. These deposits occur in irregular but extensive areas beneath and within the boulder clay, for example on the high ground above the Nene at Wollaston.

Very extensive continuous tracts of gravels exist along the upper course of the Nene northwest of Nether Heyford. To the south, sand and gravel deposits are associated with boulder clay and widely distributed south of Towcester.

Along the Nene Valley northeast of Northampton, gravels form a series of river terraces and whilst their exact chronology is not known, they are believed to be post-glacial. More extensive are the alluvial deposits that occupy the base of most of the county's river valleys. These deposits are relatively recent, continuing to be laid down well into medieval times.

Soils deriving from the glacial gravels and fluvial deposits are permeable sandy loams with flint and quartzite. These are often potentially acidic although calcareous soils are also evident. Valley alluvium gives rise to humic clayey soil.

2.2.4 Observing Geological Features in the Landscape

Although not always apparent on the surface, the nature of the underlying geology can often be observed in the distribution and variety of materials used in the construction of vernacular buildings (refer to section 2.9 below), and by identifying diagnostic landscape features. Even where no obvious clues are apparent, the absence of features might also provide an indication as to the nature of the underlying geology. For example, across the clay plateaux where thick deposits of drift material cloak the underlying solid geology, hedges and brick houses predominate over stone houses and boundary walls, indicating the absence of locally available building stone.



Brick buildings of Broadmoor Farm on Claylands

EVOLUTION OF THE LANDSCAPE

2.3 LANDFORM

Landform within Northamptonshire closely reflects the underlying structure of the landscape, with features and variations often indicating the properties of the underlying solid geology, patterns of glacial and post glacial erosion, and the effect of glacial and post glacial deposition. Across much of the county, the variations evident in landform are subtle, with drift deposits cloaking much of the lowlands, resulting in gently undulating landscapes and flatter areas on upland plateaux and across floodplain meadows.

Despite the generally subdued nature of the physical character of the landscape, the county exhibits a number of distinctive landform features. The broad band of undulating high ground, extending around the west and northwest of the county, is perhaps the most striking topographically. The highest point, situated at approximately 220m ASL, lies at Arbury Hill in the parish of Badby. Around Daventry, the high ground narrows and is bisected by the Watford Gap before broadening out again into the northwest of the county. Here the highest ground reaches 210m ASL around Honey Hill in the parishes of Cold Ashby and Elkington. This rounded and undulating landscape forms the watershed for the Rivers Avon, Nene, Welland and Cherwell and forms the principal watershed in Central England. At either end of the county, the landform constitutes an elevated flat limestone plateau. Panoramic views over wide areas are possible in this open landscape, sometimes dominated by military airfields sited on the plateau to take advantages of the extensive areas of open flat land.

The Nene Valley forms a well-defined topographic feature through the centre of the county. As it progresses through Northamptonshire, the valley broadens out significantly from about 3km wide at Northampton to approximately 5km wide around Warmington. Its main tributaries, the River Ise, Harpers Brook and Willow Brook extend to the north forming smaller steeper-sided valleys. The other major river of the region mainly influences the boundary of the county. To the north, the southern side of the Welland Valley forms a steep scarp overlooking Rutland and Leicestershire between Cottingham and Easton on the Hill. The flat, alluvial floodplain is bordered by valley sides of varying heights, underlain by a succession of rock strata that has resulted in changes in the character of the river valley along its length.

In the southwest of the county the River Tove has created a narrow dendritic drainage pattern of tributary valleys. As with many other smaller rivers in the county, the valley form is poorly defined with low valley sides leading to a rolling landform that often merges into the surrounding landscapes. Indeed, many of the county's 'valleys' are so subtle as not to be recognisable as such and are interpreted in the assessment as forming a part of a wider landscape of undulations. In many instances, the presence of a linear belt of trees, riparian species and occasional brick or stone bridges at crossing points are the only means of identifying the course of a stream or brook.



Cattle in pasture, Undulating Hills and Valleys, Borough Hill

2.4 NORTHAMPTONSHIRE PHYSIOGRAPHIC MODEL

As part of the wider Environmental Characterisation Project for the county, Northamptonshire Archaeology prepared a physiographic model of Northamptonshire. The work sought to describe the physiography of the county by delineating areas defined by a common series of natural attributes. In summary, Geology and Topography were considered the two main influences on the physiographic character of the county. The weighting to be given to these influences and their component parts were outlined and the following order determined:

Geology

- Solid Geology
- Drift Geology
- Soils

Topography

- Altitude or Elevation
- Angle or Slope Gradient
- Aspect or Attitude

Primacy was given to the underlying rock formations since it was from these that soils were derived and the topography formed. In each case, surface geology was considered as the most significant in understanding physiographic form, so no attempt was made to factor in the deeply stratified geological deposits. Although other influences were considered, for example ground water, it was concluded that no other factors were necessary for the basic physiographic model. The county was divided into three principal areas, comprising the River Valleys, the Flat Plateaux and the Upper Ground. These three main terrain types were then subdivided, with the river valleys separated into their component parts of Valley Floor and Valley Side, whilst the upper ground and the plateaux were subdivided according to geological type. Further sub-divisions were possible, based upon contour heights. The Physiographic Model is illustrated in Figure 5.

EVOLUTION OF THE LANDSCAPE

2.5 HYDROLOGY

The hydrology of Northamptonshire encompasses not only the rivers within the county, but features such as reservoirs, lakes and the succession of sand and gravel pits that have been restored to create water bodies along the valleys, most notably the valley of the River Nene.

The headwaters and upper valleys of the River Nene and its tributaries form a loop around Northampton, Wellingborough and Kettering. The largest of these tributaries comprises the River Ise. The Nene flows through much of the county from its source to the west of Northampton, and in a general northeasterly direction towards Peterborough. It is situated in a broad, flat valley with the perimeter of the floodplain lined by numerous small settlements. Numerous sand and gravel extraction areas are located along the valley, many of which have been restored to lakes. Many of these have matured, and support dense vegetation and wet scrubland around their margins. A number are designated as areas of ecological importance at a national level and managed as both local nature reserves and recreational features.

The course of the River Welland forms the county boundary with Leicestershire. The valley is broad and flat, and overlooked to the south by farmed scarp slopes. The river flows in a series of tight meanders across the landscape. Unlike the Nene, the valley of the River Welland has not been exploited for sand and gravel and consequently there are few bodies of standing water within the valley bottom.

To the south of Northampton are the headwaters of the Great Ouse, and its tributary the River Tove, located on the southwestern county boundary, northwest of Milton Keynes.

Also located in the southwestern section of the county is the River Cherwell. Although it rises within Northamptonshire, its main catchment area is within the surrounding county of Oxfordshire.

Major changes occurred in the county's wetland landscape during the 17th to 19th Centuries, with the introduction of man made features. Rich landowners created numerous lakes in the parks of great country house estates, including those at Blatherwycke, Boughton, Castle Ashby and Fawsley. In the late 18th and 19th Centuries, the development of the canal network across the county was at its peak, which at the same time saw the first development of reservoirs. By the middle of the 19th Century, the demands for clean water were at such a level that the damming of streams occurred to form reservoirs. One of the earliest examples



Pitsford Water, Rolling Ironstone Valley Slopes



The Nene Valley, Woodford



The Welland Valley, Harringworth

EVOLUTION OF THE LANDSCAPE

2.6 LAND USE AND LAND COVER

Land use and land cover is dominated by agriculture, with most types of modern and traditional farming practices evident in the county. With its position in the middle of the country, and relatively subdued landform range, it is not affected by extremes of rainfall, temperature or slope. These factors often limit the type of crop that can be grown, or livestock kept. The variations in land use and land cover that are evident in the county have a strong influence on landscape character, with colours, textures and patterns all being affected by farming practices.

Although economic factors are important in influencing types of farming activities, decisions on what is grown or reared in a particular area are also guided by the attributes and limitations of local physical conditions. The effect of these influences result in general trends and patterns of land use and land cover that may be observed at a county scale. In many places, there are direct links between a particular agricultural regime and the underlying geology, or the landform or hydrological characteristics of the landscape. For example, across the plateau landscapes of the Farmed Claylands, the extensive areas of flat or gently undulating land are well suited to intensive agriculture.



Cattle pasture at Old



Arable Farmland Isham to Orlingbury

The local landscape is therefore managed accordingly, with large-scale fields, with few dividing hedges, and sown annually with cereal crops and harvested using large-scale machines. Such a farming regime creates an open landscape that retains an exposed, sometimes bleak, and highly managed character. By contrast, within the Undulating Hills and Valleys in the west of the county, wide variations of slope, aspect, drainage, and soil productivity have led to a mixed farming regime, where small, hedged arable fields mark well drained areas and improved pastures indicate the presence of steep or poorly drained areas bordering rivers and streams. Here, landform combined with the enclosing effects of hedgerows and smaller field sizes, creates an altogether more intimate, traditional, rural landscape.

At a county level, arable land, including both cereals and horticulture, occur most frequently in the east of the county, particularly across areas of both upland and lowland plateau. To the west of Northampton, grassland and arable land are in roughly equal proportions, with pasture land increasing in dominance towards the county's western boundary and along the Nene Valley.

Beyond the agricultural landscape, a number of other land uses have a significant influence on the character of the county's landscape. The parkland landscapes are particularly notable and can be observed throughout the county. With Northamptonshire's rural location in easy reach of London, this made it popular amongst the nobility from Tudor times, and many fine country houses were built and parklands laid out.

EVOLUTION OF THE LANDSCAPE



Lake and parkland at Fawsley

In many cases, the influence of the designer, or owner, was taken far beyond the boundary of the estate with avenues of trees stretching for great distances through the surrounding countryside, and monuments constructed on prominent hilltops. Villages were also demolished and rebuilt and distinctive architectural styles employed in the construction of estate villages.

More recent land uses have had a significant influence on the Nene floodplain. A long period of sand and gravel extraction has resulted in a sequence of pits bordering the main river channel.

These have often been restored to water bodies to create lakes, much valued for their amenity and nature conservation interest. A mosaic of woodland, arable fields, calcareous grasslands and improved pastures border many of the lakes, and whilst a great number are well used, some still retain a derelict or unmanaged appearance. A number of reservoirs were constructed at the start of the 20th Century, the largest of which is Pitsford Water to the north of Northampton. These large bodies of water occupy valley locations, formed by damming streams to ensure a supply of drinking water for nearby urban populations. Most no longer serve their original purpose, and are used for recreation and managed for their wildlife value.

The distribution of habitats and woodlands is illustrated on Figure 6.



Water bodies by the river in the Nene Valley

2.7 WOODLAND AND TREES

Woodlands are a notable land cover element within many parts of Northamptonshire. The most significant areas of woodland in the county are confined to three areas: Rockingham Forest in the northeast of the county, and Salcey and Whittlebury Forests on its southeastern perimeter. These areas represent ancient Royal Hunting Forests and have a major influence on landscape character in the county. Scattered throughout the rest of Northamptonshire are a number of large and moderately sized woodland blocks. Many are associated with historic designed parklands, whilst others represent remnants of much larger woodlands within agricultural landscapes. Smaller woodlands are also an important land cover element, and whilst of limited influence at a county scale, the patterns they create in the landscape are often very important to local landscape character, particularly where a number of small woodlands visually coalesce with hedgerow trees and field trees, to give the impression of a well-wooded landscape.



Short Woods, example of coppicing

Woodland within the county has been evident from as far back as 12,000 years ago when tree species invaded the frozen wastes left behind when glaciers retreated at the end of the last Ice Age. As the climate became warmer and wetter, it is generally accepted that the county became progressively covered in continuous forest, initially dominated by birch and other pioneer species. Over time, however, climax species of oak and ash would have dominated the 'wild wood'. Humans had limited impact on the forests during the Mesolithic period, although they did make small incursions through the clearing of areas of woodland to attract game for hunting. During the Neolithic period, when farming became the mainstay of the economy, forest clearance became more widespread. Indeed during the following few thousand years, woodland removal and subsequent soil erosion resulted in the washing of massive quantities of material into the county's rivers and streams. The Romans and Saxons brought with them improved plough technology giving them the tools required to clear and cultivate even the heavier clays. Substantial areas of woodland were lost, such as the large Saxon forest of Bromswold in the east of the county, leaving often just place names as the only obvious evidence of their presence and extent. However, the picture of woodland cover is not simply one of gradual loss, as certain periods saw extensive replanting and regeneration of forest areas, such as Rockingham, Salcey and Whittlewood during the post Roman period. Despite the ebb and flow of woodland cover, by the time of the Domesday Survey of 1086 AD, Northamptonshire had just 8.8% woodland cover.

By the 16th Century, much of Northamptonshire was farmland, with the largest woodlands located in areas that are still wooded today, namely Rockingham, Salcey and Whittlewood. These constituted part of a once much more extensive Royal Forest that stretched from Oxford to the edge of the fen landscape around Stamford.

It is important to recognise that the term 'forest' in this instance does not imply a heavily wooded landscape, rather it describes an area subject to Forest Law and would have comprised a matrix of open lawns, coppice and ancient woodland.

Throughout the medieval period, the traditional management practice in woodland within the county was coppice-with-standards. Oak and ash trees were grown for 70-80 years to produce timber for construction purposes, and in association with species such as hazel and sweet chestnut, which were cut back to ground level at 8-15 year intervals to produce poles for everyday needs such as fencing, thatching and fuel. Pollarding was also used as an alternative method for tree management where woodlands needed to be compatible with grazing animals. Although many traditional management methods ceased towards the end of the 19th Century, some older woodland within the county still reveal signs of this former method of management.

Today there are few large ancient woodland sites within the county, although a number of small sites are scattered through the area. The distribution of ancient woodland is influenced by the historic Forests and Chases, or Royal hunting grounds, with significant areas of ancient woodland located in the Forests of Rockingham, Salcey and Whittlewood. Scattered sites occur elsewhere, including important areas to the south of Daventry such as Badby Wood, Everdon Stubbs and Mantles Heath.

Coniferous plantations also represent an important element of the Northamptonshire landscape. Such woodlands are in evidence across the county and generally have limited ground flora. They are, however, slowly being replaced with new broadleaved plantations.

2.8 BIODIVERSITY

2.8.1 Evolution of Northamptonshire's Habitats – Natural Colonisation and the Impact of Humans

Northamptonshire, like the rest of Britain, acquired most of its present day species of flora and fauna by re-colonisation following wholesale extermination during the Pleistocene ice ages. During the most recent glaciation period of the Devensian, 25,000-10,000 years ago, the ice sheets did not reach Northamptonshire, and the area remained within a zone of permafrost.

At intervals in the Pleistocene, un-glaciated land connected southern England with continental Europe. These areas served as refuges for plants and animals, which were later to spread back into Britain as the ice and tundra conditions receded northwards. For Northamptonshire, the dominant vegetation at this time was trees including cold tolerant species such as birches, aspen and willows, subsequently followed by Scots Pine as the climate warmed. Between 7,500 and 5,000 years ago, the climate became slightly warmer and wetter than today, and this community gave way to continuous old-growth forest, dominated by lime, oak, ash, elm and hazel, and alder on wetter ground near streams, rivers and lakes.

This old-growth forest, or 'Wildwood' was formed by the time the Mesolithic hunter-gatherers began to manipulate and domesticate the natural environment between 10,000 and 5,000 Before Present (BP). These communities are thought to have been nomadic, occupying seasonal hunting camps, and were the first agents of landscape change. Despite their high mobility, evidence suggests that areas of wild wood were burnt to create clearings for more efficient hunting. It was also in this period that land that connected Britain to the continent was submerged, leaving Britain as an island.

More rapid and pronounced change to the natural environment has occurred since settled agrarian lifestyles were adopted from approximately 4000 BC. The start of the Neolithic period saw the first significant removal of woodland areas to allow for modified lifestyle changes dependent on settled farming. In the 6000 years since then, the removal of all traces of the native wild wood has occurred, along with the extinction of numerous native species, and the introduction of non-native species of plants and animals, perhaps most significantly domesticated plants and animals. Humans continued to manipulate the natural environment throughout prehistory and indeed to the current time. Species were either hunted to extinction, or their habitats were altered or lost and new species were introduced, first by invaders and traders and then by explorers, notably the plant hunters of the 19th Century.

2.8.2 Semi Natural Habitats in Northamptonshire

The long history of settlement and farming in Northamptonshire has limited the extent of areas of semi-natural habitats. Despite this, some of the finest and richest ancient woodlands in Britain are found within the county along with limestone grasslands to match those found within the Cotswolds, and water and wetland areas of national importance.

The woodlands across the county can be divided into two main groups: ancient and secondary. Ancient woodland is confined to those areas that once formed part of the medieval hunting forests of the county. To the north, this includes woodland remnants that formed part of the Royal Rockingham Forest, and to the south part of Yardley Chase, Salcey Forest, Whittlewood, and woodland groups south of Daventry.

Large proportions of the ancient woodland of Northamptonshire consist of a mixture in various proportions of oak, ash and hazel with occasional stands of birch, alder and willow where soil conditions are suitable. Other native trees such as the wild service tree can also be found, although these are generally confined to calcareous areas in northern sections of the county.

Secondary woodlands vary considerably across the county from beech woodlands that either are secondary woodlands, or planted within ancient woodlands, to new plantations planted for timber or game cover. These rarely contain as rich a biodiversity interest as ancient woodlands. In most deciduous woodlands, hawthorn and bramble dominate the understorey although snowberry can be common in small woodlands planted for game cover. Newer woodland blocks are often surrounded by fields and pasture where few plants are able to cross the open ground from ancient woodlands, thus limiting their diversity and habitat potential.

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Hedgerows across the county offer important habitats, in particular to mammals and birds, despite their limited botanical interest. Many hedgerows date back to the enclosure acts of the 18th and 19th Centuries, generally limiting the number of ancient hedgerows within the area. However, hedgerows marking parish boundaries or located adjacent to old roads can date back to a thousand years or more. The Enclosure Act hedgerows were, in most cases, planted with hawthorn species, whilst ancient hedgerows usually contain a much wider range of individual species. Hawthorn hedgerows across the county were traditionally managed by laying at intervals of ten to twenty years, and although this practice was neglected for a number of years it has recently been reintroduced by many farmers as a cost effective way of maintaining boundaries using traditional management techniques. The practice of hedgerow laying has also encouraged many hedgerow trees to be retained, allowing them to grow through. Frequently found species include oak and ash, and less frequently, rowan and the wild service tree.

Aquatic habitats across Northamptonshire vary considerably. Numerous gravel workings have been restored to water bodies within the Nene Valley; several large reservoirs can be found; and a number of disused ironstone workings have matured into sheltered areas of water that have helped to replace rapidly disappearing field ponds. The fen ditches located in the northeast of the county are a particularly interesting aquatic habitat. These are decreasing in number considerably due to excessive drainage over past years. However, small pockets remain unspoiled and are rich in aquatic species. Whilst canals in the area were once important for their aquatic life, the increase in holiday traffic in recent years has led to a decline in diversity, which has been detrimental to a number of habitats. Rivers and streams also create important habitats. An improvement in water quality in recent years has led to a significant improvement in plant life. Areas of marshland can be found adjacent to a number of the rivers forming wet woodlands, consisting mainly of alder, willows and ash. These are localised in occurrence, however, as extensive areas of marshland do not occur within the county.



Summer Leys Local Nature Reserve, Nene Valley

Over the last 300 years, quarrying has been extensive throughout Northamptonshire, and the nature of the activity has resulted in some distinctive plant associations. During earlier periods, building stone was the main product to be extracted from the range of rock formations that outcrop across the county. These principal building stone sources comprise the Marlstone Rock, Northampton Sand and Lincolnshire Limestone Formations, and the Blisworth Limestone Formation (formerly the Great Oolite Limestone and also known as White Limestone in the southern part of the county as well as in neighbouring Oxfordshire). A legacy of quarries also arose from extraction for other commodities, such as clay deposits for brick making, silica sand, and agricultural lime.

The main period of quarrying activity occurred from the Victorian period onwards when ironstone was quarried to supply the ironworks at Kettering and Wellingborough, and at Corby from the 1930s. The method of extraction within the quarries left behind distinctive areas of 'hill and dale' topography with a series of parallel steep ridges and intervening troughs.

Conifer plantations within the quarries have helped to preserve this distinctive landform, although many areas were levelled and restored to agricultural uses, losing the ridge and trough landscape.

Many quarries in Northamptonshire provide examples of the early stages of progression from bare ground to oak-ash woodland. Within the older quarries and other areas of disturbed land, a range of species has found niches within the regenerating vegetation. These include wild strawberry, blue fleabane, common centaury, common spotted-orchid and bee orchid. Ploughman's-spikenard is also frequent in many conifer plantations and the woolly thistle is often prominent where open areas have begun to close over. Sand and gravel extraction within the Nene Valley is also important within Northamptonshire. While many sites have been restored to open water and wetland habitats, the drier parts continue to evolve in a similar way to deeper quarries, with colonisation by species of willow being particularly prevalent.

EVOLUTION OF THE LANDSCAPE

Northamptonshire supports a wide range of grasslands that reflect the underlying soil type, and in turn the underlying solid and drift geology. Areas of calcareous grassland have developed on the limestone areas and are represented in a number of former quarries. Soils on limestone grassland are thin and free draining and slightly alkaline in nature. Vegetation is based on a grassland mix of upright brome and tor-grass with yellow oat, red fescue, quaking grass, and many more, and all the areas are characterised by a profusion of flowers. The most common type of grassland within the county, however, is on neutral river valley soils, which are rich in mineral salts and well drained, yet remaining fairly moist throughout the year. These areas are high yielding for grass crops and common grasses include perennial rye-grass, cock's foot, sweet vernal-grass, crested dog's-tail and Timothy. The main acidic soils within the county are the sands and gravels located mainly in the western areas of Northamptonshire. As the soils are quick draining, any mineral salts are soon leached out. These soils have often been planted with coniferous trees and the main grasses include wavy hair-grass and silver hair-grass. Limited areas of heathland also occur, in particular where areas of conifer plantations planted at the turn of the 20th Century have been clear-felled, and so remnants of the original vegetation have returned. A number of sandy ridings have also allowed sand loving plants to establish within the county, although increased coniferous planting in such areas is resulting in a decline in the species populations.

Northamptonshire, like many counties has a significant number and variety of waste places often displaying an interesting range of flora. For example, various poppies occur alongside many new roads and other areas of newly disturbed ground, along with various members of the goosefoot family. Railway lines, embankments, cuttings and bridges can also be a haven for plants such as the Oxford ragwort, as they are often undisturbed by humans, and unpolluted by fertilisers. Rubbish tips frequently contain a variety of species introduced with industrial, household or garden waste such as dyer's rocket, larkspur, hollyhock, honesty and Sweet Alison.

2.8.3 English Nature Natural Areas

The influence of various factors has created a number of distinct semi-natural habitats and features of nature conservation interest. At a very broad scale these have been identified by English Nature, which has divided England into a number of Natural Areas, each with a characteristic association of wildlife and natural features. These areas provide a way of interpreting the ecological variations in terms of natural features and illustrate the distinctions between one area and another. Each Natural Area possesses a unique identity resulting from the interaction of natural and human influences. Natural Areas provide a framework for the planning and implementation of nature conservation objectives and Biodiversity Action Plan (BAP) targets. Many Natural Areas share boundaries with the Countryside Agency's Countryside Character Areas and indeed the Rockingham Forest and the Yardley-Whittlewood Ridge Natural Areas are contiguous with Countryside Character Areas of the same name.

Four principal Natural Areas exist within Northamptonshire: Rockingham Forest, the West Anglian Plain, the Yardley Whittlewood Ridge, and the Midland Clay Pastures. Limited areas of the Cotswolds and the Trent Valley Rises also occur within the county boundary. Appendix 7 briefly describes all of the Natural Areas within Northamptonshire.

2.8.4 Northamptonshire Biodiversity Character Assessment

In September 2001 an outline methodology was drawn up for the creation of 'Ecological Character Areas' for the county. Further development of the initial methodology has evolved in parallel with the wider county characterisation project, to reflect changes and refinements that have arisen.

Biodiversity Character Types and Areas were established by analysis of a number of core habitat datasets, which provided data related to field-size units. For the purpose of the study a field is defined as an identifiable boundary on the Ordnance Survey map outside the urban envelope. A list of the core datasets is as follows:

- The Ancient Woodland Inventory
- The Grassland Inventory
- The Phase One Survey of Northamptonshire
- Sites of Special Scientific Interest
- Wildlife Sites
- The Current Landscape Character Characterisation

The findings of the Northamptonshire Biodiversity Character Assessment (BCA) have been integrated with the Current Landscape Character Assessment and other datasets to formulate the final combined environmental character map. The integration of this key data set provides a valuable opportunity to identify the baseline biodiversity character for areas of land that will assist in the management, restoration or indeed creation of habitats in the future. It gives a wider biodiversity and wildlife context for designated sites and particular habitats, and also allows for the close relationship between relict historic landscapes and archaeological sites and areas of wildlife value to be analysed in detail.



Honey Hill, Escarpment

2.8.5 SUMMARY

It is clear that Northamptonshire contains a diverse range of habitats that constitute a valuable, if impoverished⁷ wildlife resource. The landscape's complex and diverse geology combined with a long history of changing agricultural land use has resulted in a wide range of semi-natural and manmade habitats supporting a wealth of species: The main features include:

- Woodland habitats, both ancient and secondary in nature, of which the former includes remnants of the once extensive royal forests;
- Extensive hedgerow networks of vital importance for the movement of wildlife through the landscape;
- Rivers, streams, ditches, artificial lakes and ponds and reservoirs and associated wetlands with important flora and fauna;
- Grasslands of varied character supporting important plant, invertebrate and bird populations; and
- Quarries and wasteland creating and supporting landscapes of varied character.

The importance of the wildlife resource is reflected in the number of designated sites, which include National (Site of Special Scientific Interest [SSSI] and National Nature Reserve [NNR]), and County (County Wildlife Site [CWS] and Local Nature Reserve [LNR]) importance.

HUMAN INFLUENCES

2.9 BUILDINGS AND SETTLEMENT

2.9.1 Vernacular Buildings

In towns and villages throughout the county, and particularly in rural Northamptonshire prior to the Industrial Revolution, vernacular architecture predominated. Vernacular buildings were erected largely independently of current fashions and represented part of a long standing tradition passed on from generation to generation, evolving gradually in order to keep pace with changing needs. In Northamptonshire, as elsewhere, vernacular buildings have a direct relationship to the area in which they occur and mirror the relative scarcity or availability of particular building materials, as well as subtle differences of, for example, local geological formations.

Until the 12th or 13th Century, most buildings apart from important manors, churches and other substantial ecclesiastical buildings were not constructed in stone but are likely to have been timber with earth set posts. Few, if any of these medieval peasant homes are likely to survive although some of the homes of the wealthiest farmers can still be found. Standing survivors of the post medieval period are present in greater numbers and go some way to illustrate the likely zones of medieval building traditions, the main ones being stone, cob and timber frame roofed with thatch, stone slate and tile. Cob, for example, is most often found in the western parts of the county. It is likely that the majority of cob buildings surviving in the county date to the 17th or 18th Centuries, after which time its use declined due to the greater availability of brick.

Northamptonshire is fortunate amongst other Midland counties in having a rich diversity of building materials, derived from the underlying Jurassic rocks. These range from fossil rich limestones, to sandstones and warm coloured ironstone. In the north of the county, the cream coloured Lower Lincolnshire Limestone predominates. In the vicinity of Collyweston, this division of the Lincolnshire Limestone Formation includes the fissile limestones that were quarried and split for roofing slates. Although very localised in Northamptonshire, the more resistant Upper Lincolnshire Limestone has been an important source of freestones. It includes the distinctive pale Weldon Stone, which is evident in buildings such as Kirby Hall. Along the southern and eastern part of the county, the outcrop of Blisworth Limestone (formerly known as the Great Oolite Limestone) has provided an important source of building stone, and many of the villages and towns near the outcrop are built of this material. In much of the central part of Northamptonshire, the ironstone and the brown sandstones within the iron rich Northampton Sand Formation have yielded wide sources of building stone. To the west of the county, the rich brown Marlstone Rock Formation is evident in many of the villages.

The majority of surviving vernacular buildings date to the late medieval period. At this time there was an upsurge in domestic building and rebuilding and, as in the Cotswolds, almost every village on the Jurassic belt had its own stone pit. As a result, the geological framework of the county is expressed in the buildings, and older buildings often appear to be a part of the landscape in which they are situated. Areas within easy reach of two contrasting rock types have often utilised both sources, with the contrast between the different stone materials achieving striking architectural effects.

In the western portion of the county where it borders the Warwickshire – Leicestershire plain the traditional timber framing of both counties extends into Northamptonshire. Beyond the areas served by the Collyweston Slates, the most common roofing material was long wheat straw at a characteristically steep pitch. After about 1800, however, Welsh slate became freely available and was transported to and throughout the county via the emerging railway network.

Post war urban and suburban development has seen an ever increasing departure from vernacular styles, and the use of natural, locally procured materials, in favour of standard designs and materials, typically red brick faciers and tile roofs. This has the effect of making new developments appear divorced from their surrounding landscape and diminishing the contribution buildings can have on landscape character and local distinctiveness.



Easton on the Hill, Limestone Plateau

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2.9.2 Settlements

The Domesday Survey reveals that the vast majority of Northamptonshire's settlements were established by the time of the Norman Conquest. Many retain a number of older structures, usually focused around the church at the core of the settlement, and contribute significantly to an understanding of the settlements historic layout and character. The majority have seen expansion, with successive developments out from the historic core displaying the trends and fashions in architecture and town planning of each subsequent age. Other settlements have seen significant contraction, and some became deserted altogether. Desertion and contraction of settlements largely occurred during the medieval period. It is believed that this was because landlords enclosed arable land to create vast acres of sheep pasture to profit from the woollen trade, although climate change and plague are also thought to have played a part.



Earls Barton Saxon Church at centre of village



Ridge and Furrow by the Jurassic Way

As with most settlements throughout England, the church was one of the first buildings in a settlement to be built in stone and, as the focus of the community, offered an opportunity to express the wealth or prestige of a local benefactor through elaborate architectural detailing or sheer scale. Spired steeples often with octagonal or 'broach' coverings are a characteristic regional feature and it has been suggested that local rivalry contributed to their astonishing proliferation. The rolling nature of the Northamptonshire landscape, and the siting of settlements on hill crests and ridges, increases the visibility of settlements from a wide area of the surrounding landscape. Indeed church spires are often key landmark features offering striking accents and orientation points.

Agriculture was the driving force behind the medieval economy and operated by means of field systems often referred to as 'open fields', supplemented by areas of common, waste and woodland. The open fields surrounded the villages of Northamptonshire, and like the villages themselves, have medieval or earlier origins. However, a small but locally significant proportion of the county's fields represent later inclusions from former woodland, especially in forested areas such as in the Whittlewood and Rockingham Forest areas.

Prior to enclosure and the formation of 'modern' hedged fields, largely after 1500, the landscape was open with vast tracts of countryside broken only by the houses and paddocks of a settlement or a small piece of woodland, and disrupted by occasional larger areas of forest or waste. Ridge and furrow, the most visible trace in the landscape of remnant open field systems, are being lost and fragmented, but where they survive, they often contribute significantly to historic landscape character. Survival of ridge and furrow is best along the western fringes of the county, bordering Warwickshire and Leicestershire.

EVOLUTION OF THE LANDSCAPE

2.9.3 Urban Areas and Urban Area Boundaries

Urban Areas in this assessment comprise towns that are classified as Urban Areas in the Northamptonshire Structure Plan. Each of the sixteen Urban Areas identified in the Structure Plan are regarded as a separate entity. However, in this assessment Rushden and Higham Ferrers have been assessed as forming a single Urban Area because of the coalescence of these two settlements.

Urban Area boundaries have been delineated tightly for the purposes of this study and have been drawn to reflect the main built up area of each town. An initial 'draft' boundary was drawn on 1:10,000 scale base maps (at 1:25,000 scale) and refined and verified in the field to take account of changes on the urban fringe that have taken place since the publication of mapped data sources. Boundaries were drawn along the peripheral curtilages of properties and land closely associated with these, such as gardens around residential properties, hard standing surrounding factories and playing fields adjacent to schools, where these were closely related to built up areas and perceived as forming an integral part of the urban, rather than the rural landscape.

To ensure that the urban area boundaries are as accurate and up-to-date as possible, and are therefore an accurate representation of the landscape character of the county at December 2003, local authorities were asked to comment on the draft Urban Area boundaries. Specifically, each authority was required to amend Urban Area boundaries where extant planning permissions (committed) are in place and where known development has occurred, which was not identified in the field work stage of the assessment.

Urban Area boundaries in the Current Landscape Character Assessment indicate the main built up areas as they currently exist, or are committed through extant planning permissions. The assessment of Urban Area boundaries has not taken into account any proposals, aspirations or anticipated growth areas or planning permissions that have not been committed.

Urban Area boundaries identified in the Northamptonshire Current Landscape Character Assessment have been used in the Northamptonshire Biodiversity Character Assessment and the composite Environmental Character Area map of the county.



2.10 BOUNDARIES

Field boundaries, and particularly the patterns they create in the landscape, are an important element that contributes significantly to local landscape character. Often highly valued for their nature conservation value, they are also an important means by which a landscape can be dated, through observation by the trained eye of contrasting patterns that indicate subsequent periods of occupation and enclosure periods.

Prior to the widespread planting of hedges that took place in the 18th and 19th Centuries as a result of the Enclosure Acts, hedge laying was not widely practiced and the wider agricultural landscape was much more open than it appears today. Hedges did exist, but these tended to demarcate the closes and parcels of land around the core of settlements. With the Enclosure Acts, it was essential that newly established boundaries grew quickly. Hawthorn, and to a lesser extent blackthorn, were widely used in the county and continue to dominate field boundaries across Northamptonshire today. Stone was also used, although its distribution is geographically limited, primarily to the limestone areas in the north of the county.

The presence of dry stone walls is in part, indicative of the availability of suitable building stone. Around Collyweston, stone walls are evident in close proximity to hedged boundaries, with the geometric patterns created by both forms of boundary demarcation providing clear evidence of Parliamentary Enclosure.

Post war agriculture has seen a decline in the amount of stock kept, which has been mirrored in a decline in traditional boundaries. Many hedges have been grubbed out to accommodate large-scale machinery, or simply lost due to neglect. In their place, post and wire fencing has often been erected which is of no wildlife value and offers little to landscape character or local distinctiveness. With the arrival of new and more efficient farm machinery, there has been a steady and protracted decline in the number of people employed on farms. As a result, labour intensive activities such as hedge laying and maintenance, or dry stone walling has become increasingly uneconomic. In the place of hedge laying, mechanical cutters are used, although the resultant trimmed hedge is of lesser wildlife and aesthetic value than those managed using traditional techniques.

EVOLUTION OF THE LANDSCAPE

2.11 COMMUNICATIONS AND INFRASTRUCTURE

Important overland routeways have passed through Northamptonshire for thousands of years, the most notable known early transportation corridor being a prehistoric track that ran through the east of the county between Banbury and Stamford, and in part traced by the modern Jurassic Way. This was part of a much longer routeway running along the limestone belt from the Humber to the south coast of England. We know little of other prehistoric overland routes, although it is likely that movement was driven by the need to efficiently move between places of importance for trade and other forms of social interaction, universal themes that have shaped and evolved transportation routes since the earliest of times.



Railway across views to Westfield Lodge

Perhaps the most enduring historic routeways evident in the modern landscape are those dating to the Roman period. Major Roman routeways were part of a regional and national communication network, linking geographical locations, under which was a lesser known network of local roads and tracks linking settlements to the surrounding agricultural landscape. Roman roads cut through the landscape, taking a direct route between fixed points. They are most obvious when the course of the Roman road has continued in use to the modern day with little alteration, such as Watling Street, the modern A5. However, the trained eye can also find them preserved in the alignment of earthworks, footpaths or boundary features, for example the stretch of road running along the Nene valley between Titchmarsh and Water Newton.

During the medieval period some, but not all, Roman routes fell out of use. Other routes evolved, some of which remain in use today, which linked towns to their hinterland and into wider national and international trade.

A major phase of planning took place in the early 10th Century possibly in conjunction with the establishment of burghs. Later in the medieval period more modest upgrading occurred including the diversion of roads to link new or growing towns. These ancient road networks were transformed in the 18th and 19th Centuries, however, with turnpiking and Parliamentary enclosure. Enclosure Awards established a number of new roads, built to standard specifications and widths. Turnpikes were also built, including the London to Holyhead route, directed by Thomas Telford to follow the line of the Watling Street Roman road.



Canal locks at Stoke Bruerne



Watling Street as a track near DIRFT

EVOLUTION OF THE LANDSCAPE



Grand Union Canal

Turnpike roads and Enclosure roads were features of the Industrial Age and designed to improve the passage of goods and people between towns and centres of production and manufacture. Canals and railways were also important and allowed key towns to grow, on the basis that raw materials and manufactured goods could easily be transported to and from them. For example, the Grand Junction Canal opened in 1799 acted as a major artery for trade for nearly fifty years, linking provincial centres of industry with London markets and allowing coal, Welsh slate, limestone, lime and fertilisers into the county – all features that changed both urban and rural Northamptonshire. The railway age in Northamptonshire began in 1790s with the construction of the London and Birmingham (later the London and Northwestern) Railway. This was one of the nation's busiest railways but did not pass through Northampton due to the gradients on which the town is sited. The town was not linked to the rail network until 1845 following the completion of the Blisworth to Peterborough line.

The post war period has seen a massive population growth, industrial diversification and the emergence of office based industries. Communications and infrastructure have had to keep pace and indeed pre-empt growth in order to sustain the continued expansion of the economy. Roads and motorways have been the means by which such growth has been encouraged and controlled. The first motorway, the M1, was opened in 1951. Motorways, dual carriageways and improvements to minor roads have all followed and brought prosperity and development to all corners of the county. However, they have also had a significant impact on landscape character, bringing noise, light and movement to otherwise rural areas and stimulating the linear spread of large distribution centres and light industry, as can be seen along the main transportation corridor through the county, the Nene Valley.



Business Park by the A45, Wellingborough, Nene Valley corridor



The Jurassic Way footpath

Whatever its origins, the communications infrastructure in the county has had a profound influence on the county's landscape character. It has provided a means by which goods and people could move through the county, opening up new areas for exploitation by farming, mining or industry. As has been discussed, it has often provided a framework on which future landscape patterns could be established. Perhaps most importantly, however, communications routes, or rather key points along them, have become centres of production, trade or distribution leading to the establishment and expansion of the county's urban areas.

EVOLUTION OF THE LANDSCAPE

2.12 HISTORIC LANDSCAPE CHARACTER

Careful observation of the landscape, and interrogation of maps, archives and aerial photographs shows us that the landscape contains evidence of many layers of activity that represent different episodes of land use and land management. The concept of 'time depth' indicates the successive trends of landscape change and acknowledges that the modern landscape is a palimpsest of the historic events and processes of the past. A typical example might be the remnants of small irregular fields around some ancient villages, perhaps prehistoric in origin, surviving alongside large rectilinear fields from the parliamentary enclosure movement of the 18th and 19th Centuries. Another example would be ridge and furrow surviving in the manicured areas of turf within a parkland, or beneath areas of pasture that have not been ploughed in recent times.

2.12.1 Northamptonshire Historic Landscape Character Assessment

Whilst the findings of the HLCA did not form part of the suite of data sets for analysis and integration during the Current Landscape Character Assessment, historic landscape features were nevertheless considered when undertaking the study. However, the assessment of historic features was confined to those elements of the landscape that survive as above ground features and contribute to a particular area's sense of place and distinctive character through their visual expression. These were observed and recorded at the field assessment stage, and incorporated into the descriptions of landscape character types and areas. For example, at Fotheringhay, the character of the floodplain landscape was assessed as being greatly influenced by the impressive church with its octagonal lantern tower and the remains of the medieval castle overlooking the river. More subtle evidence of past land use and human activity, and indeed buried remains, were not considered as these were neither visible nor contributed to current landscape character.



Braybrooke Medieval Fish Ponds

NORTHAMPTONSHIRE'S CURRENT LANDSCAPE CHARACTER

3.1 INTRODUCTION

Northamptonshire is a rural county with a rich and varied landscape heritage. Whilst not widely regarded for its scenic beauty, the county contains a wealth of attractive rural landscapes, the most notable of which are located in close proximity to the River Nene, the county's principal river, and its tributary, the River Ise.

A number of large urban areas occur within the county. Beyond these principal urban centres, the built environment is also evocative, with numerous picturesque villages and market towns contributing significantly to the character of their immediate surroundings and wider setting. Of particular importance are the many distinctive church spires that are often visible for many miles around. These landmarks punctuate the horizon and provide a dramatic architectural statement and orientation point to those travelling through the county.

The range of landscapes that exist within the county are unified by recurring landscape elements and features. Hedgerows, designed parklands, woodlands and agricultural land are evident in all of the landscape types identified, and together create a strong perception of harmony. Despite the many unifying threads that run through the landscape, the relative frequency, spatial arrangement and individual character of these elements and features contribute to the great variety of landscapes that exist.

The initial findings of the Current Landscape Character Assessment identified 19 Landscape Character Types, excluding urban areas. Perhaps the most distinctive of these are the Ironstone landscapes that occupy the heart and the western fringes of the county. Here, ironstone villages, often on prominent hilltop locations, are a key characteristic. The broad floodplains of the Nene and Welland are also key landscapes in the county. The Nene is particularly important, representing a major transportation route through the county and the location for many of Northamptonshire's larger urban centres. The character of the river floodplain varies much along its length, with some stretches retaining their 'natural' characteristics, whilst others have been significantly influenced by mineral extraction or the expansion of neighbouring towns. The river's historic importance is also central to its character. Numerous ancient castles, bridges and towns line its course, and are often sited at strategic points to control and monitor movement through the county. The Welland is perhaps less important at a county scale, occupying the northern boundary of Northamptonshire. It is, however, equally rich in character, not least because it is bordered by a dramatic scarp edge from where wide views into neighbouring Leicestershire are possible. Along the eastern fringe of the county, the landscape varies considerably. In the north, Farmed Claylands characterised by vast, intensively farmed arable fields and wide views across open countryside prevail, whilst in the south, wooded ridgelines are characteristic. These retain an intimate character, rich in wildlife and are of great historic significance, the ancient woodlands representing the remnants of once more extensive royal hunting forests. The Royal Forest of Rockingham, in the north of the county is also of great significance. Extending across a clay plateau, it is widely regarded for its historic and ecological value. The county also contains a number of distinctive limestone plateau landscapes. These are reminiscent of areas in the Cotswolds to the southwest, with a well defined geometric pattern of fields, some of which are enclosed by dry stone walls.

This assessment provides a detailed review of the county's landscape and recognises that all landscapes matter, not just those that are particularly well known, or evoke strong images. The assessment acknowledges that each landscape character type and landscape character area has a distinct, recognisable and consistent pattern of elements that makes it different from another. Character gives each part of the landscape a particular sense of place, regardless of perceptions of quality or value. The assessment provides a new descriptive map of the county at a current baseline time of 2003 when the field assessment was undertaken, and draws attention to the contrasts in landscape character that is so often taken for granted.



View from Rolling Ironstone Valley Slopes

3.2 LANDSCAPE CHARACTER TYPES AND LANDSCAPE CHARACTER AREAS

The Northamptonshire Current Landscape Character Assessment uses as a framework the Countryside Agency's Countryside Character Areas (Figure 2) and the National Landscape Typology for England (Figure 3). Descriptions of relevant Countryside Character Areas and National Landscape Types are presented in Appendix 6. Reference has also been made to earlier landscape character assessments carried out within the county, and in neighbouring county and district authorities and study areas.

Building upon this framework, the Northamptonshire Current Landscape Character Assessment has identified 19 landscape character types, excluding urban areas, and 63 rural landscape character areas. These are listed in Table 3.1 and their distribution across the county is shown on Figure 7 for landscape types only. Figure 8, comprising a more detailed map at 1:100,000, indicates both landscape character types and areas.

Following this introduction, each of the generic landscape types is described. The key characteristics are summarised followed by a review of landscape character, and the physical and human influences that have shaped the landscape and contributed to its character. This is followed by a description of the geographically unique landscape character areas that occur within each landscape character type, and a summary of the principal features that are particular to each.

3.3 LANDSCAPE CHARACTER TYPE AND AREA BOUNDARY DETERMINATION

The draft boundaries of the landscape character types and areas were initially mapped to 1:50,000 scale using the range of data sets that were made available by Northamptonshire County Council. Reference to 1:25,000 scale maps was also an integral part of the desk and field studies, in order to provide a more informed and detailed analysis of mapped features, and the pattern of field sizes and types, in particular. Mapping in the field was undertaken to 1:25,000 scale, and the subsequent verification, and plotting the field verified and final boundaries of types and character areas, was completed to this scale.

Many of the boundaries between the landscape character types are transitional and not, therefore, represented by clearly defined lines on the ground, and hence on a plan. This is evident, for example, in the boundaries that define the Undulating Claylands landscape character type. Here, superficial deposits of drift material have created gently undulating landscapes, across which only subtle differences are indicative of variations in landscape character. By contrast, the boundaries of other types are more clearly defined, for example the escarpment associated with the Farmed Scarp Slopes. Even this distinctive landform unit, however, demonstrates transitional characteristics, particularly at the base of the escarpment where slumping and hummocky ground can occur, and also along the break of the slope at the top. Here, individual fields might be observed 'rolling' over onto the neighbouring Ironstone Quarried Plateau and Wooded Clay Plateau blurring the distinction between landscape types.

Consequently, it would be potentially misleading to show boundaries that accurately followed field boundaries, as this may provide an inappropriate level of accuracy in the context of the transitional nature of landscape character at a county scale. Nevertheless, in order to provide clearly referenced boundaries that can be fully interrogated in GIS, the final boundaries between landscape character types and areas have been mapped to 1:10,000 scale and follow field boundaries and other features that provide a similar level of detailed representation. In order to accommodate the transitional nature of the landscape, where the assessment of a particular site or area is undertaken that falls close to, or within 0.5 km of a boundary line, it is recommended that the characteristics, descriptions and management strategies for each of these adjacent landscape types / areas are taken into consideration. This is particularly important in the evaluation of, and guiding management requirements, as well as in the response to consultations and the development of landscape and environmental projects. Such an approach is particularly important where there is a high degree of intervisibility between neighbouring landscapes. 'Borrowed' characteristics are important not just to the landscape they are in, but also to the landscape from which they are visible.

NORTHAMPTONSHIRE'S CURRENT LANDSCAPE CHARACTER

Landscape Character Type	Landscape Character Areas
Ironstone Landscapes	
1. Ironstone Uplands	<p>1a Guilsborough Ironstone Uplands</p> <p>1b Spratton and Creaton Ironstone Uplands</p>
2. Ironstone Hills	<p>2a Eydon Hills</p> <p>2b Staverton Hills</p>
3. Ironstone Quarried Plateau	3a Kirby and Gretton Plateau
4. Rolling Ironstone Valley Slopes	<p>4a Harlestone Heath and the Bramptons</p> <p>4b Moulton Slopes</p> <p>4c Ecton and Earls Barton Slopes</p> <p>4d Hanging Houghton</p> <p>4e Pitsford Water</p> <p>4f Kettering and Wellingborough Slopes</p> <p>4g Irthlingborough Slopes</p>
Boulder Clay Landscapes	
5. Clay Plateau	<p>5a Naseby Plateau</p> <p>5b Sywell Plateau</p> <p>5c Burton Wold</p>
6. Undulating Claylands	<p>6a The Tove Catchment</p> <p>6b Hackleton Claylands</p> <p>6c Bozeat Claylands</p>
7. Wooded Clay Plateau	<p>7a Geddington Chase</p> <p>7b Deene Plateau</p> <p>7c Rockingham Plateau</p>
8. Low Wooded Clay Ridge	<p>8a Whittlewood Plateau</p> <p>8b Salcey Forest and Yardley Chase</p>
9. Farmed Claylands	9a Chelveston and Caldecott Claylands

NORTHAMPTONSHIRE'S CURRENT LANDSCAPE CHARACTER

	<i>9b Polebrook Claylands</i>
Limestone Landscapes	
10. Limestone Plateau	<i>10a Croughton, Aynho and Farthinghoe Plateau</i> <i>10b Collyweston Limestone Plateau</i> <i>10c King's Cliffe Plateau</i>
11. Wooded Limestone Hills and Valleys	<i>11a King's Cliffe Hills and Valleys</i>
12. Limestone Valley Slopes	<i>12a Wollaston to Irchester</i> <i>12b Higham Ferrers to Thrapston</i> <i>12c Thrapston to Warmington</i> <i>12d Harper's Brook</i> <i>12e Aldwinckle to Oundle</i> <i>12f Oundle to Nassington</i>
Lower Jurassic Geology Landscapes	
13. Undulating Hills and Valleys	<i>13a Middleton Cheney and Woodford Halse</i> <i>13b Bugbrooke and Daventry</i> <i>13c Long Buckby</i> <i>13d Cottesbrooke and Arthingworth</i> <i>13e Stoke Albany and Ashley</i>
14. Rolling Agricultural Lowlands	<i>14a Newbold Grounds</i>
15. Farmed Scarp Slopes	<i>15a Hothorpe Hills to Great Oxendon</i> <i>15b Cottingham to Harringworth</i> <i>15c Harringworth to Duddington</i> <i>15d Duddington to Easton on the Hill</i>
16. Low Pastoral Hills	<i>16a Boddington Hills</i>
Riverine Landscapes	
17. River Valley Floodplain	<i>17a River Cherwell Floodplain</i> <i>17b River Tove Floodplain</i> <i>17c Brampton Valley Floodplain</i>

NORTHAMPTONSHIRE'S CURRENT LANDSCAPE CHARACTER

	<i>17d River Ise Floodplain</i>
18. Broad River Valley Floodplain	<p><i>18a The Nene – Long Buckby to Weedon Bec</i></p> <p><i>18b The Nene – Weedon Bec to Duston Mill</i></p> <p><i>18c The Nene – Duston Mill to Billing Wharf</i></p> <p><i>18d The Nene – Billing Wharf to Woodford Mill</i></p> <p><i>18e The Nene – Woodford Mill to Thrapston</i></p> <p><i>18f The Nene – Thrapston to Cotterstock</i></p> <p><i>18g The Nene – Cotterstock to Warmington</i></p> <p><i>18h The Nene – Warmington to Wansford</i></p> <p><i>18i The Welland – Market Harborough to Cottingham</i></p> <p><i>18j The Welland – Cottingham to Wakerley</i></p> <p><i>18k The Welland – Tixover to Wothorpe</i></p>
19. Broad Unwooded Vale	<p><i>19a Boddington Vale Farmland</i></p> <p><i>19b Vale of Rugby</i></p> <p><i>19c Welland Vale</i></p>
Other	
20. Urban	<p><i>20a Brackley</i></p> <p><i>20b Towcester</i></p> <p><i>20c Daventry</i></p> <p><i>20d Northampton</i></p> <p><i>20e Desborough</i></p> <p><i>20f Rothwell</i></p> <p><i>20g Corby</i></p> <p><i>20h Kettering</i></p> <p><i>20i Rushden and Higham Ferrers</i></p> <p><i>20j Wellingborough</i></p> <p><i>20k Raunds</i></p> <p><i>20l Thrapston</i></p> <p><i>20m Oundle</i></p> <p><i>20n Burton Latimer</i></p> <p><i>20o Irthlingborough</i></p>

1 IRONSTONE UPLANDS

CHARACTER AREAS

- 1a Guilsborough Ironstone Uplands
- 1b Spratton and Creaton Ironstone Uplands

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Honey Hill

KEY CHARACTERISTICS

- **Elevated, undulating upland landform;**
- **Ironstone geology expressed in local vernacular buildings and in rich red soils;**
- **drift deposits limited to gentler slopes below more elevated areas of land;**
- **distinct broad backed ridges aligned on a northwest to southeast orientation;**
- **gentle slopes prevail although some steep slopes occur adjacent to more elevated landscapes;**
- **very limited standing or flowing water evident above the spring line, located at the junction of the Ironstone and Mudstone;**
- **arable farmland in medium and large scale fields predominates on elevated land although sheep pastures also prevalent, often in smaller fields on sloping landform;**
- **agricultural practices create a patchwork of contrasting colours and textures;**
- **limited woodland cover comprising occasional small coverts and spinneys on valley slopes below the spring line and small shelter belts close to farmsteads;**
- **hedgerow trees are an important landscape feature, particularly given the landscapes un-wooded character;**
- **hedgerows generally low and well clipped although intermittent sections show evidence of decline;**
- **settlement pattern of small nucleated villages located along principal direct routes across the uplands;**
- **wider settlement pattern of isolated farmsteads off tracks located at right angles to the main arterial routes; and**
- **building materials vary, although vernacular architecture and churches displaying the local ironstone are important.**

1 IRONSTONE UPLANDS

LOCATION AND INTRODUCTION

The Ironstone Uplands comprise small areas of elevated land on the northern sector of the county and to the northwest of Northampton. Two character areas have been identified, forming separate and distinct ridge lines. The westernmost character area, the Guilsborough Ironstone Uplands, is higher, rising to approximately 210 m ASL. The area is surrounded almost entirely by the Undulating Hills and Valleys landscape character type, although a small area of the Guilsborough Ironstone Uplands is bordered to the northeast by the Clay Plateau landscape character type.

PHYSICAL INFLUENCES

Geology and Soils

The underlying geology is predominantly Inferior Oolite ferruginous sandstones of the Northampton Sand Formation; the colouring of this iron rich rock unit resembles Ironstones. These deposits overlie Lower Jurassic Lias Group Mudstones.

Drift geology across the type is limited to isolated areas of glacial till (diamicton) dating to the Quaternary period. These are overlain by smaller areas of undifferentiated glacio-fluvial deposits of sand and gravel. Drift deposits masking the underlying solid geology are generally found on the gentle slopes forming the western fringes of the Guilsborough Ironstone Uplands.

Soils throughout the landscape are characteristically a rich orangey brown, reflecting the ironstone geology from which they are derived. Well drained, brashy, fine and coarse loamy ferruginous soils generally overlie the more elevated areas of ironstone, although some are also deeper fine loams over clayey soils with slower permeable subsoils with slight seasonal waterlogging. On the lower slopes, fine loams over clayey soils predominate with slowly permeable subsoils and slight seasonal waterlogging, associated with similar but wetter soils. Some calcareous and non-calcareous slowly permeable clayey soils are also evident. Small areas of slowly permeable seasonally waterlogged clayey soils are located on the outer edges of the landscape type.

Landform

The Ironstone Uplands comprise some of the most elevated landscapes in the county, rising to approximately 210 m ASL. They form broad undulating ridges aligned on a northwest to southeast orientation, the highest areas being in the north. Slopes are generally gentle, falling from flatter areas at the summit of the ridgeline. Saddles between more elevated areas also exist. Steeper slopes are evident, particularly where streams draining upland areas have eroded distinctive valley formations. The steepest slopes lie to the west of Honey Hill, the highest point across the Ironstone Uplands, and one of the most elevated locations in Northamptonshire. The landscape has an elevated character in places, although limited viewing opportunities of the surrounding lowland landscapes reduces the sense of elevation across much of the landscape.

Hydrology

There is little standing and flowing water in these elevated landscapes. However, a number of springs emerge at the junction between the Upper Jurassic Ironstone strata and the Lower Jurassic Mudstone rock formations. Although the majority of streams originate from springs on the Ironstone Uplands and flow southwards into the Nene, a small number of streams emerge on the Guilsborough Ironstone Uplands, and flow northwards into the River Swift and Avon. Often, a linear belt of trees is the only evidence of the presence of a stream in the landscape.

Land Use and Land Cover

Arable farmland predominates across the Ironstone Uplands, although improved grassland, and to a lesser extent neutral grassland, is conspicuous on steeper slopes. Small areas of calcareous grassland are also evident, often forming a close relationship with areas of improved grassland, with their presence indicated by areas of unimproved permanent pasture.

Woodland and Trees

Large and moderately sized woodlands are largely absent from the Ironstone Uplands, with tree cover restricted to linear belts of young trees often in close proximity to isolated farmsteads. Small broadleaved woodlands (spinneys and coverts) are also evident on sloping land, and along some stretches of streams draining the upland areas below the spring line, and marking the point where springs emerge. Hedged field boundaries are occasionally well treed with ash and oak. Avenues of mature ash are also evident in places. These combine with groups of trees planted around farmsteads to give the impression that the tree cover within this landscape is more extensive than it is.

HUMAN INFLUENCES

Buildings and Settlement

Settlement is restricted to a small number of nucleated settlements located on the upland plateaux. Beyond these villages, the settlement pattern consists of isolated farmsteads. These are often located at the end of long, straight tracks that run at right angles to the main arterial routes that cross the Ironstone Uplands, with outbuildings and the farmhouse often sharing a tight footprint. The 'Lodge' element in the name of many farmsteads is particularly noticeable. Building materials vary, although local ironstone and thatch are conspicuous in older properties in a number of settlements. Old stone buildings tend to be located in close proximity to the church at the centre of the settlement, with more recent housing developments evident at the edge of settlements. Cob buildings are also evident in a number of villages including Thornby, Cold Ashby, Hollowell, Gretton and Spratton and where present add to local historic character.

1 IRONSTONE UPLANDS

Heritage Features

Few conspicuous areas of heritage interest are evident across the landscape. A small number of pastoral fields show evidence of ridge and furrow, although this is by no means widespread or dominant in views. A significant area occurs to the west of the Guilsborough Uplands, around the village of Winwick, that stretches into the Undulating Hills and Valleys landscape type.

Boundaries and Field Patterns

Hedges typically comprise hawthorn, and are low and well clipped. Occasionally, gappy stretches are evident with field boundaries reinforced with post and wire, and post and rail fencing. Post and wire fencing is particularly evident enclosing areas of sheep pasture and along streams. Hedges often contain mature or semi-mature oak and ash. These are an important local landscape feature, providing a sense of tree cover in an otherwise sparsely wooded landscape. Fields on the elevated undulating Ironstone areas are predominantly medium to large and large scale and often used for arable farming. By contrast, small and small to medium regular fields are conspicuous, as are areas of pasture on steeper sloping landform around the edge of the type, and in close proximity to the principal settlements. Smaller fields are often conspicuous in the landscape as permanent pastures lying close to streams below the spring line. Occasionally at the junction of minor roads, metal parkland fencing is used to mark field boundaries.

Communications and Infrastructure

Direct roads run across the spine of the uplands, along which lie the landscape type's principal settlements. A number of minor roads extend from these busy arterial routes, often running at right angles to the main road. This orientation is mirrored by numerous tracks leading to isolated farms, set back from the road, and by field boundaries.

Recreation

There are few recreational opportunities within the Ironstone Uplands. Public footpaths and bridleways are limited although the Jurassic Way / Macmillan Way run for short stretches through the landscape. A single golf course is located on the gentle slopes to the south of Honey Hill.

AESTHETIC AND PERCEPTUAL QUALITIES

Contrasting areas of agricultural land uses create a colourful patchwork of yellows and greens within a strong pattern of fields. Areas of ploughed land, where a variety of rich brown and orange soils are visible add to the range of colours evident in the landscape. The undulating landscape retains an intimate rural character despite its relatively high elevation. Occasionally, expansive views are possible, although this is not frequent. The landscape is generally quiet and large areas are inaccessible. A busier character prevails on or close to the well used arterial routes that run along the spine of these areas.



Guilsborough



Norman doorway at Spratton Church

LOCAL DISTINCTIVENESS, LANDSCAPE CONDITION AND LANDSCAPE CHANGE

The Ironstone geology is particularly important to the landscape, finding expression in the stone used to build older village properties and in the rich orange and brown soils that are evident in ploughed arable fields.

The condition of the landscape varies and is very much dependent on the extent to which hedgerows, as a key landscape feature, are managed. Areas of good hedgerow management tend to have a well-maintained character where landscape condition might be regarded as high. In areas where hedgerows are gappy, and reinforced by post and wire fencing, the landscape condition shows signs of decline.

1 IRONSTONE UPLANDS



Guilsborough Ironstone Uplands



Honey Hill Escarpment

1a GUILSBOROUGH IRONSTONE UPLANDS

This extensive area of elevated Ironstone farmland occurs between the Hollowell and the Ravensthorpe Reservoirs and extends northwards to Honey Hill, which is one of the highest points in the county. The Guilsborough Ironstone Character Area is characterised by a predominance of large arable fields on undulating ironstone geology, with gentle slopes below the spring line dominated by improved pastures grazed largely by sheep. The main settlement in the character area is Guilsborough, a compact linear settlement aligned along the busy minor road crossing the landscape. Beyond this lies a rural landscape of isolated farms, often located at the end of long straight tracks that run at right angles to the main arterial route. Long views are limited by landform, hedgerows and small copses. There are few landmarks, although the telecommunications mast on Honey Hill is prominent in views. At the junction of two minor roads, metal parkland fencing has been used to mark field boundaries. As is typical of the type, woodland cover is restricted to small deciduous copses on the slopes bordering streams draining the uplands. The highest concentration occurs in the northwest, in the vicinity of Cold Ashby and Thornby. The area is little affected by modern development and its quiet rural character is retained.



Village from footpath

1b SPRATTON AND CREATON IRONSTONE UPLANDS

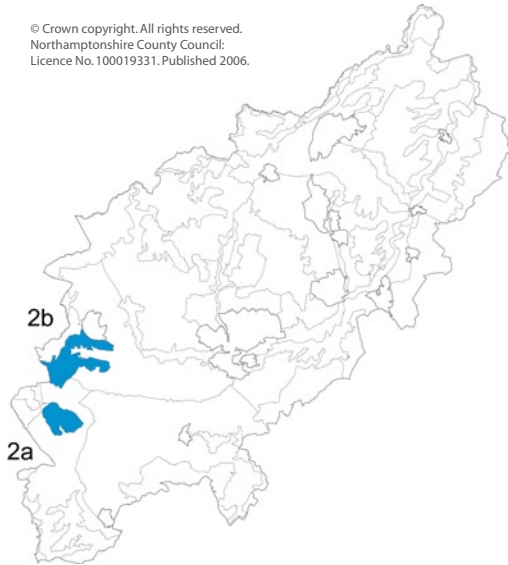
The Spratton and Creaton Ironstone Uplands Character Area is significantly less elevated than the Guilsborough Ironstone Uplands to the west. The landscape is also more heavily influenced by settlement, with the villages of Creaton, Little Creaton and Spratton occupying a significant part of the area. As is consistent with the landscape type, a central busy road, comprising the A5199 Welford Road, takes a direct route across the landscape with minor roads, access tracks and fields orientated at right angles to it. Woodlands are not characteristic of the area, although hedgerow oak and ash contribute to the landscape, and give the impression of a well treed landscape in some views.

2 IRONSTONE HILLS

CHARACTER AREAS

- 2a Eydon Hills
- 2b Staverton Hills

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Arable land on Ironstone Hills

KEY CHARACTERISTICS

- Elevated, rolling upland landform with distinctive isolated hills;
- Ironstone geology expressed in local vernacular buildings and in rich red soils;
- varied landform, extensive views and sense of exposure on some prominent hilltops;
- sense of remoteness in some areas;
- steep slopes adjacent to more elevated landscapes;
- limited standing or flowing water, although springs rising below the Ironstone feed three principal watercourses;
- productive arable farmland in medium and large scale fields predominates on elevated land although sheep and cattle pastures also prevalent, often in smaller fields;
- agricultural practices create a patchwork of contrasting colours and textures;
- medium sized broadleaved woodlands and mature hedgerow trees combine to give the sense of a well treed landscape;
- hedgerows generally low and well clipped although intermittent sections show evidence of decline;
- settlement pattern beyond the main villages comprise isolated farmsteads accessible off long tracks; and
- building materials vary although vernacular architecture and churches display the local Ironstone.

2 IRONSTONE HILLS

LOCATION AND INTRODUCTION

The Ironstone Hills represent an area of distinctive hills along the western boundary of Northamptonshire. The landscape is almost entirely surrounded by the Undulating Hills and Valleys landscape character type, although a small area of the Staverton Hills is bordered by the Rolling Agricultural Lowlands. The Staverton Hills are also bordered by Daventry. Two character areas have been identified. These represent separate and distinct areas of hills. The southernmost character area, comprising the Eydon Hills, is lower, with broad rounded hills rising to a maximum of 190m ASL. By contrast, the Staverton Hills are higher, rising to approximately 220m ASL, and form the most elevated parts in the county.

PHYSICAL INFLUENCES

Geology and Soils

Although not the most extensive rock type in the landscape, the Inferior Oolite Ironstones of the Northamptonshire Sand Formation are the most prominent and important in terms of the contribution made to landscape character. These Middle Jurassic deposits were once more extensive but have been eroded to leave just isolated remnants as a hard capping on the most elevated land. The outliers overlie softer Lias Group rocks of the Lower Jurassic including the Whitby Mudstone Formation, which in turn rests on the Marlstone Rock Formation and Dyrham Formation silty mudstones below.

Drift geology across the type is limited to very isolated deposits of glaciofluvial sand and gravel. Alluvium is also evident although restricted to the course of the Cherwell as it flows between Eydonhill and Redhill in the Eydon Hills landscape character area.

Soils across some parts of the landscape type are characteristically a rich orangey brown, reflecting the ironstone geology from which they are derived. A wide variation in soil colour and type occurs, however, reflecting the pattern of the underlying geology ranging from mudstones and alluvial deposits. Across the majority of the Ironstone Hills, slowly permeable seasonally waterlogged clayey soils with similar fine loamy over clayey soils predominate, with some fine loamy over clayey soils with only slight seasonal waterlogging and some slowly permeable calcareous clayey soils. On more elevated areas of the hills, areas of well drained brashy fine and coarse loamy ferruginous soils overly the ironstone. Some deep fine loamy over clayey soils with slowly permeable subsoils and slight seasonal waterlogging are also evident. Located on the lower slopes of the hills are small areas of fine loamy over clayey and clayey soils with slowly permeable subsoils and slight seasonal waterlogging.

Landform

The Ironstone Hills represent the most elevated landscapes in the county with a number of the hills in the Staverton Hills landscape character area rising to a maximum height of 220m ASL. Here, the capping of Ironstone is less extensive than in the Eydon Hills character area, where larger areas of capping form lower, rounded hills, generally rising to 170m ASL. By contrast, the hills in the vicinity of Staverton are smaller and more distinctive, with most hills appearing as distinct 'knolls', with flat or rounded tops rising above the surrounding rolling landform. However, others are elongated and appear as ridgelines. The ridges bordering the River Nene's headwaters to the west of Newnham are orientated east - west, mirroring the alignment of the river.

Slopes associated with the ironstone capping are generally steep, thus creating distinctive hilly topography. Gentler slopes and a rolling landscape are characteristic of areas of Mudstone geology. A low but distinctive scarp is also evident in the Staverton Hills character area associated with a narrow band of Dyrham Formation silty mudstone, which has been eroded to form a steep landform unit overlooking the River Leam.

Hydrology

The Ironstone Hills mark the watershed between a number of major water courses. The Nene, for example, rises in the Staverton Hills to the south of Staverton before flowing eastwards. The Cherwell can be observed flowing through the Eydon Hills character area, its upper reaches having been fed by streams originating on the southern fringes of the Staverton Hills character area, in the vicinity of Hellidon. The upper reaches of Leam may also be traced to the Ironstone Hills, its source originating from springs that rise at the junction of the Ironstone and mudstone on the western flank of the Staverton Hills.

2 IRONSTONE HILLS

Whilst they are not a dominant landscape feature, numerous ponds and small waterbodies are present within the landscape type. The majority are natural features, although a small number are artificial reservoirs and water management features.

Land Use and Land Cover

Arable farmland predominates on the Ironstone and Marlstone Rock geology, and along the western fringes of the Ironstone Hills. The steepness of slope gradients on the rolling landscape has not been a limiting factor preventing cultivation. Soils derived from the Marlstone Rock are particularly fertile producing light, iron-rich clay loams that are excellent for cereal growing. By contrast, significant areas of the Ironstone Hills are also cloaked in permanent improved pastures, supporting both cattle and sheep, particularly along the eastern fringes of the landscape type. In these areas, improved grassland is often in close proximity and indeed forming a matrix with limited areas of neutral and calcareous grasslands. These were once more extensive but have been improved by the addition of fertilisers. Local variations in agricultural land use forms a patchwork effect when viewed within the wider landscape, with contrasting colours and textures forming an important landscape element.

Woodland and Trees

Whilst, woodlands are not a dominant landscape feature, they make an important contribution to landscape character across the Ironstone Hills. Moderately sized deciduous woodlands are prevalent and are largely associated with designed parklands or can be found cloaking particularly steep slopes and along watercourses. Small copses also occur throughout the agricultural landscape and can often be observed close to farmsteads, where they offer shelter.

A significant area of ancient woodland extends across Badby Down. This represents an area that has been wooded for over seven hundred years, and mainly consists of native hazel and oak trees interspersed with ash in wetter areas and bracken in open glades. The wood was imparked in the 13th Century to create a deerpark for the Abbot of Evesham. The park pale still exists in the form of woodland banks.

Hedged field boundaries often contain ash and oak as mature and semi-mature hedgerow trees. In a number of instances, these occur as rows of trees in arable fields, indicating field amalgamation by hedgerow removal. In views over wide tracts of the landscape, mature hedgerow trees combine with isolated woodlands to give the impression of a well-treed landscape.

HUMAN INFLUENCES



New ironstone buildings in Staverton

Buildings and Settlement

Settlement is extremely limited across the Ironstone Hills. The main settlements are Staverton and Eydon, both representing compact settlements located on the upper slopes of hilly areas. Eydon is located on top of a hill capped by Northampton Sand Formation, which was quarried for building stone. Evidence of this famous quarry still remains. Hellidon is also another prominent settlement, whose dispersed form spreads out along roads on the slopes above the source of the River Leam. The warm, orangey brown Ironstone is the predominant building material used in older properties in these villages, the stone often being evident as small rubble blocks bound by wide mortar courses. Significantly, Eydon is built of Northampton Sand derived from the local quarry. In contrast, Staverton is situated on the Lias Group Marlstone Rock, and this rock provides the local building stone. Red brick is also a prominent building material, which allows modern buildings to integrate well with older properties. Beyond these villages, the settlement pattern consists of isolated farmsteads. These are often located at the end of long tracks some distance from the principal road network and as a result retain a remote character.

2 IRONSTONE HILLS

Heritage Features

The most prominent heritage feature visible in the landscape is the Iron Age settlement Arbury Hill, enclosed by a visible earth bank rampart. The site occupies an almost square hill capped by Ironstone and represents the highest point in the county at 225m. Fawsley Hall is also partially within the Ironstone Hills. This is a Grade II* registered landscaped parkland attributed to Capability Brown. The Catesby Tunnel and Viaduct, dating to the Industrial Age, is also a notable heritage feature within the landscape. The tunnel allowed the now derelict Great Central Railway to pass through the uplands. Its southern portal, an imposing brick structure, has a date stone indicating it was constructed in 1897. The line of the tunnel is marked by a number of air shafts that run through the landscape from Charwelton to Catesby House. Beyond these well-known and conspicuous sites, few areas of heritage interest are evident across the landscape. A small number of pastoral fields show evidence of ridge and furrow, although this is by no means widespread or dominant in views.

Boundaries and Field Patterns

Hedges principally comprise hawthorn, and are low and well clipped. Overgrown and gappy hedges are also evident. Where field boundaries enclose areas of pasture, post and wire fencing is often used to reinforce areas of gappy or thin stretches. Significant lengths of hedged boundaries contain numerous mature hedgerow trees. This is particularly the case where hedgelines border watercourses. These are an important landscape feature, contributing to the landscapes well-treed character. Fields on the elevated rolling Ironstone Hills are predominantly regular or sub regular, with the Eydon Hills Character Area displaying widespread coverage of sub regular field patterns. Field sizes are more variable and to a certain degree mirror agricultural land use. There is a predominance of large and medium to large fields along the western edge of both character areas where arable farming predominates. Small to medium size fields are more prominent on the lower, eastern fringes of the Ironstone Hills and surrounding settlements where pasture is the dominant land use.



Blackdown Masts, a modern landscape feature

Communications and Infrastructure

Wide areas of the Ironstone Hills are deeply rural and inaccessible, with isolated farms only accessible from long, private tracks. The main public road running through the Ironstone Hills is the A361. This occupies the eastern fringes of the Staverton Hills and runs along the mid slope of the ridge to the south of Byfield on the eastern fringes of the Eydon Hills Character Area. A network of minor B roads run at right angles to this main arterial route linking villages and hamlets together. These tend to weave between prominent hills and ridgelines.

Although most hill tops remain undeveloped some, including Newham (201m ASL), Big Hill (215m ASL) and the hill to the south of Bromtrees Farm (222m ASL), have been exploited for their elevation by the siting of telecommunication masts close to their summits. These form prominent landscape features and are visible from wide areas. Earlier examples of exploitation exist at Windmill Hill and Newham Hill where windmills survive.

Recreation

There are few recreational opportunities within the Ironstone Hills. Public footpaths and bridleways form an extensive network, providing access to otherwise remote rural areas although few extend onto the summits of the higher hills. The principal footpath routes comprise the Jurassic Way, which passes through the hills of both the Staverton Hills and Eydon Hills Character Areas; limited stretches of the Knightley Way, which runs through the Staverton Hills between Fawsley Hall and Badby; and the Macmillan Way, which passes through the Eydon Hills. A single golf course is located on the slopes to the west of Hellidon.

2 IRONSTONE HILLS

AESTHETIC AND PERCEPTUAL QUALITIES

Contrasting agricultural land uses creates a colourful patchwork of yellows and greens within a strong pattern of fields. Areas of ploughed land, where a variety of rich brown and orange soils are visible, add to the range of colours evident in the countryside. Textural elements are provided partly by the variety of land uses but mostly by the mosaic of woodlands, hedgerows and hedgerow trees. The rolling landscape retains a remote and quiet rural character as a consequence of large tracts of the hills being some distance from public roads. A busier character prevails close to the well-used arterial routes that run through the hills and close to the larger settlements. Expansive views are possible from prominent hills, giving the landscape an exposed 'upland' character. This is in contrast to areas below the hill summits where rolling landform and vegetation limit long distance views and contribute to the landscape's intimate character.

LOCAL DISTINCTIVENESS, LANDSCAPE CONDITION AND LANDSCAPE CHANGE

The influence of the Ironstone geology is particularly important to the landscape. Whilst significantly more limited in geographic extent than, for example, on the Ironstone Uplands landscape character type, the Ironstone capping above the Lias Group mudstones has created distinctive hills, which rise above the surrounding rolling landscape. The limited outcropping of ironstone in the landscape is mirrored by there being only a small number of ironstone landscape features such as ironstone buildings. Similarly, the rich orangey brown soils, characteristic of other Ironstone landscapes, are evident although more limited in extent. Where present, however, such expressions of the underlying geology are important to local character and distinctiveness.

The condition of the landscape is generally good with hedgerows and woodlands, which represent key landscape features, generally being well managed and maintained. Poorly maintained gappy hedgerows, whilst having an impact locally, are not widespread and the Ironstone Hills may be regarded as being in a good condition. Settlements and isolated farms are generally well integrated with their surroundings, as a result of the well-treed character of the landscapes within which they are located.

Whilst individual hills and ridges each have a distinctive profile, few are of sufficient prominence to be regarded as landmarks. However, notable exceptions are Arbury Hill, the highest point in the county, and hills on which telecommunication masts have been sited. These provide focal points in the landscape and an orientation point.

2 IRONSTONE HILLS



Warden Hill

2a EYDON HILLS

The Eydon Hills Character Area is the smaller of the two Ironstone Hills character areas, and occurs to the north of Culworth and extends northwards to Byfield. Low rounded hills with broad caps of Ironstone form two distinct 'hills', between which flows the River Cherwell. Draining into the Cherwell and other surrounding streams are a number of springs originating on the mid slopes of the Ironstone Hills. The abundance of springs is most dominant below the A361, on the western edge of the character area. The Eydon Hills Character Area is characterised by a predominance of large to medium scale arable fields interspersed with smaller fields of improved pasture, grazed largely by sheep. The main settlement consists of the village of Eydon. This compact village is located on the mid slope and aligned along two minor roads, creating a circular route through the settlement. Beyond Eydon, the landscape is deeply rural, with scattered farmsteads dotted throughout the hills. Long distance views are limited within the landscape by landform and vegetation, comprising well-treed hedgerow boundaries and scattered, predominantly deciduous woodland blocks. Whilst broadleaved woodlands are characteristic, occasional coniferous blocks can be seen within the Cherwell Valley. This is a simple, managed landscape that retains a rural character.



View towards Eydon

2 IRONSTONE HILLS



From Fawsley Park to Badby Woods



Fawsley Park/Badby Down

2b Staverton Hills

The Staverton Hills Character Area, located between Charwelton in the south and Daventry to the north comprises a series of distinctive Ironstone hills and ridges, including Arbury Hill, which at 225m ASL is the highest point in the county. The landscape is distinguished as the source of numerous watercourses including the Cherwell, a tributary of the River Thames, and Nene, which eventually drains into The Wash. It therefore forms a principal watershed within Central England. The area is characterised by a combination of both arable and pastoral land, with arable land common on mid slopes and semi improved pasture on both hilltops and lower slopes. Arable fields are generally larger than pastoral fields, which are grazed by both sheep and cattle.

The main settlements in the character area are the villages of Staverton and Hellidon, the latter being marginally smaller in scale and more dispersed around a matrix of minor roads. Staverton is a compact village located to the north of the main road between Daventry and Southam. The village is located on a plateau area between Big Hill and the scarp slope overlooking the River Leam. Distinctive warm, pale orange Ironstone buildings are distinctive features of the area around the village green. More recent Victorian and Edwardian houses are constructed of red brick and integrate well with the warm hues of older Ironstone properties. Beyond these villages, development is confined to scattered farmsteads and dwellings, frequently set back from the roadside and on mid and lower slopes of hills.

There are a number of landmarks, including telecommunication masts scattered on the elevated landform at Newnham Hill, Big Hill and the ridge line south of Bromtrees Farm, windmills at Newnham and south of Hellidon, and historic landmarks including the Iron Age settlement at Arbury Hill.

Woodland cover is principally confined to scattered deciduous copses throughout the agricultural landscape, often surrounding farmsteads. Hedgerow trees and wooded stream courses contribute to the woodland cover, and in combination with the copses can evoke a well-treed landscape. Badby Wood comprises the largest woodland block within the character area and is the most significant area of ancient woodland beyond those parts of the county that once formed part of the Royal Forests within the county. The woodland cover and landform combine to limit views from the Staverton Hills, in particular from lower slopes.

3 IRONSTONE QUARRIED PLATEAU

CHARACTER AREAS

3a Kirby and Gretton Plateau

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View to Seaton across the valley

KEY CHARACTERISTICS

- **Broad, elevated, gently undulating plateau area dissected by valleys with distinctive convex profile valley sides;**
- **drift deposits limited to gentler slopes below more elevated areas of land;**
- **very limited standing or flowing water evident;**
- **expansive long distance views across the open plateau, and into neighbouring counties;**
- **predominantly arable land use with some improved pasture and limited areas of calcareous grassland, often on former quarry sites;**
- **seasonal rotation of arable cropping patterns and improved grassland interrupts otherwise homogenous and simple land cover;**
- **large scale, regular fields mainly enclosed by hedgerows and post and wire fencing;**
- **numerous moderately sized woodlands, many comprising small coniferous and broadleaved plantations;**
- **large, principally coniferous, plantations bordering Corby;**
- **hedgerows generally low and well clipped although intermittent sections show evidence of decline and lack of maintenance;**
- **settlement very limited across the plateau which typically consists of occasional isolated farmsteads and individual dwellings;**
- **network of mainly minor country lanes following elevated land, linking settlements to Corby;**
- **occasional active and disused quarries located across the plateau, indicative of the value of the locally quarried iron ore and ironstone deposits to the growth of Corby; and**
- **use of locally quarried stone for both walls and houses, frequently constructed in distinctive local vernacular.**

3 IRONSTONE QUARRIED PLATEAU

LOCATION AND INTRODUCTION

The Ironstone Quarried Plateau landscape comprises a discrete area of elevated plateau to the northeast of Kirby and east of Corby. It is bordered to the northwest by the Farmed Scarp Slopes landscape character type, and to the east by the Wooded Clay Plateau and Wooded Limestone Hills and Valleys landscape character types. At the county scale of assessment, only one area within Northamptonshire was identified as Ironstone Quarried Plateau. The landscape type is therefore represented as a single character area: The Kirby and Gretton Plateau. The descriptions below therefore apply to the character area as well as the type.

PHYSICAL INFLUENCES

Geology and Soils

The underlying geology is predominantly Inferior Oolite Ironstones of the Northampton Sand Formation. These deposits date to the Middle Jurassic. Extensive mining has been undertaken to reach the underlying ironstone and iron ore deposits, and the landscape contains the largest concentration of former quarry sites in the county. Many former quarry boundaries are now marked by landfill sites. Whilst not widespread, other geological formations are present. The most prominent of these are rocks of the Lincolnshire Limestone Formation. These are the same rocks that form the Limestone Plateaux landscapes to the north at Collyweston. Elsewhere, more limited outcrops of mudstones, sandstones and limestones of the Rutland Formation, and Grantham Formation sandstones, siltstones and mudstones may be identified.

Drift geology across the type is limited to isolated areas of glacial till (diamicton) dating to the Quaternary period. These deposits extend westwards and southeastwards over the Wooded Clay Plateau landscape character type where they cloak the underlying geology and have a significant impact upon land use and landscape character.

Soils throughout the landscape are characteristically a rich orangey brown, reflecting the ironstone geology from which they were derived. Although the characteristics of the soils varies across the landscape type, the majority are disturbed soils from restored ironstone workings, including fine loamy over clayey soils, and often reddish in colour. Small pockets on the outer edges of the type are characterised by slowly permeable calcareous clayey soils, some associated with shallow well drained brashy calcareous soils over limestone. Other areas are slowly permeable, seasonally waterlogged clayey and fine loamy over clayey soils. Located along the most northern section of the landscape type are two areas of shallow well drained brashy calcareous fine loamy soils over limestone, with limited areas in the south also associated with slowly permeable calcareous clayey soils.

Landform

The Ironstone Quarried Plateau is a gently undulating landscape with an altitude of approximately 100m ASL, although land does rise gently to the west to 120m and fall in the east to 70m where streams have cut broad, shallow valleys. The landscape has an elevated character in places, particularly along its higher western fringes where views are possible across the county boundary into neighbouring Leicestershire and Rutland. Away from these elevated landscapes, limited long distance viewing opportunities exist, although wide sweeping views across the plateau are possible with woodlands and landform forming a backdrop and reducing the overall sense of elevation.

Hydrology

Water features are not a significant characteristic of these plateau landscapes. Streams are present, however, often flowing off the plateau northeastwards into the neighbouring Wooded Clay Plateau. The most significant stream is Gretton Brook. This occupies a wide, shallow valley that runs from its source located to the east of the Brookfield Plantation, eastwards to Bulwick where it enters the Willow Brook. Kirby Hall is located in this intimate, quiet and secluded valley. Brooks and watercourses rarely dictate field patterns. Drainage ditches are also not a feature of these plateau landscapes. Other water features that are evident in the landscape comprise small natural field ponds and a limited number of small man made reservoirs and lakes. A particular concentration of water bodies is evident in and around the Priors Hall quarry, some of which have been incorporated into the golf course.

Land Use and Land Cover

Improved pasture, often found in close proximity to calcareous grassland, predominates across the plateau. The distribution of unimproved calcareous grasslands indicates that many have become established on former extraction sites, particularly in the vicinity of Weldon. Arable farming is also evident, particularly arable horticulture. Large scale intensive cereal cultivation, more typical of the Wooded Clay Plateau landscape character type, is also evident, although its distribution is limited to the area southeast of Weldon.

3 IRONSTONE QUARRIED PLATEAU

Woodland and Trees

Large areas of the plateau are unwooded and therefore retain an open and expansive character. However, significant areas of woodlands do exist, and where present, these make an important contribution to landscape character, forming a backdrop to many long distance views. The largest woodlands are Stanion Lane Plantation and Cowthick Plantation, which together define the southern border of the landscape type, and Brookfield Plantation, which marks the boundary between the Ironstone Quarried Plateau and industrial estates on the eastern edges of Corby. These woodlands are predominantly coniferous and contain numerous tracks, but little in the way of public access. Elsewhere woodlands are moderately sized broadleaved and coniferous woodlands, many planted on or bordering former quarry workings. Linear belts of woodland are also a conspicuous and important landscape element, particularly along the Gretton Brook in the vicinity of Kirby Hall. These tend to be located along field boundaries, roads and streams. Where present, these small woodlands give the locality a distinctly intimate, small-scale character, which is in striking contrast to more open areas.

HUMAN INFLUENCES

Buildings and Settlement

There is very little settlement within the Ironstone Quarried Plateau landscape. A small number of roadside cottages are evident, but in the wider landscape there are few isolated houses and farmsteads. This is possibly an indication of it being heavily quarried. The principal settlement is Gretton, which is located mostly on the plateau but also extends down onto the Farmed Scarp Slopes landscape type. The village contains numerous attractive Ironstone houses, many dating to the 17th Century and constructed of local limestone and ironstone and sometimes banded with darker ironstone and roofed with thatch or Collyweston Slate. The southwestern fringe of the plateau is bordered by Corby. This town's eastern fringe is dominated by industrial estates and large-scale factory units and works buildings that exert a strong urbanising influence on neighbouring rural landscapes. Despite the dominance of the town locally, landform and vegetation often obscures views to all but the tallest landscape elements, ensuring that even landscapes in close proximity retain a rural character. This is particularly evident in the grounds of Kirby Hall, which is located within a quiet, secluded valley, although the Rockingham Motor Speedway circuit occupies a prominent position on the horizon. Military buildings are associated with the disused Spanhoe airfield.



Kirby Hall and its parkland setting

Heritage Features

The Elizabethan mansion of Kirby Hall is the principal heritage feature on the Plateau. It displays ornate and intricate architectural detailing, despite parts of it being little more than a shell. The hall is surrounded with gardens, including a restored parterre, and includes the site of the medieval village of Kirby, now only visible as earthworks. The disused Spanhoe airfield to the west of Laxton is also an important heritage feature. The site was used during the Second World to house the USAAF 315th Troop Carrier Group of the 9th Air Force. Dakotas from this airfield towed gliders carrying British, Polish and American troops to the D-Day beaches. Huts, the runway and a grounded RAF fighter plane are potent reminders of its history.

3 IRONSTONE QUARRIED PLATEAU

Boundaries and Field Patterns

Hedges typically comprise hawthorn and are low and well clipped although overgrown hedges are conspicuous along some roads. Where present, overgrown hedges form dense visual screens thus limiting expansive views across the plateau. Where low and well maintained, however, the hedgerows divide up areas of pasture and arable land into a neat, geometric pattern. Where pasture is the prevalent land use, post and wire fencing is often used to reinforce hedges. Post and wire fences are also used to divide up arable fields, possibly where hedgerows have been lost or removed. Hedges often contain mature or semi-mature oak, a number of which are stag headed. These are an important landscape feature, contributing further to the landscape's tree cover. Fields on the plateau are typically large, to medium to large, particularly to the east of Corby. There is a particular concentration of small and small to medium sized fields to the south of Gretton.

Communications and Infrastructure

A number of direct, busy 'A' roads run through the landscape to the east of Corby. Beyond these principal routes, however, roads are limited to quiet winding country lanes with wide verges that run along elevated areas of the plateau linking villages in the surrounding landscape to Corby. Large areas of the landscape are inaccessible to road traffic, allowing wide areas to retain a quiet, rural character, despite the proximity of urban areas and influences. A significant feature to the south of Kirby is the Eurohub. This is a 13.35 hectare (33 acre) site, which forms part of the Channel Tunnel rail freight distribution centre. All other infrastructure is centred on Corby and its surroundings, although these have limited local impact. A rail line runs in a tunnel beneath Brookfield Plantation and transmission lines pass through Stanion Lane Plantation; however, woodland obscures views to the pylons and venting shafts associated with these features.

Recreation

Kirby Hall, owned and managed by English Heritage, is the principal focus of tourism on the plateau. The Rockingham Circuit is also a significant attraction, although interest is principally confined to race days and special events. In the wider countryside, pedestrian access is limited, due to the relative absence of footpaths. The Jurassic Way is a notable exception, diverting onto the plateau, from the Farmed Scarp Slopes between Gretton and Shotley, and providing some expansive views across the Welland to Rutland for footpath users.



Rockingham Speedway

AESTHETIC AND PERCEPTUAL QUALITIES

Despite the close proximity of urban and industrial areas of Corby, much of the Ironstone Quarried Plateau landscape retains a deeply rural, quiet character, with many areas being difficult to access. In open areas, where long distance views into neighbouring Rutland are possible, a sense of elevation and remoteness is often experienced. In contrast, where landform and vegetation limit views, a more intimate quiet character is experienced. This is particularly the case in the broad valley of the Gretton Brook in the vicinity of Kirby Hall. The Rockingham Speedway Circuit on the eastern perimeter of the town and to the south of the Gretton Brook Valley is a notable reminder of the proximity of Corby. The noise generated during race events is likely to extend its influence further into otherwise tranquil areas of the landscape. Views to active and former quarry workings, and to industrial elements on the fringes of Corby, act as a reminder of the area's importance in the past as an iron ore mining and steel producing centre.

LOCAL DISTINCTIVENESS, LANDSCAPE CONDITION AND LANDSCAPE CHANGE

Long distance views over open areas of the plateau are particularly important. A noteworthy view is from the Jurassic Way to the west of the Spanhoe airfield across the Welland Valley to the Windmill on the outskirts of Morcott.

The condition and visual appeal of the landscape varies and is very much dependent on the influence that urban features and quarrying has on the landscape, and views of it. In rural areas away from the influence of Corby, the landscape is generally in a good condition, although over-mature hedgerows and some stag headed oaks indicate a decline in landscape management.

3 IRONSTONE QUARRIED PLATEAU

3a Kirby and Gretton Plateau

The Kirby and Gretton Plateau Character Area is the only landscape character area associated with the Ironstone Quarried Plateau landscape character type within the county. The descriptions above therefore apply to this single character area.

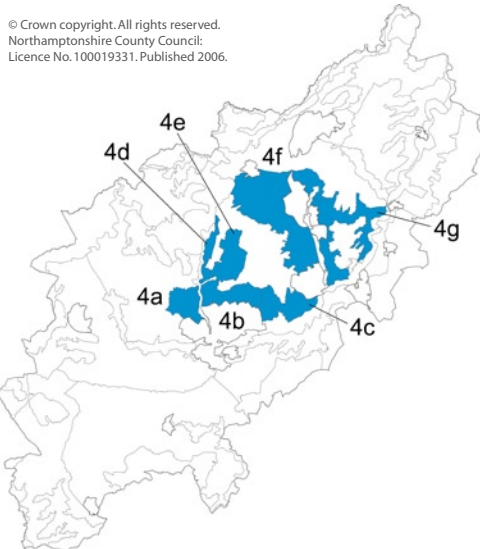


Jurassic Way crossing the Plateau

4 ROLLING IRONSTONE VALLEY SLOPES

CHARACTER AREAS

- 4a Harlestone Heath and the Bramptons
- 4b Moulton Slopes
- 4c Ecton and Earls Barton Slopes
- 4d Hanging Houghton
- 4e Pitsford Water
- 4f Kettering and Wellingborough Slopes
- 4g Irthlingborough Slopes



View over Valley slopes

KEY CHARACTERISTICS

- **Broad valley slopes dissected by numerous tributary streams;**
- **Ironstone geology expressed in local vernacular buildings and in rich red soils;**
- **rolling landform, extensive views and sense of exposure on some prominent locations;**
- **steep slopes adjacent to more elevated landscapes;**
- **numerous water bodies including the county's largest reservoir;**
- **productive arable farmland in medium and large scale fields predominates on elevated land although sheep and cattle pastures also prevalent, often in smaller fields adjacent to watercourses;**
- **agricultural practices create a patchwork of contrasting colours and textures extending across valley slopes;**
- **where broadleaved woodlands and mature hedgerow trees combine, these impart a sense of a well treed landscape;**
- **hedgerows generally low and well clipped although intermittent sections show evidence of decline;**
- **well settled with numerous villages and towns;**
- **landscape directly and indirectly influenced by the close proximity of many of the county's urban areas; and**
- **building materials vary although vernacular architecture and churches display the local ironstone.**

LOCATION AND INTRODUCTION

The Rolling Ironstone Valley Slopes landscape character type occupies the heart of Northamptonshire. It comprises a distinctive landscape of rolling valley slopes bordering the floodplains of the River Nene and its tributaries, the Brampton Valley and the River Ise. The landscape surrounds elevated areas of Clay Plateau where drift deposits overlie and obscure the surface expression of similar solid geology. It also borders the southern fringes of the Wooded Clay Plateau landscape character type and defines the eastern limits of the Undulating Hills and Valleys. A number of urban areas, notably Northampton, Wellingborough and Kettering may be found within and bordering the landscape. Seven landscape character areas have been identified within the overarching Rolling Ironstone Valley Slopes landscape character type, indicating subtle, localised variations in land cover and land use elements

PHYSICAL INFLUENCES

Geology and Soils

Whilst not the most extensive rock type in the landscape, the Inferior Oolite Ironstones of the Northampton Sand Formation are the most prominent and important in terms of the contribution made to landscape character. These deposits, which date to the Middle Jurassic, were once more extensive. They have been eroded by rivers and streams to leave distinctive ridges and hills, forming watersheds between the streams that drain into the main channel of the River Nene and its tributaries. These rocks have been extensively quarried in history, with significant former extraction sites having been identified on a number of hill tops, particularly in the vicinity of Rothwell. The eastern fringes of the Rolling Ironstone Valley Slopes comprise significant deposits of Blisworth Limestone Formation. These rocks form part of the Great Oolite Group and overlie the Ironstones. Together the Ironstones and Limestones extend into the neighbouring plateau landscapes, where significant drift deposits obscure all surface expression of them. The Ironstone overlies softer Lias Group rocks of the Lower Jurassic comprising Whitby Mudstones. This relatively softer rock unit has been more easily weathered and outcrop on the steep slopes that fall into the valleys.

Drift geology across the landscape type is limited to very isolated deposits of glacial till (diamicton) and glacial sand and gravel. These deposits are more extensive on the neighbouring Clay Plateau and Wooded Clay Plateau landscapes. However, isolated patches survive on the most elevated hills and ridge tops where they blur the transition between the Rolling Ironstone Valley Slopes and neighbouring areas of plateau. Alluvial clays and silts are also evident as narrow bands along the floor of tributaries streams of the River Ise and Brampton Valley.

Soils across the Rolling Ironstone Valley Slopes are complex and contain bands of varying types. The most westerly of the valley slopes has the simplest soil cover, comprising well drained brashy fine and coarse loamy ferruginous soils over ironstone, with a small area of slowly permeable calcareous clayey soils. Whilst the Moulton Slopes comprise the same soils, they also include small pockets of well drained calcareous clayey and fine loamy soils over limestone, in places shallow and brashy, slowly permeable, seasonally waterlogged, clayey soils with similar fine loamy over clayey soils and an isolated area of deep, well drained coarse loamy and sandy soil. The Ecton and Earls Barton Slopes again have comparable characteristics to the Moulton Slopes; the isolated area of deep, well drained coarse loamy and sandy soil does, however, give way to a larger area of deep, well drained calcareous clayey soils associated with similar but slowly permeable soils. The western edge of the landscape type has relatively simple soil coverage, combining well drained brashy fine and coarse loamy ferruginous soils over ironstone and slowly permeable seasonally waterlogged clayey soils with similar fine loamy over clayey soils in generally equal amounts. The Kettering and Wellingborough Slopes offer the most complex soil characteristics, with linear bands of soils evident in an east - west direction. The soils comprise areas of well drained brashy fine and coarse loamy ferruginous soils over ironstone, slowly permeable seasonally waterlogged clayey soils with similar fine loamy over clayey soils, fine loamy over clayey and clayey soils with slowly permeable subsoils and slight seasonal waterlogging, slowly permeable calcareous clayey soils, and areas of restored iron workings. To the east, the soil once again has a simple composition, including areas of well drained brashy fine and coarse loamy ferruginous soils over ironstone and well drained calcareous clayey and fine loamy soils over limestone, in places shallow and brashy and again in generally equal amounts.

Landform

The complex landform evident in the Rolling Ironstone Valley Slopes landscape character type has arisen from erosion by streams draining the neighbouring upland landscapes into the River Nene and its principal tributaries. Individual watercourses have eroded side valleys, often at right angles to the main tributary channels and course of the Nene. In many cases, the dendritic pattern of tributaries has eroded further and less prominent side valleys, adding to the complexity of landform patterns. The overall pattern, therefore, comprises a principal valley formation dissected by numerous tributaries which themselves create undulations across areas of otherwise smoothly sloping landform. The most elevated areas are formed by hard caps of Ironstone and Limestone, which have formed elevated ridges and hills. These act as watersheds between neighbouring streams. The most elevated landscapes exist to the west of Rothwell, where land rises to 140m ASL. However, Ironstone caps and valley sides can also be observed at much lower elevations, closer to the main channel of the Nene.

4 ROLLING IRONSTONE VALLEY SLOPES

Slopes associated with the ironstone capping are generally shallow, thus creating distinctive broad hills and ridges. Steeper slopes and a rolling landscape are characteristic of areas of Lias Group geology. Here, softer rocks have been eroded to form narrow, steep sided valley systems. However, a wide, shallow sloped valley can be observed to the south of Scaldwell within which the Pitsford reservoir is located.

Hydrology

The River Nene, or perhaps more importantly its tributaries, are the prominent hydrological influences on the landscape. These form a dendritic pattern and have eroded the principal valley slopes to form a rolling landscape that shelves down towards the main channels of the Nene, Brampton Valley and Ise. Tributary streams rarely originate within the landscape. They tend to rise on the neighbouring clay plateau landscapes and flow through the Rolling Ironstone Valleys, where they combine to create increasingly powerful flows and more deeply incised valley formations. Reservoirs are also an important landscape feature. These tend to be located in natural valley formations, where a barrier has been constructed to collect large volumes of river water. The main reservoirs are Sywell, Thorpe Malsor, Cransley and Pitsford. Pitsford Water is by far the largest and is retained by an impressive dam, visible from the A508 into Northampton. All are located on Whitby Mudstone geology and bordered by ironstone hills and ridges. The form of the reservoirs is often dictated to by the presence of the harder ironstone geology.

Land Use and Land Cover

Cereal cultivation predominates, particularly on the Ironstone and Limestone geology that forms more elevated land above the steeper rolling valley slopes. Particularly significant concentrations of cereal production are evident to the east of Barton Seagrave. Numerous arable fields have uncultivated buffer strips running adjacent to hedgerows. These are important wildlife corridors and protect hedgerow habitats from pesticide and fertiliser damage. Whilst cereal cultivation and horticulture is prevalent, improved pastures become more frequent on the valley slopes, particularly where the steepness of slopes precludes the use of farm machinery, and along valley bottoms, which may become seasonally wet. Pasture fields are also more frequent close to farmsteads. On particularly steep slopes, for example along the River Ise to the northwest of Rothwell, neutral and calcareous grasslands become more frequent, indicating that these areas may be marginal and not suitable for improvement. Significant areas surrounding Sywell and Pitsford reservoirs have been designated as Country Parks. Here, land has been taken out of productive agriculture and managed to provide a wide range of wildlife habitats. Set-aside land is also a conspicuous feature of some of the agricultural areas.

Woodland and Trees

Whilst woodlands are not a dominant landscape feature, they nevertheless make an important contribution to landscape character across the Rolling Ironstone Valley Slopes. Small and moderately sized mixed and deciduous woodlands are prevalent and are largely associated with designed parklands, fringing reservoirs or cloaking particularly steep slopes. Linear broadleaved woodlands are also conspicuous along a number of streams. Small broadleaved coverts are also dotted throughout the agricultural landscape. There is a significant area of coniferous planting at Harlestone Heath, and relatively large areas of broadleaved woodland occur at Overstone. Very few woodlands in the landscape are ancient.

Hedged field boundaries often contain ash and oak as mature and semi-mature hedgerow trees. In views up and along rolling valley slopes, hedgerows and perhaps more importantly hedgerow trees, combine with areas of woodland to give the impression of a well wooded landscape. The 'borrowed' effects of woodland from the neighbouring Wooded Clay Plateau landscape character type further contribute to the sense that the Rolling Ironstone Valley Slopes are perhaps more wooded than they actually are.

HUMAN INFLUENCES



Thatched cottages at Boughton

Buildings and Settlement

The Rolling Ironstone Valley Slopes landscape character type is relatively well settled. Numerous villages, many containing Conservation Area designations, and hamlets occupy sheltered locations on the slopes above rivers and streams. The majority are small, compact villages and tend to be located at the junction of two or more roads. Here, older village properties, typically constructed of local ironstone or limestone, congregate around a prominent church. More recent housing forms linear extensions to a number of settlements or, in a number of instances 'estates', on the periphery of the village. Due to their sheltered locations, many villages are not widely visible from the surrounding countryside. However, church spires often punctuate the horizon and indicate the location of a particular village. New housing can also sometimes be seen extending onto more visually prominent areas of the landscape.

Urban areas have a more significant influence on landscape character, as the Rolling Ironstone Valley Slopes are bordered by seven of the county's fifteen urban areas. The influence is both direct and indirect. Direct influences include views to urban areas and the distinctive orange arc of light that rises above these towns at night. The largest urban area is Northampton, which forms the southern boundary of the Harlestone Heath and Moulton Slopes character areas. Wellingborough, Desborough and Kettering also have a significant influence on the character of the Kettering and Wellingborough Slopes character area. These urban areas occupy entire hillsides and, as a consequence, are visible over wide areas. Rothwell, although a relatively small and compact urban area, also exerts a strong influence on the local landscape. This town occupies a relatively high ridge that rises in the north to 130m ASL. Indirect influences, which become less conspicuous with distance from each urban area, include suburban building styles and materials in otherwise rural areas, and a greater number of 'A' roads, for example the busy dual carriageway that runs to the west of Wellingborough.

Despite these influences, wide areas of the Rolling Ironstone Valley Slopes retain a productive and well managed rural character. Numerous farms and small hamlets are dispersed throughout the landscape. Whilst particular concentrations can be observed around estates and villages, a number occupy relatively remote locations and are only accessible along long tracks.

Heritage Features

This is a long settled landscape, with evidence of occupation stretching back as far as the Neolithic period. Surviving fragments from these times include the Three Hills, a collection of barrows on a hill to the south of Woodford, which are thought to date to the first farmers, and a barrow to the west of the Boughton Estate. Barrows are funerary monuments that elsewhere have been interpreted as territorial markers and may indicate that local populations were exerting a claim over the surrounding landscape by the presence of their ancestors. It is possible that the communities that constructed these monuments were living on the gravel terraces bordering the Nene to the south, and sited them to be visible from their small farming settlements. Whilst infrequent, these monuments are a potent reminder of the landscape's long settlement history. They are likely to have been more widespread; however, development and agriculture have removed all traces of other similar sites.

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The presence of historic houses, parklands and estates within the landscape are a more recent and tangible link to the past. Three historic parks on the English Heritage Register are located on the Rolling Ironstone Valley Slopes landscape, all sited to take advantage of the dramatic landform and panoramic views. The most important is Boughton Park, Listed Grade I. This exerts a strong influence over the surrounding landscape, with avenues of trees, some dating from the late 17th Century stretching as far as Kettering in the west and Geddington Chase. The site of Boughton Hall and Great Harrowden Hall are also important sites. Non-registered gardens are an important element of the landscape with wooded parkland landscapes evident at Ecton, Thorpe Malsor and Cranford St Andrew. The Triangular Lodge is also an important historic landscape feature. The lodge represents an extraordinary piece of symbolic architecture located within the Rushton Estate, which has been the principal seat of the Tresham family from the 15th Century. The monument was built by Sir Thomas Tresham and was designed as a covert declaration of his Catholic faith, with its construction on the basis of an equilateral triangle taken to symbolize the Holy Trinity and the Mass.

Boundaries and Field Patterns

Large, and medium to large fields predominate across the landscape, particularly along the tops of ridges and hills where landform is less steep. Where rolling landform and steeper slopes are prevalent, small and small to medium sized fields are more common. Regular and sub regular fields are common, and there appears to be a tendency for regular fields to occupy the more gently sloping land on ridges and hills. Discontinuous fields, more commonly found on the neighbouring clay plateau landscapes are also evident, although not common. Field patterns tend to follow landform, emphasising the rolling character of the landscape. However, the patterns they create in the landscape are difficult to appreciate, due to the rolling landscape limiting views to wide tracts of the landscape in which the pattern of fields might be identified.

Field hedges are, on the whole, low and well clipped giving the landscape a well maintained and managed character, although overgrown and gappy hedges are also evident. Significant lengths of hedged boundaries contain numerous mature hedgerow trees. This is particularly the case where hedgelines border watercourses. These are an important landscape feature, contributing to the landscape's well treed character.

Communications and Infrastructure

The Rolling Ironstone Valley Slopes contain a number of busy roads. The principal route through the landscape is the A14 between Coventry and Cambridge, which also forms the western boundary of Wellingborough. A number of other busy roads converge on the urban areas located within and bordering the landscape. These principal routes tend to avoid hilly areas and weave along the lower, gentler valley slopes. A dense network of minor roads is also evident across the landscape. Many can be observed to run along the distinctive ironstone ridges then drop, sometimes steeply, down valley slopes into the valleys. Other, routes linking these ridge roads rise and fall with the rolling landform. Together, this network of minor roads gives the landscape a distinctive grain.

Beyond the urban areas, a rural character prevails, with only limited infrastructure development. The main line railways linking Northampton and Kettering to Birmingham, Leicester and Peterborough run through limited stretches of the landscape and have minimal impact on local character. Perhaps more significant are the high voltage transmission lines that run through Kettering and Wellingborough Slopes landscape character area.

Recreation

Despite the close proximity of large urban areas, there are only limited recreational opportunities in the Rolling Ironstone Valleys. Brixworth Country Park, on the fringes of Pitsford Water, and Sywell Country Park bordering Sywell Reservoir are major visitor attractions, offering a range of informal recreational opportunities centred around enjoying wildlife and the countryside. Pitsford Water is also important and offers a range of water based recreation opportunities.

There is a dense network of public rights of way criss-crossing the landscape. The principal routes, however, are the Midshires Way between Harlestone and Church Brampton and a section of the Nene Way that runs along the southern edge of the landscape to the north of Irthlingborough. Historic parks and country houses, and sites including the Triangular Lodge, are also important tourist attractions. A number of golf courses, taking advantage of challenging landform and the close proximity of urban populations, are located within the landscape type.

AESTHETIC AND PERCEPTUAL QUALITIES

Despite urban influences having an impact on the character and perception of wide tracts of the landscape, much retains a quiet rural character. The landscape is perceived as busy, settled and primarily agricultural, with most views encompassing extensive areas of productive arable farmland, with fields defined by well-maintained hedgerows. Where various land uses are evident across valley sides, contrasting colours and textures provide visual interest. Woodlands and hedgerows are important textural elements and add to the visual appeal of the landscape. Where present, woodlands combine with the undulating topography to give visual containment and a more pronounced sense of intimacy. This contrasts with the elevated valley sides, where open views over wide areas have a more open character.

LOCAL DISTINCTIVENESS, LANDSCAPE CONDITION AND LANDSCAPE CHANGE

The Ironstone geology is particularly important to the landscape. Whilst significantly more limited in extent than, for example, on the Ironstone Uplands landscape character type, Ironstone caps above Lias Group mudstones have created distinctive hills and ridges, which often dictate the alignment of watercourses and roads giving the landform a distinctive grain. Despite its limited extent, large areas have been quarried in the vicinity of Rothwell and Kettering and the rock finds expression in numerous villages and churches. Rich orange red soils, characteristic of other Ironstone uplands, are also limited in extent. However, where present, such expressions of the underlying geology are important to local character and distinctiveness.

The condition of the landscape is generally good. Hedgerows and woodlands, which represent key landscape features, are on the whole well managed and maintained. Poorly maintained gappy hedgerows, whilst having an impact locally, are not widespread and the Rolling Ironstone Valley Slopes may be regarded as being in a good condition. Settlements and isolated farms are generally well integrated with their surroundings as a consequence of the well treed character of the surrounding landscape. However, larger settlements and urban areas have seen rapid expansion in recent decades, leading sometimes to insensitive development on their fringes, which can have a negative impact on local landscape character.

Whilst individual hills and ridges each have a distinctive profile, few are of sufficient prominence to be regarded as landmarks. Individual landscape elements can, however, be regarded as landmarks. These tend to be prominent vertical elements such as water towers and church spires, which, when sited on hill and ridge tops can be seen across wide areas. Distinctive landscape features such as the Triangular Lodge and Pitsford Water, whilst of limited visual impact, also comprise locally important landmarks.

4 ROLLING IRONSTONE VALLEY SLOPES



Harlestone Heath and the Bramptons

4a Harlestone Heath and the Bramptons

The Harlestone Heath and the Bramptons Character Area is the westernmost of the character areas and is located on the northeastern fringes of Northampton. It comprises the ironstone hills and valley slopes that define Brampton Brook, a narrow tributary stream of the Brampton Valley. The highest point is Brampton Hill, which rises to 122m ASL. The main settlements are Chapel Brampton and Church Brampton. Both are nucleated settlements located on the mid slopes of Brampton Hill. Harlestone, a dispersed settlement is located within a wooded valley below a significant area of coniferous woodland on Harlestone Heath. Beyond this, isolated farms occupy sheltered positions on the mid slope of the valley. Wide views over a rolling, productive arable landscape are characteristic of the area, with fields of ploughed soil and growing crops combining with hedgerow trees and small woodlands to create an attractive, if simple rural landscape. Well maintained hedges reinforce the landscape's well managed appearance, and hedgerow trees add to its well treed character. The southeast grain of the landscape is created by the alignment of the valley. This grain is further reinforced by the course of the A428, the minor road through Church Brampton, and the railway, a distinctive linear element cutting through the heart of the landscape.



Moulton Slopes

4b Moulton Slopes

The Moulton Slopes Character Area is located to the north of Northampton. It comprises a broad valley, through which flows the Sedge Brook, a tributary of the Brampton Valley, and a smaller watercourse, which flows southwards into Northampton to the west of Overstone. From the upper slopes of the valley, wide views across rolling farmland are possible. From the slopes above Moulton, views southwards to Northampton are largely screened by vegetation and landform. However, tall urban elements such as the Express Lifts Tower are prominent features punctuating the skyline.

The landscape is relatively well settled, with the villages of Boughton, Moulton and Overstone lying along the winding road that runs along the southern slopes of the Sedge Brook valley. Pitsford is also located within the character area. This small village is situated on the watershed between Pitsford Water and the valley of the Sedge Brook.

Land cover is typically arable farmland, although improved and semi improved pastures are more dominant along lower valley slopes and along watercourses. Woodland cover is low, although significant areas of deciduous woodland can be found in the vicinity of Overstone. Cowpasture Spinney is a particularly interesting feature. This is a linear belt of woodland running along the stream to the west of Overstone Park. Large areas of woodland are also features of designed parklands, as at Overstone Park and Boughton.

4 ROLLING IRONSTONE VALLEY SLOPES



Ecton and Earls Barton Slopes

4c Ecton and Earls Barton Slopes

The Ecton and Earls Barton Character Area occupies the valley slopes to the north of the River Nene between Northampton and Wellingborough. It is a gently rolling landscape. Ironstone slopes running parallel to the Nene have been dissected by valleys draining the adjacent uplands southwards into the Nene. Areas of Oolitic limestone are conspicuous to the east of the area as these form distinctive, if limited plateau areas. The main feature of the landscape is Sywell Reservoir and Country Park. The Edwardian reservoir was constructed across the valley of the Ecton Brook and was originally built to supply water to Higham Ferrers and Rushden. The Country Park dates to the 1970s and is a popular local attraction. The reservoir is fringed by woodlands, belts of poplar trees, sheep grazed pastures and arable farmland. Other areas of recreational interest include Ecton Brook Linear Park and picnic areas along its length.

The rolling landscape beyond the park is characterised by medium to large arable fields and areas of pasture, usually within smaller fields adjacent to watercourses and on the edge of settlements. A significant area of broadleaved woodland is conspicuous to the north of the area and at Ecton, associated with an area of parkland. The eastern half of the area contains no significant areas of woodland, although hedgerow trees provide some cover and shelter. A number of important tree groupings are evident on the skyline from within the area, including The Rookery at Great Doddington and a smaller tree group at Manor Road, Earls Barton.

The landscape is relatively well settled, including the large compact post-war settlement of Earls Barton situated on the southern edge of the character area overlooking the valley of the Nene. Wilby, Great Doddington and Ecton provide smaller linear settlements located on the mid slopes. Beyond this lies a landscape characterised by scattered farms and dwellings. Connecting the settlements of Ecton, Earls Barton and Wilby with the surrounding urban centres of Northampton and Wellingborough is the busy A4500. Other roads are minor and frequently aligned perpendicular to the main valley of the Nene. Although not abundant, public rights of way are scattered across the area, including a limited stretch of the Nene Way around Doddington. Water towers located on the upper valley slopes and plateau areas provide prominent landmarks, along with many church spires in settlements on the valley slopes. One of the most notable church towers is the Saxon Church tower at Earls Barton. Whilst the main body of the church is built from a combination of Northamptonshire ironstone and limestone, the tower is constructed from the Upper Lincolnshire Limestone Barnack Rag stone, infilled with locally found Wellingborough Limestone from the Rutland Formation (former Upper Estuarine Limestone). Every century from the tenth onwards is represented in the fabric and fittings of the building.



Hanging Houghton

4d Hanging Haughton

Hanging Haughton Character Area is the most linear character area within the type, is located along the eastern edge of the Brampton Valley and is bordered to the south by a tributary of the main valley. The character area forms the valley slopes rising to the Clay Plateau in the east. From the upper valley slopes, long distant panoramic views are possible over the surrounding landscape, including views over the River Valley Floodplain towards the Undulating Hills and Valleys.

The main settlement is Hanging Houghton, a small linear settlement that has developed on the upper slopes adjacent to the plateau landscape. Beyond this lies a largely rural landscape with scattered dwellings and farmsteads, such as those found on the outskirts of Draughton and Lamport. Whilst a number of farms are located adjacent to minor roads, others are accessed via trackways. Although located beyond the boundary of the Rolling Ironstone Valley Slopes, the settlement of Brixworth remains visually important due to its prominent position on the upper slopes. Significant historic features are contained within the settlement, notably a Saxon church built in 680AD on the northern boundary.

The landscape is characterised by a predominance of arable land, although areas of improved pasture are evident below Brixworth and around Lamport, extending down and along the sloping landform towards the River Valley Floodplain and Hanging Haughton. Defining the fields are a combinations of low, clipped hedgerows and wooden post and rail fences. Whilst woodland in the character area is limited, the small deciduous copses combine with the many hedgerow trees and woodland in the surrounding landscape types to give the impression of a well treed landscape. Clint Hill Fox Covert is a prominent copse of mixed composition descending the slopes of Clint Hill.

Bordering a large proportion of the area to the east is the A508. Whilst this road enters the area in two locations, road access is otherwise limited to three minor roads connecting plateau villages with the surrounding landscape. Pedestrian access is also limited with only occasional rights of way, connecting settlement on the eastern edge of the type with the wider landscape, including the Brampton Valley Way, and Midshires Way, which is located along the length of the Brampton Valley and follows the course of a dismantled railway. There are no other recreational facilities within the area.

4 ROLLING IRONSTONE VALLEY SLOPES



Pitsford Water

4e Pitsford Water

The Pitsford Water Character Area is largely surrounded by the clay plateau with the exception of the southwestern corner, which is bordered by a tributary of the River Valley Floodplain. It comprises a wide, shallow sloped valley, in which is located the prominent landscape feature of Pitsford Reservoir. Bordering the reservoir, the distinctive ironstone hills and ridges have been formed by tributaries draining from the surrounding Clay Plateau into the reservoir.

Land cover is typically a combination of both arable and improved pastoral land with evidence of unimproved calcareous pasture. A pastoral landscape frequently occurs around villages within the character area and on steeper valley slopes, in particular along the western boundary. Whilst large to medium scale fields predominate, a network of smaller enclosures is apparent to the east of Scaldwell village within the tributary valley that feeds the reservoir. Woodland cover is typical of the landscape type. Surrounding Pitsford Reservoir are a number of woodland blocks, primarily with a coniferous composition, although mixed and broadleaved copses are apparent. Willow Carr is also developing around the periphery of the nature reserve. Small spinneys and linear copses can also be found within the area along with parkland trees, and planting at Moulton Grange. Frequent hedgerow trees and tree lined stream boundaries combine with woodlands to create a well wooded landscape in localised areas.

The landscape is moderately settled, with the villages of Old and Scaldwell lying along winding roads descending the valley landscape. Whilst the village of Old has developed in a compact form around a road junction with a prominent church lying close to its centre, the Ironstone village of Scaldwell, although also compact, has a more pronounced linear form. The outer edges of Holcot are also evident, again with a prominent church spire, although a large proportion of the village lies within the adjacent Clay Plateau landscape type. Beyond this, scattered farms and dwellings predominate, generally accessed via a minor track from the main road. Minor roads within the area can be busy, for example the Holcot Road that crosses over the reservoir and provides access to surrounding settlements such as Brixworth, and busy 'A' roads beyond the area.

Although not always prominent in views from the character area, the Pitsford Reservoir provides an important landmark feature. It is the largest reservoir within the landscape type, and indeed the county, and is retained by an impressive dam on the southwestern edge of the area, visible from the A508 that forms the western boundary. The reservoir, edged by sandbanks, provides not only a valuable recreational resource for fishing, boating, sailing, bird watching and picnics, but also an important wildlife habitat, in particular for bird life and waterfowl. Located on the western edge of the reservoir, Brixworth Country Park provides cycle hire, a residential centre and visitor centre, and is one of the most recently developed country parks in Northamptonshire. The rights of way network within the area is also extensive, criss-crossing the rolling valley landscape.

4 ROLLING IRONSTONE VALLEY SLOPES

4f Kettering and Wellingborough Slopes

The Kettering and Wellingborough Slopes Character Area is the largest character area within the Rolling Ironstone Valley Slopes landscape type, extending from the northern edge of Wellingborough in the south to the southern limits of Desborough in the north. Kettering urban area forms part of the eastern boundary with Rothwell in the northwest of the area. The character area comprises a gently rolling landscape of ridges and valleys orientated in a northeast to southwest direction. The area is bordered by the River Ise to the east, Sywell Plateau to the west, along with a small section of the Cottesbrooke and Arthingworth Undulating Hills and Valleys and the Geddington Chase Wooded Clay Plateau to the north. From the upper slopes of the valleys, wide views are possible across surrounding landscapes, although woodland blocks intervene in a number of views, in particular to the north towards the Wooded Clay Plateau. From lower slopes, views along the valleys are more channelled and contained, for example, along the valley of the Ise, south of Desborough.



Urban Edge and the A14



Orlingbury

The landscape is relatively well settled, with the larger settlement of Boughton and villages of Weekley, Rushton, Thorpe Malsor, Loddington, Pytchley, Isham, Orlingbury and Little Harrowden occupying, in the majority of cases, the upper valley slopes. The settlements are generally compact in form and have developed around the junction of two or more roads, many with prominent church towers such as the square towers at Orlingbury, Pytchley and Rushden. The village of Loddington is an exception, however, as it has developed in a distinctive circular form. The southwestern edge of Geddington is also visible on the edge of the valley slopes, although the majority of the village is set within the adjacent Wooded Clay Plateau landscape type. Hamlets can also be found scattered throughout the landscape, again occupying the upper valley slopes, including Thorpe Underwood and Orton. Urban influences from Wellingborough, Kettering, Rothwell and Desborough are significant in the character area. Due to their location on rising landform and ridgelines, with descending development evident on the valley sides, views of the urban areas are prominent. Surrounding and connecting the urban areas are a number of busy 'A' roads including the A43(T), A14(T), A6(T) and A6003 that cut through the landscape. Glimpsed views are possible of these elements from many locations, creating intrusive urban elements in a predominantly rural setting. The railway line positioned on a prominent embankment north of Kettering, along with high voltage pylons criss-crossing the landscape, create further evidence of the close proximity of large urban centres. Other minor roads ensure that the area is relatively accessible, and whilst the majority are quiet rural roads, others appear to have a busy character, for example between Desborough and Rushton.

4 ROLLING IRONSTONE VALLEY SLOPES

Land cover typically comprises large to medium scale arable fields interspersed with semi improved pasture, often smaller in scale and largely grazed by sheep. Small and medium scale fields also frequently occur in the northwestern section of the area. In general, pastoral fields are located in close proximity to settlements and individual farmsteads. Evidence of 'horsiculture' is also prominent on the edge of settlements with an abundance of temporary fencing, often creating an untidy appearance to the landscape in what, in some cases is an edge already degraded by sprawling urban form. Woodland cover is typical of the landscape type, including small to moderately sized broadleaved woodlands largely associated with parkland landscapes such as Boughton Park and Orthingbury Hall. Woodland is also closely associated with many village settlements including Rushton and Great Cransley. Wooded streams and spinneys surrounding Thorpe Malsor and Cransley reservoirs contribute to the overall woodland cover within the landscape resulting in many valleys having a well treed character. The most significant woodland planting occurs around Weekley Hall Wood, south of Geddington, where deciduous woodland, areas of new woodland planting, coniferous strips and limited felled and mixed woodlands combine to create a well-wooded character north of Kettering.

Recreational opportunities within the area are limited, despite the close proximity of large urban centres. Boughton House and Park provide the main attraction, comprising a 500 year old Tudor Monastic building, gradually enlarged until the French style addition in 1695. The extensive parkland landscape contains historic tree avenues, woodlands, lakes and riverside walks. Numerous rights of way pass through the character area and a golf course can be found on the southwestern boundary of Kettering.



Irthlingborough Slopes

4g Irthlingborough Slopes

The Irthlingborough Slopes Character Area represents the easternmost of the character areas, bordered to the west by the River Ise Floodplain, the River Nene to the south and east, and Geddington Chase Wooded Clay Plateau to the north. Central to the area is Burton Wold Clay Plateau, which is surrounded by the Irthlingborough Slopes. Burton Latimer and Irthlingborough comprise two urban areas adjacent to the character area. Defining the area is a series of valleys and slopes generally orientated in a northeast, southwest direction. This is particularly prominent where tributaries on the eastern side of the area, draining from the surrounding plateau landscape, descend into the valley of the Nene. From the upper slopes wide, uninterrupted, open views are possible over the surrounding landscape, including views to surrounding urban areas often prominent on rising landform and ridgelines.

4 ROLLING IRONSTONE VALLEY SLOPES

The landscape is relatively well settled, with settlements on the eastern side of the area being particularly large. Barton Seagrave, on the eastern side of Kettering sprawls over a ridgeline on the edge of the area adjacent to the River Ise. This large compact post-war settlement is bordered to the south by the A14(T) and bisected by the A6003. Finedon is the second largest settlement within the area. It is situated on the edge of the area adjacent to the Clay Plateau, and divided by the busy A6(T) and A510 roads. Beyond this, the main settlement pattern comprises a number of small village settlements: Grafton Underwood, Warkton, Slipton, Cranford St Andrew and Cranford St John, Tywell, Woodford, Great Addington and Little Addington. In general, these are linear settlements that have developed on the mid slope. Woodford and Great Addington differ, however, in that the former has originated as a compact settlement with more modern expansions, and the latter, although primarily linear, has expanded along other roads leading into the village. Scattered dwellings and farmsteads are also located throughout the area, frequently set back from the roadside and accessed via a minor track. Along with the main 'A' roads cutting through the area creating movement and noise within the landscape, minor roads ensure the area is relatively accessible. High voltage pylons criss-crossing the landscape provide further urban elements within the character area.

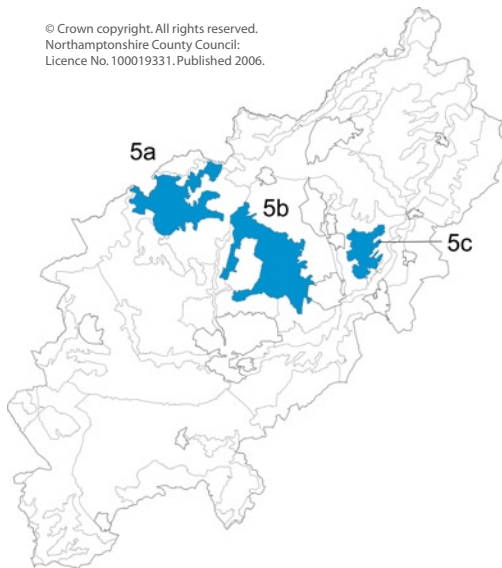
The area is characterised by a predominance of large to medium scale arable fields, with occasional pastoral fields, often in close proximity to farmsteads. A pastoral landscape also predominates around Cranford St Andrew towards Slipton, and to the southwest of Irthlingborough where field sizes are also frequently smaller in size. Typical of the landscape type, woodland cover is limited to small spinneys and copses, frequently of a broadleaved composition, although south of Finedon and between Cranford St Andrew and Tywell, coniferous plantations predominate. The coniferous woodland to the south of Finedon and north of Sidegate Lane is, in this location, associated with the disturbance of the landscape through quarrying. Contributing to tree cover in the landscape are scattered mature hedgerow trees, although overall an open character prevails. The remains of the old mineral railway can also be located to the west of Finedon, providing further evidence of quarrying in the character area.

Crossing the landscape are a number of rights of way, including the Nene Way, with the greatest concentration of footpaths occurring between Barton Seagrave and Cranford St Andrew. Other recreational facilities are limited to a caravan and camping site south of Warkton.

5 CLAY PLATEAU

CHARACTER AREAS

- 5a Naseby Plateau
- 5b Sywell Plateau
- 5c Burton Wold



Clay Plateau

KEY CHARACTERISTICS

- **Boulder Clay deposits overlie almost the entire landscape, obscuring variations in the underlying solid geology and giving a unity of character;**
- **broad, elevated undulating plateau dissected and drained by numerous valleys with convex profile valley sides;**
- **expansive, long distance and panoramic views across open areas of plateau;**
- **sense of exposure on some prominent locations;**
- **limited woodland / tree cover comprising broadleaved woodlands and mature hedgerow trees;**
- **where trees, woodlands and undulating landform combine, they limit or define views and create a more intimate character in places;**
- **numerous water bodies including small reservoirs on the Naseby Plateau;**
- **productive arable farmland within medium and large scale fields predominates on elevated land although sheep and cattle pastures also prevalent, often in smaller fields adjacent to watercourses;**
- **hedgerows are often low and well clipped, although intermittent sections show evidence of decline, and emphasise the undulating character of the landscape;**
- **sparsely settled with small villages and isolated farms prevalent; and**
- **monuments and landscape features associated with the Battle of Naseby are distinctive elements of the local landscape.**

5 CLAY PLATEAU

LOCATION AND INTRODUCTION

Northamptonshire's Clay Plateau landscapes occupy a central position in the county. They form the higher ground to the north of the Nene Valley, and are surrounded by a complex system of valleys. The plateau areas would have at one time been much more extensive, but dissection by rivers and streams has left isolated elevated flat landscapes surrounded on all sides by sloping land and low lying areas. The underlying solid geology is exposed on the slopes below the plateaux, but elsewhere has been cloaked in thick deposits of glacial till. These deposits are almost continuous across the whole of the plateau landscapes and are of sufficient thickness to obscure all traces of the rock strata beneath.

The plateau landscapes are similar in many respects to the Wooded Clay Plateau to the north. However, a greater degree of woodland cover has created a strikingly different landscape character. These elevated, agricultural landscapes are sparsely settled, and principally limited to farmsteads scattered across the undulating topography. They retain a distinctly isolated character, despite being intensively farmed.

The principal clay plateau area lies above the Rolling Ironstone valley slopes bordering the Brampton Brook and the River Ise. It lies on a northwest - southeast orientation, although fingers of the plateau can be seen to 'wrap around' the valley occupied by Pitsford Water. A second, more elevated plateau lies to the northwest and overlooks the Welland Vale. A third area of plateau lies to the north of Irthlingborough. This area of plateau is at a much lower elevation but retains many of the characteristics of the more elevated plateau areas.

PHYSICAL INFLUENCES

Geology and Soils

Beneath a mantle of superficial deposits, the plateaux are underlain by varying rock types. The easternmost area of plateau, the Naseby Plateau, lies on Whitby Mudstones. Its more elevated eastern flank, however, is formed from the ironstone rich Northamptonshire Sands Formation. By contrast, the lower western area is formed from Dyrham Formation Siltstones. The lower, westernmost plateau, Burton Wold, lies on Blisworth Formation Limestone. The central plateau area represents a combination of these principal rock units.

Whilst influencing elevation and the main landform features, variations in the underlying solid geology has little surface expression due to the thick mantle of glacial till or boulder clay that overlies them. This superficial covering was deposited by glacial ice and formed from unlithified 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. These principally border the streams that drain the plateau where, in the past, they have been of sufficient power to wash the drift geology into the river systems below.

The thick mantle of drift deposits is of a sufficient depth to limit the economic viability of quarrying of the underlying strata. The Ironstones on the valley slopes surrounding the plateau have been extensively mined. On the plateau, however, there is a notable absence of active or former quarry sites.

Soils throughout the landscape are characteristically stony and contain a wide range of pebbles and rock fragments, although they vary across the landscape type. The western area of the clay plateau is characterised by a predominance of slowly permeable, seasonally waterlogged, fine loamy over clayey soils and similar soils with only slight seasonal waterlogging. Some calcareous clayey soils are particularly evident on steeper slopes. The eastern section of the Naseby Plateau is characterised, however, by areas of slowly permeable calcareous clayey soils and slowly permeable, seasonally waterlogged clayey soils with similar fine loamy over clayey soils. The remaining areas of clay plateau are dominated by slowly permeable calcareous clayey soils with a large section of the Sywell Plateau characterised by slowly permeable, seasonally waterlogged clayey and fine loamy over clayey soils.

Landform

Glacial deposits are of sufficient thickness to create a smooth, undulating landscape. Whilst wide, flat areas are limited in extent, the landscape shelves over large distances to the steeper valley slopes that surround them, giving wide expansive views and the sense of continuity of the undulating plateau landscape. Steeper landform is principally confined to slopes bordering streams, where the overlying drift deposits have been eroded. The Naseby Plateau is the most elevated of the three character areas, rising to 190m ASL to the east of the village of Naseby. Sywell Plateau, by contrast, has a general elevation of approximately 130m ASL although it rises at one location to 160m ASL. The lowest area of plateau is Burton Wold, rising to just 90m ASL.

5 CLAY PLATEAU

Hydrology

Numerous streams originate on the plateau and form a network of watercourses draining the elevated landscapes in a radial pattern into the surrounding valleys. The influence of these valleys on landscape character is significant, the streams having eroded broad, gentle, convex sloped valleys that are responsible, in part, for creating the undulating landform. At the edges of the plateau, the streams are of sufficient power to have removed all traces of the overlying mantle of drift deposits. Human intervention on the hydrological characteristics of the landscape is evident. Reservoirs, although not extensive, are a feature of the Naseby Plateau and straight drainage channels appear to have been established on Burton Wold. Watercourses and other hydrological features are often difficult to discern in the landscape. Streams tend to be small, and views to them are often obscured by landform, streamside vegetation and hedge lines. Broadleaved woodland almost entirely encircles the reservoirs.

Land Use and Land Cover

Cereal cultivation predominates across the undulating clay plateau with large, monochromatic fields dominating the wide panoramas that are obtained from elevated positions. Although cereal cultivation and horticulture is prevalent, improved pastures become more frequent surrounding villages and on steeper landform bordering streams. Here, field patterns are more intricate and the wider variations in colour, texture and land use pattern contrast with the simpler and more expensive character associated with the plateau tops. Unimproved calcareous grasslands are also evident but are by no means extensive. Particularly significant areas may be identified around the fringes of the reservoirs on the Naseby Plateau and adjacent to larger woodlands to the north of Sywell at the Sywell Aerodrome.

Woodland and Trees

Woodlands are not a dominant feature of the Clay Plateau landscape although some large areas of broadleaved woodland may be identified bordering reservoirs and on steeper sloping land adjacent to some watercourses. Geometric broadleaved coverts are also an important landscape feature. These are often sited in otherwise open areas of agricultural land. They provide both cover and limit long distance views, thus reducing the sense of exposure and openness locally. A number of these are ancient in origin, and may indicate small remnants of once much larger woodlands. Large areas of ancient replanted woodlands are evident at Hardwick Wood and Sywell Wood to the north of the Sywell Aerodrome. These are dominated by coniferous species, however, thus reducing their nature conservation value.

Woodlands are often visible on distant horizons forming a dark backdrop to agricultural landscapes that fill the foreground. They are an important means by which distances can be judged, and serve to emphasise the relative openness of the agricultural landscapes.

Hedged field boundaries often contain ash and oak as mature and semi mature hedgerow trees. The scale of the fields, and therefore distance between hedgerows, ensures that they have only limited impact on reducing the open character of the plateau. Where present they are important in filtering long distance views and therefore reduce the apparent openness and scale of the landscape.

HUMAN INFLUENCES

Buildings and Settlement

Settlement across the Clay Plateau landscapes is limited to a small number of villages and isolated farmsteads. The pattern of villages varies on each of the three plateau character areas. On the Naseby Plateau, small compact and nucleated villages are characteristically sited on elevated areas of plateau, at the intersection of two or more country roads that criss-cross the landscape. By contrast, villages on the Sywell Plateau generally adopt a linear form, and are orientated along the roads that run along the interfluvies between streams draining the uplands. Burton Wold is conspicuous for having no villages or hamlets within it. A number of settlement including Naseby, Great Oxendon and Brixworth retain cob buildings and where present add to local historic character.

The wider landscape beyond the villages is sparsely settled with isolated houses and farmsteads occupying roadside positions or a more secluded location at the end of a short access track off the main route. Where roadside developments are not numerous, and farmhouses do not fall into wide panoramic views, the landscape has an uninhabited or 'vacant' character, particularly where long distance views over agricultural land are possible. However, some areas are affected by views to large scale distribution 'sheds' which are prominent landscape features, particularly where these fringe the plateau landscape as is the case on the western perimeters of Wellingborough.

5 CLAY PLATEAU



Naseby Monument

Heritage Features

Churches, older stone properties, and field patterns within and immediately surrounding villages are indicative of former periods of occupation and activity stretching back to the medieval period. In the wider landscape, however, few visible features indicate this to be a landscape with a long settlement history. This is particularly true of Burton Wold, which contains no villages and only very limited areas of ridge and furrow. It is possible that this clay plateau was marginal land up until the Enclosures and only became settled and farmed at some point in the 18th or 19th Century. By contrast, Naseby is richer in heritage features with widespread ridge and furrow evident. This character area is also notable for the presence of the site of Old Sulby village, preserved as earthworks beneath pasture fields and Naseby Field, the site of a Civil War battle in 1645. On the Sywell Plateau, only limited areas of ridge and furrow survive. This possibly indicates loss resulting from widespread intensive arable farming in the post medieval and modern period.

Boundaries and Field Patterns

Large and medium to large fields predominate across the landscape, particularly on the more elevated, flatter areas of plateau. Where rolling landform and steeper slopes are prevalent, and indeed in the vicinity of villages, small and small to medium sized fields are more common. Discontinuous fields occupy significant portions of the Sywell Plateau, representing one of the largest concentrations in the county. Elsewhere regular fields are more common, particularly on Burton Wold where this is the dominant field pattern.

Field hedges are, on the whole, low and well clipped giving the landscape a well maintained and managed character. Where hedges border large fields, the pattern of fields is hard to discern in the landscape, although they emphasise the undulating landform. 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. In places, metal parkland fencing, often showing signs of decline, is used to mark field boundaries.

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.

Communications and Infrastructure

Roads through the plateau landscape tend to follow elevated interfluvies to avoid river valleys, emphasising the natural grain of the landscape and often influencing the alignments of field boundaries. This relationship between landform grain and road patterns is also reflected in the settlement pattern. On the Sywell Plateau, for example, the southwest grain of the landscape is reinforced by linear villages that lie on the minor roads that cross over the interfluvies and emerge at right angles off the main routes across the plateau. Those that run along its spine are likely to have once been part of a single, main route across the plateau. On the Naseby Plateau a more complex landform is echoed in the arrangement of roads through the landscape. Here again, roads follow more elevated land, avoiding undulations and stream systems. Burton Wold by contrast contains few routes through it, possibly indicating its more recent settlement history.

5 CLAY PLATEAU

Urban areas and associated infrastructure have limited impact across the plateau landscapes. However, the high voltage transmission lines that pass across Sywell Plateau and Burton Wold to large towns along the Nene Valley, such as Northampton and Irthlingborough, form prominent vertical elements on the otherwise open, undulating agricultural landscapes.

Recreation

Despite the close proximity of large urban areas, there are only limited recreational opportunities across the Clay Plateau landscape. Fishing is popular on each of the reservoirs located on the Naseby Plateau. However, perhaps the most important attractions are Naseby Field, the site of the Civil War battle and the Jurassic Way footpath, which runs along the eastern fringes of the Naseby Plateau character area between Welford and Great Oxendon.

AESTHETIC AND PERCEPTUAL QUALITIES

Despite being a productive agricultural landscape, the absence of buildings and indeed people in wide panoramic views, imparts a distinct but subtly remote character to some areas. Where particularly long distance views are possible, a sense of exposure and openness prevails. This is particularly the case where landform and vegetation do not obstruct views. However, areas that are more intimate in scale do exist, particularly along the broad valleys where narrow woodlands and overgrown hedges limit views. Where present, woodlands combine with the undulating topography to give visual containment and a more pronounced sense of intimacy. Generally, colours and textures are simple, as a result of arable farming occupying much of the undulating landscape. Trees, woodlands and pastoral land uses offer some important contrast.

LOCAL DISTINCTIVENESS, LANDSCAPE CONDITION AND LANDSCAPE CHANGE

The Clay Plateau landscape retains a productive rural character. On the whole, it is well maintained and appears intensively managed, however, strength of character diminishes where field boundaries become gappy or overgrown. At a county scale, the landscape is generally unremarkable although wide panoramic views and a sense of remoteness and exposure are important to local distinctiveness and character. Perhaps the most important and distinctive landscapes and landscape features are associated with Naseby Field on the Naseby Plateau. The landscape retains a number of features directly related to the important Civil War battle that took place here. For example, the Sulby Hedges remain very much as they did at the time of the battle. Two monuments, an obelisk and Battlefield monument denote that the site was an important battlefield.

5 CLAY PLATEAU



Naseby Plateau

5a Naseby Plateau

The Naseby Plateau Character Area marks the most northwestern area of Clay Plateau that is largely surrounded by the Undulating Hills and Valleys to the east, south and west, with a small section of the Ironstone Uplands to the southwest and the Broad Unwooded Vale to the north. The Plateau is the most elevated of the three character areas, rising to a height of 190m ASL, to the east of Naseby village. A number of watercourses rise on the broad plateau, including the River Avon. These have formed a series of distinctive valleys with broad, gentle convex slopes on the perimeter of the elevated plateau landscape. Within the valleys stream erosion has resulted in the progressive erosion of the upper limits of glacial till which overlie the area. Watercourses are generally small, and largely screened by vegetation, so their presence is often limited to that of the undulating landform. Also evident on the plateau are Sulby Reservoir and Naseby Reservoir. Largely surrounded by broadleaved woodlands, only glimpsed views of these features are possible. The broad, gently undulating clay plateau allows extensive views from the upper limits, whilst from lower levels the undulating landform and vegetation creates an intimate landscape where a sense of enclosure prevails.

The area is characterised by a predominance of large arable fields emphasising the undulating landform, despite their scale and size. Generally, smaller scale pastoral fields grazed largely by sheep are frequently found around village settlements and on steeper landform adjacent to streams. Large pastoral fields are also evident, however, although frequently subdivided with post and wire fencing. Large areas of ridge and furrow are also found within pastoral fields surrounding village settlements. Examples of calcareous grassland are evident in the character area, in particular around Sulby Reservoir and the villages of Welford, Sibbertoft and Naseby. A combination of boundary features defines fields and emphasises the undulating landform. Hawthorn hedgerows, both overgrown and well clipped, appear to predominate, together with areas of reinforcing post and wire fences. Examples of gappy hedgerows can also be found surrounding arable fields. As is typical of the landscape type, woodland cover is limited to small to moderately sized woodland blocks, generally of a broadleaved composition located in prominent plateau areas as well as nestled within undulations. Scotland Wood on the eastern edge of the area is a notable area of ancient woodland. Enclosing large proportions of both Sulby and Naseby Reservoirs are deciduous woodland blocks, which from a number of areas create a well-wooded horizon. Tree-lined stream courses and scattered hedgerow trees, frequent in places although limited in others, also contribute to the overall tree cover within the character area.

The main settlement pattern on Naseby Plateau comprises small compact and nucleated villages, characteristically sited on more elevated areas of the plateau. Villages include Great Oxendon, Sibbertoft, Welford, Naseby and Haselbech. Whilst the villages of Great Oxendon and Haselbech have developed where two minor roads meet in a linear form, the remaining villages have developed around several roads creating a loop road within the village, and have a compact, nucleated form. Beyond this lies a rural landscape of scattered farmsteads and dwellings, frequently located at the end of straight tracks that run at right angles to the main arterial route. Connecting the dwellings within the area is a network of minor roads criss-crossing the landscape with major roads limited to the A14(T) and A508. The A14(T) is often prominent in views. Other prominent features include Naseby church spire and telecommunication masts adjacent to the A14(T) and to the west of Cold Ashby on Honey Hill.

5 CLAY PLATEAU

There is a wealth of heritage features on Naseby Plateau with ridge and furrow found in many fields surrounding villages. The area is also notable for the presence of the site of Old Sulby and Little Oxendon Villages, both preserved as earthworks beneath pasture fields, and the earthworks around Sulby Abbey. Naseby Field, the site of a Civil War battle (1645) is also an important heritage landmark feature. A number of landscape features remain from the time of the battle and represent a tangible link to the area's past. The famous Sulby Hedges remain very much as they did at the time of the battle when Colonel Okey's dragoons fired upon Prince Rupert's cavalry as they made their initial charge. Lining the hedge, they fired away across the green fields of Sibbertoft beyond. Two monuments are also indicate that the site was an important battlefield. The first is an obelisk erected in 1823 by the then lord of the manor. It lies on the mound where Naseby windmill stood at the time of the battle, more than a mile from the actual battlefield although it is close to where the parliament army probably rendezvoused on the morning of the battle. The Battlefield monument, erected in 1936 by Mr C. H. Reich, was designed by Gotch. It lies where the front rank of the parliamentary infantry stood and not, as the inscription says, the point from which Cromwell led the cavalry.

Although quarry sites are generally absent on the plateau, an old gravel pit is located to the west of Naseby Reservoir. It is now used as a landfill site and creates a prominent landscape feature.



Sywell Plateau to new development at Mawsley

5b Sywell Plateau

Sywell Plateau Character Area is located in the heart of Northamptonshire. It is the most extensive of the Clay Plateaux and almost completely surrounded by the Rolling Ironstone Valley Slopes, with the exception of a small area of Undulating Hills and Valleys located to the northwest, and the urban centre of Wellingborough to the southeast. The plateau rises at one point to a height of 160m ASL, although it generally has an almost consistent elevation of around 130m ASL. The gently undulating landform across the plateau has been formed by a series of small watercourses. Stream action has resulted in the local erosion of the glacial till that otherwise covers the plateau area.

The area is characterised by a predominance of large to medium to large scale arable fields generally regular or sub regular in shape, although their size decreases to the western side of the A43(T) from Walgrave to the southern boundary, where fields of improved grassland become more frequent. Improved pastures are also evident surrounding village settlements and on steeper landform adjacent to streams. The area occupied by Northampton (Sywell) Airport represents a significant area of unimproved calcareous grassland whilst the disused airfield to the north of the area is under arable cultivation. Woodland cover is typically low, comprising small to moderately sized often geometric broadleaved woodlands, although significant areas of coniferous planting can be found around Sywell Airport, including Hardwick Wood, Hardwick Short Wood and Sywell Wood; these all comprise ancient woodland. Other ancient woodlands in the area include Covert, Fraxton Corner, Mawsley Wood, Short Wood, Badsaddle Wood, Withmale Park Wood and Bush Walk, representing areas that are likely to have once formed part of more extensive woodlands. Well treed stream sides and occasional mature and semi-mature oak and ash in hedgerows also contribute to the overall woodland cover. Although views are generally extensive from the plateau areas, in places woodland cover contains views, resulting in a more intimate character.

5 CLAY PLATEAU

Many of the village settlements display a compact, linear form, such as the village of Harrington, and this comprises the principal settlement pattern. There are exceptions, however. Brixworth, the largest settlement in the area is a compact village with an historic core and warm, pale orange ironstone evident in many buildings, and post war expansions to the south. Holcot, on the edge of the character area, is also a compact village that has developed around a number of road junctions. Of particular note in Brixworth is All Saints Church, one of the finest Anglo-Saxon churches in England, and is still in use. Beyond this, scattered farms and dwellings predominate, frequently located adjacent to minor country roads that criss cross the landscape, generally following the main southwest grain of the plateau and located on interflaves between watercourses. The most prominent main road in the area is the A43(T), from which minor roads emerge at right angles. This runs along the spine of the plateau and is intrusive in a number of views, along with high voltage pylons that cross the landscape. Church spires and towers are also prominent within the landscape, including the spire at Walgrave and square tower at Broughton, though this is beyond the area boundary. Water towers can also be seen on the horizon in a number of locations.

There are a limited number of heritage features on the Sywell Plateau. The most notable include limited areas of ridge and furrow; the site of the medieval village of Faxton, and Lamport Hall, a Grade I listed house that was the home of the Isham family from 1560 to 1976.



Burton Plateau to Finedon

5c Burton Wold

Burton Wold Character Area is the smallest and eastern occurrence of the Clay Plateau landscape types. It is also the least elevated of the plateau landscapes averaging a height of 90m ASL. Surrounding the area are the Rolling Ironstone Valley Slopes, and Irthlingborough on its southeastern perimeter.

Land cover is typically large and medium to large scale arable farmland, although improved pastures, generally smaller in scale are present on the southeastern boundary around Irthlingborough. Hawthorn hedgerows defining field boundaries are of varying condition and range from low, gappy and broken in some areas to significantly overgrown in others. Woodland cover is extremely low, with very occasional broadleaved copses and areas of young tree cover. Finedon Poplars is the largest broadleaved woodland within the area. Hedgerow trees are also limited.

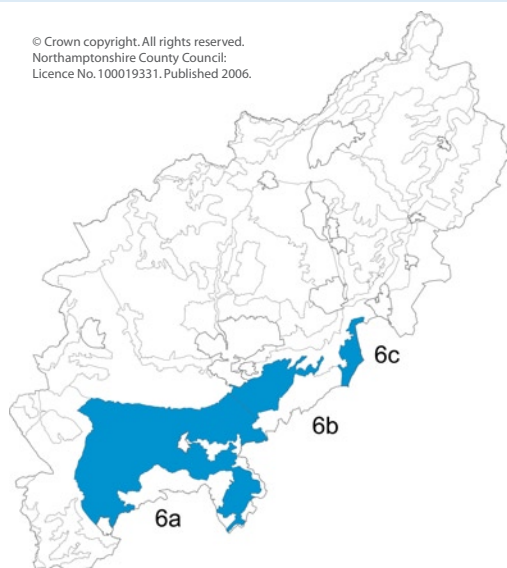
The landscape is extremely sparsely settled with settlement confined to isolated farmsteads and dwellings. Whilst a large number are located at the end of tracks at right angles to the main arterial road, others are situated adjacent to the roadside. A limited number of roads provide access to the settlement and plateau landscape, including a minor country road to the northeast. The A510 passes through the centre of the area from Finedon and the A6(T) in the southeast. Pedestrian access is also relatively limited with only a number of minor rights of way.

Prominent along the western edge of Burton Wold is a line of high voltage pylons intruding into the rural character of the landscape. A water tower in the northeast around Woodford is also a prominent vertical feature on the horizon.

6 UNDULATING CLAYLANDS

CHARACTER AREAS

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



Undulating 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;**

6 UNDULATING CLAYLANDS

- **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.

6 UNDULATING CLAYLANDS

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 pockets 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.

6 UNDULATING CLAYLANDS

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 roadsides, 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.

6 UNDULATING CLAYLANDS

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 interfluvial lines 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 about 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.

6 UNDULATING CLAYLANDS



Plumpton Wood

6a The Tove Catchment

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.

6 UNDULATING CLAYLANDS

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.



View to Piddington

6b Hackleton Claylands

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.

6 UNDULATING CLAYLANDS

The landscape is moderately well settled, the villages of Denton, Brafield-on-the-Green, Hackleton, Piddington and Quinton generally lying on the mid valley slopes above streamlines. The village of Denton, however, descends the valley slopes with dwellings located immediately adjacent to the watercourse. Hackleton, also situated on the lower slopes, remains at a distance from the stream. Beyond the villages are a number of farmsteads and dwellings, frequently accessed via a track from the main road. Whilst many individual dwellings are situated on the mid to upper slopes, they sit in a nestled position within the landscape. Although not within the area, the urban edge of Wootton is prominent to the northwest. A limited number of roads connect the settlements within and beyond the area although large areas remain inaccessible, in particular north of Hackleton. Bordering the area to the southwest is the M1, of which there are glimpsed views. Other prominent landmarks in the character area comprise Piddington's prominent church spire and a water tower south of Brafield-on-the-Green.

Features of historic interest are extremely limited. Scattered areas of ridge and furrow are evident, often in close proximity to settlement, and also close to streams. The remains of a manor house are located in the village of Quinton, and to the northeast of the area, an old avenue forming part of Yardley Chase is a distinctive feature within the landscape.



Bozeat Claylands

6c Bozeat Claylands

The Bozeat Claylands Character Area is the most eastern character area and the smallest area of Undulating Claylands. This rural landscape is characterised by a general predominance of arable land in large-scale fields, interspersed with smaller fields of improved pasture with grazing cattle, frequently surrounding settlements. A number of larger pastoral fields are present, however, generally with post and wire fencing sub-dividing them. Whilst the shape of fields varies considerably across the area, regularly shaped fields are often found surrounding villages with other fields combining both a sub regular and discontinuous form. Woodland cover is extremely low, the broadleaved geometric Bozeat Wood providing the only cover within the area. Mature oak and ash scattered along hedgerows and a number of well treed streams provide the only other tree cover in the character area, creating texture in an otherwise smooth landscape. Woodlands associated with Yardley Chase provide a wooded horizon to the southeast, however, forming a backdrop to the undulating agricultural landscape.

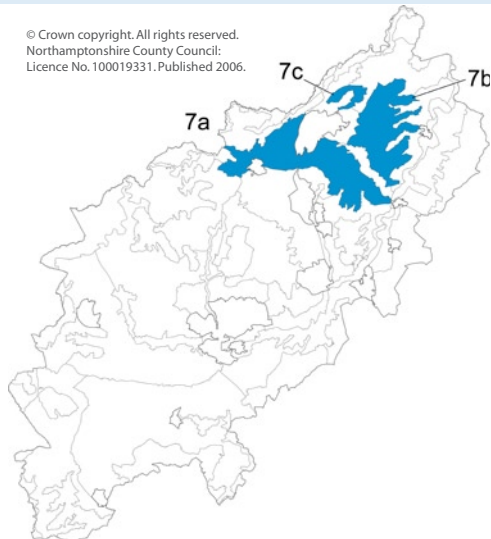
Settlement is extremely limited, with isolated farmsteads and dwellings located along minor roads and at the end of tracks positioned at right angles along the minor road network. In general, these are located on the upper slopes and higher elevated areas of land. On the edge of the character area the settlements of Bozeat, Wollaston and Irchester that lie within the surrounding Undulating Hills and Valleys landscape type, provide village settlements within close proximity. Distant views are possible of the outer edges of Wellingborough. Access to the Bozeat Claylands is limited, with only a few minor roads passing through the landscape. The larger A509, however, provides access along the western edge of the area, linking to the villages within the surrounding landscape type.

Heritage features are confined to scattered areas of ridge and furrow, evident in pastoral fields. Generally, these are located around settlements, most notably on the edge of Bozeat. Landmark features are limited to the water tower northeast of Wollaston, providing a prominent vertical element in the landscape, and church spires located in surrounding villages.

7 WOODED CLAY PLATEAU

CHARACTER AREAS

- 7a Geddington Chase
- 7b Dene Plateau
- 7c Rockingham Plateau



Pipewell Wood

KEY CHARACTERISTICS

- Boulder Clay deposits overlie almost the entire landscape, obscuring variations in the underlying geological framework and giving a unity of character;
- broad, elevated undulating plateau dissected and drained by numerous valleys with convex profile valley sides;
- undulating landform, extensive views and sense of exposure on some prominent locations;
- large woodlands on elevated ground form a backdrop to foreground farmland and provide an intimate human scale landscape;
- woodlands are of high scenic and nature conservation value and an important remnant of the Royal Hunting Forest of Rockingham;
- foreground views are occupied by productive arable fields with low hedges and intermittent hedgerow trees;
- productive arable farmland in medium and large scale fields predominates on elevated land although sheep and cattle pastures also prevalent, often in smaller fields adjacent to watercourses and villages;
- hedgerows are often low and well clipped and emphasise the undulating character of the landscape;
- mature landscaped parks and gardens add to wooded character of the landscape;
- sparsely populated central plateau areas;
- larger settlements and urban areas fringe the plateau landscapes;
- distinctive stone villages in sheltered locations; and
- deeply rural quality despite proximity of large urban areas.

7 WOODED CLAY PLATEAU

LOCATION AND INTRODUCTION

The Wooded Clay Plateau landscape occupies the relatively elevated landscape in the north of the county that stretches from Desborough in the west to Oundle in the east. The landscape covers a significant area and represents the main watershed between the Rivers Nene and Welland. It also includes the valley of Harper's Brook and defines the southern and eastern boundaries of Corby.

The Wooded Clay Plateau borders the distinctive Wooded Limestone Hills and Valleys and is fringed to the east by the Limestone Valley Slopes that extend down to the Nene floodplain. To the south, the Wooded Clay plateau gives way to the Rolling Ironstone Valley Slopes. To the north, the landscape is fringed by the Ironstone *Quarried* Plateau and Undulating Hills and Valleys landscape character types, and a short section of the Farmed Scarp Slopes. These peripheral landscape types are located beyond the limits of the thick mantle of drift deposits that cloaks the Wooded Clay Plateau and displays subtle differences in the patterns of landform, land use, land cover and landscape character.

The Wooded Clay Plateau landscape character type is similar in many respects to the Clay Plateau, representing both elevated areas on which the thick mantle of glacial drift has survived to obscure almost all traces of the underlying solid geology to create a broad, gently undulating plateau. However, the Wooded Clay Plateau landscapes are less elevated and are more extensively wooded, thus having a less pronounced sense of elevation and exposure.

The principal area of the Wooded Clay Plateau landscape comprises a narrow, elevated band of land extending around the north of the Rolling Ironstone Valley Slopes to the south of Corby. It drains mainly into Harper's Brook, which rises to the east of the Triangular Lodge, although peripheral areas drain westwards into the Welland and southwards into the River Ise. The second extensive area of the Wooded Clay Plateau forms the heart of Rockingham Forest. It mainly drains into the River Nene via a number of westward flowing tributaries. A small number of streams also flow southwards into Harper's Brook. The third character area is a small area of wooded plateau that encircles Kirby Hall. Although very limited in extent this landscape is of a sufficiently different geological character to the neighbouring Ironstone Quarried Plateau and Wooded Limestone Hills and Valleys to be identifiable as part of the Wooded Clay Plateau landscape character type.

PHYSICAL INFLUENCES

Geology and Soils

Similar to the Clay Plateau landscape character type, the Wooded Clay Plateau landscapes are underlain by varying rock types from a number of geological periods. Geddington Chase, for example, is underlain principally by Lias Group Whitby Mudstones and Limestones from both the Inferior and Great Oolite groups. Limited areas of Cornbrash Formation are also present in the south of the area and Ironstones occur to the north of Desborough. The elevated western limits of the Rockingham Plateau are notable for being almost entirely formed from Oolitic Limestone, although the eastern flank is formed from softer rocks of the Oxford Clay.

The various rocks comprising the underlying solid geology, whilst influencing elevation and the main landform features, have little surface expression due to the thick mantle of Glacial boulder clay that overlies them. Indeed the underlying geology is only evident at the fringes of the plateau where drift deposits thin out and where rivers and streams have eroded the mantle of glacial till. The boulder clay was deposited by glacial ice and formed from unlithified rocks, sands and clays that have their origins far to the north of the county. Drift deposits across the landscape are of sufficient depth to have precluded mining on the scale evident on the valley slopes to the south, and on the plateau to the east and north of Corby. However, limited former workings are evident on the edge of the Wooded Clay Plateau and along some stream valleys where drift deposits are thin, or have been removed, thus making Ironstone geology more accessible.

A number of the Nene's tributaries have eroded the plateaux to form an undulating landscape. Within the larger tributaries, the mantle of drift deposits has been lost exposing the underlying limestone. These 'fingers' of land that extend into the heart of the eastern and southern side of the Wooded Clay Plateau have been classified within the Limestone Valley Slopes character type to reflect the contrast in the underlying surface geology.

Soils throughout the landscape are characteristically stony and contain a wide range of pebbles and rock fragments. Two main soil types characterise the Wooded Clay Plateau, comprising slowly permeable calcareous clayey soils and slowly permeable, seasonally waterlogged, clayey and fine loamy over clayey soils. Smaller pockets of shallow, well drained, brashy calcareous clayey soils over limestone can be found extending into the landscape type from the surrounding Limestone Valley Slopes.

7 WOODED CLAY PLATEAU

Landform

The Wooded Clay Plateau landscapes are generally smooth and gently undulating. The underlying rocks have been moulded by rivers and streams to form valleys, around which landform becomes steeper and more pronounced. However, where water action has not been an influencing factor or where it is limited to minor streams and brooks, the landscape retains a plateau like appearance. The highest and flattest area of plateau exists to the west of Corby. Here, the plateau has a consistent elevation of 130m ASL. Land shelves away gently to the west where it is forms part of the catchment of Harper's Brook and its tributaries. To the north, land is steeper and forms part of the Undulating Hills and Valleys and Farmed Scarp Slopes landscape types. To the east, the Wooded Clay Plateau is at a lower elevation, rising to approximately 100m ASL. The influence of rivers and streams is less pronounced, with the central plateau area surrounded by gently undulating landform features that merge into the surrounding valley systems.

Hydrology

The majority of the streams flowing through the landscape rise on the Wooded Clay Plateau and eventually drain into tributaries within the Nene catchment. The exception to this pattern is a number of minor watercourses that drain westwards off Geddington Chase to the Welland, and the Willow Brook which rises on the Ironstone Quarried Plateau to the north of Corby. Watercourses are generally gently flowing, and occupy broad, gentle, convex sloped valleys. The succession of shallow valleys has resulted in the landscape type's undulating landform, particularly on the fringes of the plateau. Few are floored by alluvial floodplains, indicating that material is carried further downstream before deposition. The exception to this is Harper's Brook, which has a narrow band of alluvial clay and silt bordering it for much of its course through the plateau. Watercourses tend to be small, and views to them are often obscured by undulating landform, streamside vegetation, and hedge lines. 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.

Land Use and Land Cover

Arable cereal and horticultural land uses characterise much of the Wooded Clay Plateau with relatively intensive agricultural practices in evidence across much of the landscape. Cereal farming tends to be located on the more elevated, flatter interfluves but can also be found along valleys. Horticulture, whilst present on plateau landscapes, is also evident on more undulating areas of landscape. Very little improved pasture is evident, although limited areas occur along steeper slopes bordering watercourses and close to settlements. As a result of the intensive nature of arable and pasture farming there are only limited areas of calcareous and neutral unimproved grasslands. Surviving fragments tend to be located bordering watercourses or in close proximity to areas of woodland, and in particular areas identified as ancient woodland. Small areas also occur on airfields and in parklands. Due to the nature of landform with expansive views over wide tracts of landscape, arable farming and cereal cultivation appears to dominate the landscape. In many respects, therefore, in those areas where woodland is not a dominant factor, or a prominent feature within views, the landscape of large, monochromatic fields interspersed with ploughed land resembles the Clay Plateau landscape to the south.

Woodland and Trees

Woodland is a significant feature of the plateau landscape, often sited on elevated land and therefore emphasising relief. Whilst not forming continuous belts across wide areas of the plateau, significant blocks of woodland coalesce visually with hedgerow trees, smaller copses and coverts and shelterbelts around farmsteads to increase the perception of an extensive woodland cover across the landscape. Many areas of woodland are located on areas of plateau and can often be seen to extend across the landscape and onto sloping land on the fringes of the landscape. Woodlands are well suited to the stiff glacial clays that overlie these landscapes and tree communities comprise two co-dominant species of oak and ash, with a secondary tree layer that includes field maple, crab apple, hazel, spindle, buckthorn and privet. Woodlands are most prominent when sited on elevated land where they form a backdrop in panoramic views and limit long distance views to surrounding landscapes. In many cases woodlands are amorphous or irregular shapes that integrate with and follow landform features and thus integrate well with the landscape. Where present woodlands significantly reduce the open, expansive character of the plateau and give it a more intimate and human scale. Many woodlands are ancient and principally comprise broadleaved species although significant areas of mixed woodland can also be identified. Woodlands containing the wild service tree can often be regarded as proof of a woodland's ancient origins. These woodlands form the heart of Rockingham Forest and represent remnants of the medieval hunting Forest that originated in the Norman period under William I. Many are designated as SSSI or County Wildlife Sites on account of their high nature conservation value.

Hedged field boundaries often contain intermittent ash and oak as mature and semi-mature hedgerow trees. Where present they are important in filtering long distance views and therefore help reduce the openness and scale of the landscape where woodlands are not significant. They also act as wildlife corridors linking areas of woodland with other habitats.

7 WOODED CLAY PLATEAU

HUMAN INFLUENCES



Queen Eleanor's Cross in the heart of Geddington

Buildings and Settlement

Despite the close proximity of large urban centres, including Corby, Oundle and Desborough, the expansive Wooded Clay Plateau landscapes are thinly settled. This is linked to the area's history as a Royal Hunting Forest. Many settlements were established during the Saxon period around the edge of the area that was controlled as royal or former royal manors controlling the central woodlands. The pattern of principal settlements lying around the edge of the Forest has persisted to the present day and the central area remains sparsely settled. The largest settlements of Geddington, Stanion and Braybrooke tend to be sited at the fringes of the plateau occupying sheltered locations adjacent to areas of sloping landform and along valleys where boulder clay has been eroded. Here, more easily cultivated land is exposed and typically the landscape comprises small pasture fields and more robust hedgerows. Within the plateau, however, villages are small, linear clusters of houses. Some, including Denethorpe, Oakley, Upper Benefield and Lower Benefield, are compact linear settlements, whereas settlements such as Pipewell are dispersed with some properties some distance from the church at the centre of the village. Building stone varies across the landscape indicating the local distribution of rock types. Ironstone is more prevalent in villages in the west. Limestone is more prevalent along the eastern fringes of the landscape.

Beyond the villages and urban areas that fringe the Wooded Clay Plateau the landscape is well settled. Numerous farms are dotted throughout the landscape, the position of which varies. Some are located along roadsides, whilst others are located at the end of tracks at right angles to the main routes through the landscape. Many farms contain the element 'Lodge' in their names, indicating that they once formed part of estate landscapes.

7 WOODED CLAY PLATEAU



Lyveden New Bield built by Thomas Tresham

Heritage Features

The Wooded Clay Plateau forms the heart of what remains of Rockingham Forest. This was once part of a continuous area of woodland from Stamford to Oxford. By the Middle Ages, however, sufficient areas had been cleared for Rockingham to have a separate identity. The Forest was first defined by William I and its western and eastern boundaries marked by the Nene and Welland respectively. The historical definition of a Forest is 'an area of land reserved for hunting by the King' and, as such, the landscape comprised a matrix of heavily wooded land, areas of coppice, regenerating woodland, villages, open glades and farmed areas.

There would have been individual landowners within the Forest area, but under 'forest law', only the King was allowed to hunt for deer or boar. Landowners and peasants were permitted to collect fallen and dead wood, but could not cut down trees. For a small fee, villagers were allowed to graze their animals in certain areas. Anyone caught committing offences 'against Vert and Venison of the Forest' were liable to punishment. Penalties administered under forest law could be severe. In 1637, for example, Charles I held a 'Swanimote Court' to check on abuses of the law. Local landowners were charged with enclosing and assarting woodland and charged a total of £67,000.

Forest law was administered at a local level by 'wardens', also known as 'stewards', 'constables' or 'bailiffs'. These would have been high-ranking people residing at Rockingham Castle, located to the north of the Wooded Clay Plateau on the Farmed Scarp Slopes. Reporting to the wardens were 'gentlemen keepers', who would have been landowners of some importance and 'yeoman keepers' (minor landowners). The keepers patrolled the Forest and collected fees from peasants. They lived in lodges or farms provided by the warden. Henry III relaxed the rules slightly, allowing major landowners to obtain, at a considerable price, a licence to fence off a piece of their land and receive a number of deer from the King for their own private hunting. A 'deer park' was created in Rockingham around 1256, and enlarged in 1485.

Rockingham Forest dwindled under the reigns of Charles I and Charles II, with land being sold and leased back to the lords of the manors. In 1832, an Act of Parliament disbanded Rockingham Forest. Large tracts of woodland still survive and evoke something of the area's past. Beyond the areas of Ancient Woodland, however, the landscape contains few visual clues to its history. However, place names are a tangible link to the past. For example, the name Purlieu (Carlton Purlieu) is derived from the meaning for a stretch of land on the edge of a Royal forest, cultivated but desolate, with fields and sparse trees.

Key heritage features across the landscape include Lyveden New Bield, a surviving Elizabethan garden lodge within its mostly undisturbed Elizabethan setting. The lodge was built to represent Sir Thomas Tresham's Catholic faith, as was his other creation the Triangular Lodge, which is located fringing the plateau on the Rolling Ironstone Valley Slopes southeast of Desborough. It is surrounded with gardens containing Elizabethan earthworks. A number of Historic parklands displaying later styles are also evident across the landscape. The most notable are the Grade I gardens at Drayton which incorporate a medieval deer park although the designed portion of the gardens dates to the 17th Century. Small portions of two other significant gardens stretch onto the plateau. Boughton House Gardens extend northwards onto the plateau via an avenue of trees which links the heart of the gardens to areas of woodland (Geddington Chase and Old Head Wood) in which radial rides survive as part of the 18th Century garden design. Part of Rockingham Park, also once a deer park, extends onto the plateau to the west of Corby.

7 WOODED CLAY PLATEAU

Similar to Lyveden, earthworks at Pipewell indicate the presence of Pipewell Abbey. The site never achieved any considerable size or importance and in 1365 there were less than twenty monks and only fourteen at the time of suppression. Demolition took place soon after 1720 leaving no standing masonry. Most of the precinct survives as earthworks with the church and cloister buildings at the centre. To the west of the precinct, there is a massive mill pond and dam, together with a series of medieval quarries, that have been worked into the 20th Century.

Similar to the Clay Plateau landscapes, only limited areas of ridge and furrow survive. This potentially has resulted from widespread ploughing and cultivation of the landscape following the enclosures and subsequent loss of landscape features and field patterns. However, it may also indicate sparse settlement and farming throughout the medieval period due to its location within the Royal Hunting Forest.

Airfields dating to World War II are also conspicuous on the plateau. These occupy open flat areas between woodlands. Perhaps the most notable is Grafton Underwood Airfield, which was home to the USAAF. A granite memorial now stands at the end of the former main runway.



View to Biggin Hall woods

Boundaries and Field Patterns

Large fields predominate across the Wooded Clay Plateau, particularly on the more elevated flatter areas. These fields are often used for arable production and wide tracts of cereals or ploughed land can often fill wide panoramas from elevated viewpoints. Small and small to medium sized fields are more common where steeper slopes are present bordering the valleys and on the edges of plateau areas. Field shapes on the plateau are generally regular and sub regular although limited areas of discontinuous fields are evident, particularly on the outskirts of Corby, and in the vicinity of the landscape's larger ancient woodlands.

Field hedges are often low and well clipped giving the landscape a well maintained and managed character. These often contain semi-mature hedgerow trees. Elsewhere, hedgerows are rambling and overgrown and often contain mature and sometimes stag headed oaks. These hedges add to the wooded character of the landscape and filter views over wide areas contributing to the landscape's intimate, human scale.

Communications and Infrastructure

There is no strong pattern of roads through the landscape. A network of minor roads weaves through the landscape linking small villages and isolated farms together. Few routes take a direct course and the majority of country roads wind through the areas of farmland and woodland. They tend to occupy the more elevated interfluvial areas although this is not always the case and many roads also travel over the undulating landscape. Many areas are serviced by unsurfaced tracks that form an important component of the road network, providing access to isolated farmsteads and otherwise remote areas of farmland. Few roads pass through the woodlands, tending instead to travel between neighbouring woodlands or around one edge. The principal routes, particularly the A427, A6003 and A43 leading into Corby, have been widened and improved. Most roads, however, retain their rural characteristics and are flanked by grass verges and hedgerows.

7 WOODED CLAY PLATEAU

Corby and its associated connecting infrastructure has had limited impact across the plateau landscapes. However, high voltage transmission lines, which pass across Geddington Chase, form prominent vertical elements on the otherwise open, undulating agricultural landscapes.

Recreation

The landscape is characterised by a patchwork of ancient woodlands and open agricultural land, with historic stone built forest villages providing a significant recreational resource and popular tourist destination. The forest offers visitor routes for walking, cycling and riding. The forest is also rich in heritage and nature conservation interest. Of particular note are the populations of Red Kite, which have become re-established in the area. Once a familiar sight across much of England, the Red Kite was wiped out by the end of the 1800s, after enduring centuries of persecution. English Nature, together with partner organisations including Forest Enterprise and the RSPB, has worked hard to re-introduce the Red Kite. Now, after more than ten years of releasing young Red Kites, the breeding populations are well established in Rockingham Forest and also within the Chilterns. Significant areas of woodland are owned and administered by the Forestry Commission and are managed to provide access and recreation.

AESTHETIC AND PERCEPTUAL QUALITIES

Despite the extensive areas of productive arable farmland interspersed with numerous farms and small villages, the landscape still retains a remote character within many areas. Where particularly long distance views are possible, a sense of exposure and openness prevails. However, where woodland and tree cover is more extensive the apparent scale of the landscape is reduced with the vegetation cover combining to impart a more intimate character and human scale. Colours and textures are generally simple, as a result of the arable farming occupying much of the undulating landscape. Trees and woodlands are important features, however, adding textural elements and colours that change with the seasons. Associations with the Royal Hunting Forest are strong and add to the landscape's appeal. This is strengthened by the nature conservation value of many woodlands across the landscape.

LOCAL DISTINCTIVENESS, LANDSCAPE CONDITION AND LANDSCAPE CHANGE

The Wooded Clay Plateau landscape retains a productive rural character, but it is also of scenic and historic interest. Ancient woodlands, historic forest villages, and productive farmland combine to make this a distinctive landscape. On the whole, it is well maintained and appears intensively managed. Although the landscape generally retains a strong character, this diminishes in areas of open farmland where woodlands and trees do not reduce the scale of the landscape, and where hedgerows are in decline and being replaced with post and wire fencing.

Many of the remaining areas of coppice are falling into neglect. The practice of coppicing has largely ceased due to the rising cost and lack of markets. There has been no replacement with other forms of woodland management, and deer damage is an increasing problem. The 'Ancient Woodland Project' has been recently established, with the purpose of restoring semi-natural broadleaved woodland and traditional management practices. Other woodlands have been replanted with conifers, which reduces their visual appeal and nature conservation value. Beyond the woodlands, areas of unimproved grassland have been lost through improvement and cultivation. Hedgerow removal is also a significant factor. These are important as they contribute to local character through the field patterns they create. They also provide green links between areas of woodland.

7 WOODED CLAY PLATEAU



Woodland Backdrop

7a Geddington Chase

Geddington Chase Character Area forms the westernmost section of the Wooded Clay Plateau and extends from the eastern edge of Market Harborough, along the southern boundary of Corby, and extends in the southeast to Islip, adjacent to the Nene Broad River Valley Floodplain. The largely flat plateau area is drained by a number of streams and tributaries creating localised minor undulations in the landscape, the most notable of which is Harper's Brook, which flows through the centre of the area.

There is a general predominance of large and medium to large arable fields regular and sub regular in shape, although smaller improved and semi improved pastures often with grazing cattle is evident. These are most prominent along watercourses, the railway line, and in close proximity to settlements, in particular Braybrooke, Great Oakley and Little Oakley and southwest of Brigstock. Pastoral fields also occur around Drayton Park, a Grade I listed park and garden incorporating approximately 100 hectares of landscaped parkland with a medieval park dating from 1328, early formal gardens and gardens dating from the 17th Century. Areas of neutral grassland are also evident in the character area north of Eleven Acre Spinney and northwest of Newton. Woodland cover on the plateau is extensive, with significant areas such as Geddington Chase having once formed part of the old Rockingham Forest, a popular hunting area for royalty during the middle ages and now forming part of Boughton Park, a Grade I listed park and garden. The majority of large woodland blocks are ancient woodland. They frequently have a broadleaved composition with small pockets of coniferous plantation and areas of mixed woodland. Sections of Brampton Wood provide the most significant area of coniferous planting within the character area. Whilst a number of woodlands incorporate public rights of way, Grafton Park Wood, used for shooting and game rearing, includes facilities such as picnic areas, waymarked walks and car parks. Located on upper slopes and tops of undulations, many woodlands provide distinctive horizon features, framing views and creating an intimate and enclosed character, despite the elevated nature of the plateau.

The landscape is moderately well settled, the villages of Braybrooke, Pipewell, Little Oakley, Great Oakley, Stanion, Geddington and Islip occupying, in general, the lower valley slopes above watercourses. Whilst villages such as Pipewell and Little Oakley have developed in a linear form, others such as Braybrooke have developed around the junction of several roads. Stanion and Geddington also have evidence of post-war development on their outer edges. Geddington and Little Oakley also form two of the estate villages to Boughton House and Park situated in the Kettering and Wellingborough Rolling Ironstone Valley Slopes to the south. Geddington, although famous for the Eleanor Cross, which lies within the surrounding landscape type, also provided a major settlement in the heart of Rockingham Forest and has been populated since prehistory and mentioned in the Domesday Book. In medieval times it gained importance through housing a medieval royal hunting lodge, and although there are no remains of this today, nearby cottages around the church of Mary Magdalene are thought to date from a similar period. Such villages within the character area were also dependent on timber and other resources associated with woodland that formed part of the Royal Forest for their survival. Beyond the village settlement are scattered farmsteads and individual dwellings. The urban area of Corby that extends into the plateau is prominent in a number of views, and in places results in a transitional rural edge. Particularly visible and intrusive in the landscape are large industrial units and chimneys.

7 WOODED CLAY PLATEAU

Due to the elevated nature of the Wooded Clay Plateau, a number of disused airfields are situated within the area. The most notable is at Grafton Underwood, which was built in 1941 covering 500 acres, north of the village after which the Airfield was named. It provided a base for the US 8th Army Air Force and from early 1942 until 1945 units were posted here. Adjacent to the airfield is a granite memorial, which stands on the site of the former runway, now under agricultural use. A second airfield located to the west of Pipewell is again under arable cultivation.

Landmarks on Geddington Chase are varied. Geddington church spire is a prominent vertical feature on the horizon with the original church dating back to Saxon times, reinforcing the long settlement pattern of the area. Islip church provides an additional feature in the southeast of the area with Braybrooke church also being prominent. A number of high voltage pylon lines cross the plateau area and are particularly prominent to the east of Corby. Water towers are also visible both within and beyond the area.



North of Deene Park

7b Deene Plateau

Deene Plateau Character Area, the smallest of the character areas, is located to the northeast of Corby and is surrounded to the west by the Ironstone Quarried Plateau and to the east by the Wooded Limestone Hills and Valleys. Characterising the plateau is a predominance of arable land in large and medium to large fields although limited fields of often smaller improved pasture are located north of Deene, south of Gretton, and on steeper slopes northeast of Mavis Wood. An area of calcareous grassland is located to the northeast of Gretton, and the southern tip of the character area is dominated by bare ground. This lies adjacent to a disused quarry in the surrounding Ironstone Quarried Plateau landscape type. Broadleaved woodland predominates, with blocks to the north of the area having an ancient origin. There are limited coniferous plantations in the area, and where they do occur they have a linear form.

Settlement is extremely limited, confined to two isolated farms, one situated adjacent to the roadside, the other accessed via a minor track and the northern edge of Deene Park. Access to the plateau is also limited. Although a number of rights of way allow access to the western half of the area, there are no roads passing through the landscape. The eastern section of the character area is slightly more accessible, however, with three minor roads passing through the landscape.

7 WOODED CLAY PLATEAU



View to Biggin Hall woods

7c Rockingham Plateau

Rockingham Plateau Character Area is the easternmost of the character areas and extends from King's Cliffe, in the north, to Aldwinckle in the south. Surrounding the character area is the Ironstone Quarried Plateau to the west, the Wooded Limestone Hills and Valleys to the north, and the Limestone Valley Slopes to the east and south.

Land cover is typically arable farmland in generally large fields, with occasional medium to large fields. Improved pastures with grazing sheep and cattle and limited areas of calcareous grassland occur in close proximity to farmsteads, settlements and along watercourses. A predominance of low, well clipped hawthorn hedgerows enclose the fields with hedgerow trees of oak and ash. As is typical of the landscape type, woodland cover is extensive. Although broadleaved woodlands dominate the area, within the largest woodland blocks such as those north of Southwick, north of Brigstock and northeast of Sudborough, sections of coniferous and mixed planting are evident along with areas of young tree planting and felled woodland. A significant proportion of the woodlands are also ancient, having once formed part of the more extensive Rockingham Forest. Fermyn Woods, for example, are ancient woodlands containing semi-natural oak and ash woods, along with conifer plantations. The woods were managed as coppices for many centuries, a practice that is due to begin again as the woods are converted to semi-natural broadleaf woodland under the 'Ancient Woodland Project'. A number of waymarked trails are located in the woodland, connecting the area with Brigstock Country Park in the adjacent landscape type. The Fermyn Forest Walk takes visitors up into the woods, which have also been mapped for orienteering. Woodland to the north of Brigstock and northeast of Sudborough is managed by the Forestry Commission and permits public access. Located on the upper slopes and top of undulations, the woodland contains views within the area, resulting in an intimate and enclosed character on the plateau landscape. Despite this, from some areas wide panoramas are still possible over the landscape.

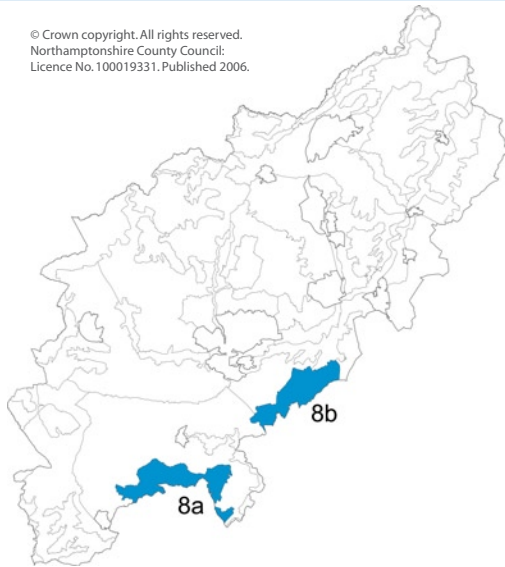
Settlement on Rockingham Plateau is relatively sparse, the compact linear villages of Upper Benefield, Lower Benefield and Deenethorpe providing the main settlement. Beyond this, the landscape is reasonably well settled with scattered farmsteads and dwellings located adjacent to minor roads and at the end of small trackways. Notable houses include Fermyn Woods Hall and Lyveden New Bield. The latter, set within 60 acres of woodland, wildflower meadows and open grassland, is an Elizabethan garden lodge built to represent St Thomas Thresham's Catholic faith, held during a Protestant's reign. Although now abandoned and incomplete, the lodge and surrounding grounds provide an important landscape feature. Visible to the west of the plateau is the urban edge of Corby, with a number of prominent industrial units and tall chimneys.

Landmarks on the plateau are limited. Lower Benefield church spire and a water tower north of Glapthorn, however, provide prominent features on the horizon. Recreational opportunities include numerous public rights of way crossing the plateau landscape and Fermyn Woods Hall gliding club.

8 LOW WOODED CLAY RIDGE

CHARACTER AREAS

- 8a Whittlewood Plateau
- 8b Salcey Forest and Yardley Chase



Whittlewood Plateau

KEY CHARACTERISTICS

- **Boulder Clay deposits overlie almost the entire landscape, obscuring variations in the underlying solid geology;**
- **broad, elevated plateau with shallow soils, elevated above adjacent lowland landscapes;**
- **extensive areas of ancient woodland form a backdrop to a foreground of farmland;**
- **strong historic character derived from the landscape's ancient woodlands and Forest villages;**
- **mixed land use of pasture and arable farmland extending between wooded areas;**
- **medium sized fields defined by full hedges containing numerous hedgerow trees; and**
- **low density of settlement and sparse road patterns.**

8 LOW WOODED CLAY RIDGE

LOCATION AND INTRODUCTION

The Low Wooded Clay Ridge landscapes define the southern boundary of the county where they rise gently from the lowlands of neighbouring Buckinghamshire to the south and east. Despite reaching only a maximum of 150m ASL, this character type is physically distinct from the adjacent low lying landscapes. To the north the landscape becomes more undulating before falling gently to the floodplain of the River Nene. The landscape character type is limited in extent within the county but forms part of the low watershed between the Nene to the north and the Great Ouse to the south. The Tove drains the Undulating Claylands to the north of the ridge and breaches the ridge at Grafton Regis before continuing southwards into the Great Ouse.

The area has a strong agricultural character with a mix of arable and pastoral farming evident. Pastoral farming is predominant in the west, leading to more open, arable landscapes as the land dips to the east. However, the thin and variable soils have historically been a constraint to agriculture to the extent that the area has been heavily wooded since at least the 13th Century. Farmland and woodland form simple harmonious combinations, with wooded areas often forming a dark backdrop to stretches of pasture or arable farmland.

Woodlands are an integral part of the landscape and add much to the area's visual appeal and character. Most are predominantly mixed oak woods and contain some trees planted in the early 18th Century. More recent conifer plantations form dense, dark blocks of woodland that can often be seen forming impenetrable backdrops to foreground landscapes, and offer a strong contrast to surrounding deciduous woodlands, particularly in Autumn and Winter.

Despite relatively low elevations, long views over the surrounding lowland landscapes are possible. This makes the landscape feel open and expansive. These views are often blocked by intervening woodlands, however, which are frequent along the ridges. The elevation of the landscape has made it suitable for telecommunications masts and historically for airfields, one of which has been converted to its current use as the Silverstone Race Circuit. This has a significant influence on the local landscape.

Roads crossing the ridges are infrequent. Many are bounded by wide, herb rich verges bordered by hedges. These, and the hedgerows defining fields, are generally substantial and species rich. Many contain mature hedgerow oak and ash, although young saplings offer potential new hedgerow trees.

PHYSICAL INFLUENCES

Geology and Soils

Beneath an extensive mantle of Boulder Clay deposits, the Low Wooded Clay Ridges are underlain principally by the Blisworth Limestone Formation of the Great Oolite Group. These tend to form the most elevated areas. Extensive areas of Blisworth Clay Formation mudstones are also evident, however, particularly at lower elevations where the overlying limestone cap has been eroded. To the east, the low-lying areas of the Salcey Forest and Yardley Chase ridge are underlain by a succession of Cornbrash, and Kellaways and Oxford Clay Formation mudstones. These rock formations, all of which date to the Jurassic, run in a southwest to northeast alignment.

Subsequent glacial activity has smoothed over this low outcrop and deposited extensive drifts of boulder clay and isolated patches of glacio-fluvial sand and gravel. These latter deposits are particularly extensive on the Whittlewood Plateau in the vicinity of Syresham and Whittlebury.

Soils on the ridges are patchy and varied, ranging from free draining stony till to less permeable clays. In isolated areas, where drift deposits have been washed away by streams draining the ridge, small limestone quarries were established to supply stone for local buildings. The soils mainly comprise slowly permeable, seasonally waterlogged, clayey soils, and fine loamy over clayey soils. Some slowly permeable calcareous clayey soils are evident, particularly on steeper slopes. Located along the northern edge of Salcey Forest and Yardley Chase character area is a limited area of slowly permeable calcareous clayey soil.

Landform

The Low Wooded Clay Ridge landscapes are generally smooth, and plateau like in places and gently undulating around the fringes. These landscapes represent a low but significant watershed between two major river catchments and thus appear as a relatively prominent landform feature from adjacent lowlands, despite only rising to a maximum elevation of 150m ASL. The Salcey Forest and Yardley Chase Character Area is lower and reaches a maximum elevation of just 130m ASL to the east of Hartwell, with an average altitude of between 90 and 100m ASL.

Despite their low elevation, these landscapes appear as a relatively prominent ridge and backdrop to lowland landscapes in the foreground. Elevated landform is emphasised by large, dark masses of deciduous woodland and ensures that when viewed from the neighbouring vales, the landscape is read as a prominent wooded ridge line, and backdrop to foreground agricultural land.

The ridges are dissected by numerous streams. These create undulating landform along the northern fringes of the ridge, with plateau areas forming the interfluves between individual river catchments.

8 LOW WOODED CLAY RIDGE

Hydrology

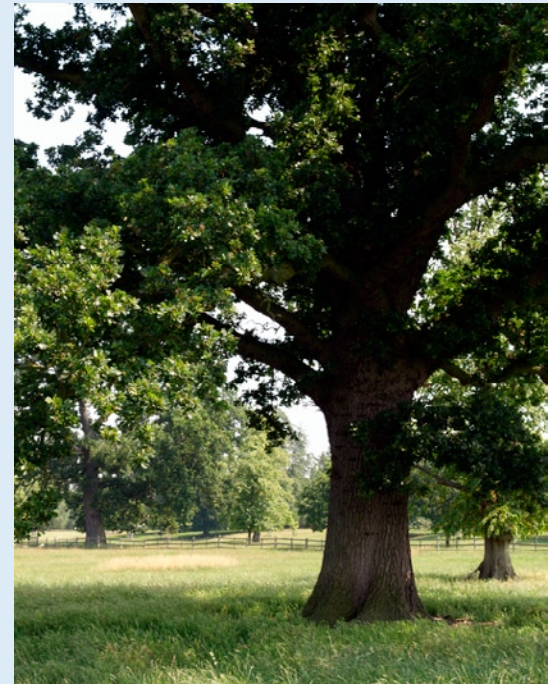
The Wooded Clay Ridges form a major watershed between the catchment areas of the Rivers Nene and Great Ouse, with streams originating on the ridge flowing northwards to the Nene and southwards to the Great Ouse. The Tove drains the lowlands to the north of the ridges, its course changing to southeasterly at Towcester before cutting through the ridge at Grafton Regis. It then continues southeastwards and then southwestwards beyond the county to its confluence with the River Great Ouse.

Gently flowing watercourses occupy broad, convex sloped valleys and create a gently undulating landform across the ridges. Where streams have cut through the mantle of boulder clay that cloaks the underlying solid geology, narrow bands of alluvium extend along the valley bottoms. These areas predominantly support improved pastures although some areas of unimproved grassland are also evident.

Land Use and Land Cover

Permanent pasture, leys and arable land supporting cereals are all in evidence across the landscape, as well as areas of unimproved calcareous grasslands, which are often found in close association with areas of improved pasture, areas of woodland and bordering streams.

Pasture is dominant on the more elevated western ridge, and in particular to the east of Whittlebury. Arable cropping is more dominant on the lower, less undulating land to the east, particularly along the Salcey Forest and Yardley Chase landscape character area where pasture is extremely limited. Horse paddocks and associated 'horsiculture' features are evident on the fringes of settlements across the ridges.



Oak trees in the parkland at Castle Ashby

Woodland and Trees

The woodland cover across the landscape type is an important element in defining the character of these landscapes. The high woodland cover (up to 15% on Yardley Chase) marks the line of the ridge and makes it a clearly recognisable area of landscape when viewed from the surrounding lowlands. Woodlands tend to be large, and many are managed by the Forestry Commission. The majority of the woodlands comprise deciduous species, notably oak and ash standards with coppiced oak. Understorey plants include birch, hazel, alder and willow. In contrast to the woodlands to the north, a secondary tree layer is seldom present within the woodlands on the glacial clays of the ridges. The ground flora is similar, except that many of the lime tolerant plants (calcicoles) are not present. Calcifuge plants are also to be found, such as foxgloves, golden rod, orpine and ling. In addition to the ancient oak woodland, more recent coniferous plantations are also present.

Woodlands are generally amorphous and irregular in shape, and tend to follow and emphasise landform features. The intricate shapes and patterns they create with surrounding fields indicates that woodlands were once more extensive and areas have been cleared for agriculture at some time in the past, rather than imposed as geometric blocks onto the landscape framework. As a result, the woodland forms an intricate relationship with the landscape resulting in a 'semi-natural' character.

8 LOW WOODED CLAY RIDGE

Surviving woodlands are an important indicator of the landscape's past and many of the areas of ancient woodlands have remained forested since the 13th Century when many areas of forest were appropriated along the ridge as Royal Forest. The woods of Whittlewood and Salcey were passed to the Dukes of Grafton. Whittlewood comprised 6,000 acres of which 4,500 acres were woodland in 1608. Salcey Forest, which includes Yardley Chase, covered 1,200 acres almost all of which was managed as coppice. It has the largest number of ancient (veteran) oak trees anywhere in Northamptonshire. Notable oaks that have survived include The Salcey Oak and Milking Oak, both of which are situated on the Forest lawn, and The Piddington Oak and The Church Path Oak, which are to be seen in the Forest. The Church Path Oak was situated on one side of the church path through the forest. A plaque attached to this tree read: "Salcey Forest Church Path Oak William Henry Sixth Duke of Grafton was accustomed to rest under this tree on his way to and from Piddington Church".

Hedged field boundaries are often rambling, species rich and substantial, and frequently contain elm suckers. They also contain hedgerow trees, mostly comprising oak and ash and which are often mature and stag headed. Where present hedges add to the landscape's wooded character, often coalescing in views up to the ridge to create a well wooded character.

HUMAN INFLUENCES

Buildings and Settlement

During the medieval period, when many of the county's villages were becoming established or consolidated, the areas around Salcey and Whittlewood were some of the most sparsely settled landscapes in the county. The ridges continue to have low populations and the settlements tend to be small and located at the edges of ridges.

Many of the villages on the ridge were Forest Villages surrounded by open fields. Until the time of the enclosures village residents would have had rights over the Forest lands. Hartwell, for example, was a village of the Forest of Salcey. As with much of the county, village populations declined as a result of the black death and the rural depopulation that resulted from the enclosure period, although this latter event was of probably less impact here than elsewhere in the county.

The largest villages are Silverstone, Whittlebury, and Yardley Hastings and despite significant expansion in recent times, settlements often retain a rural character. Building materials vary with red brick and soft local Oolitic limestone, ranging from warm greys to subdued ochres, frequently used with either blue/grey slate or red pantile roofing. Mixtures of materials are also in evidence, as at Whittlebury where an eclectic mix of buildings styles are present, including red brick houses with limestone frontages.

The landscape is also significant for containing few farms. These are widely dispersed through the landscape, indicating that perhaps woodland cover was once much more extensive and that the few farms that are present have retained land following clearance of woodlands.

8 LOW WOODED CLAY RIDGE



Castle Ashby Great House from the avenue

Heritage Features

Despite evidence of some pre Roman settlement, and the area's obvious attraction to early settlers as a result of its elevation above the wetter lowland landscapes, there is limited evidence of early occupation and activity on the ridges.

During the Saxon period, woodland was cleared and settlements established. The main influence on the landscape, that is still evident today, was the appropriation of extensive areas of woodland by the crown during the 13th Century. The woods of Whittlewood and Salcey provided a source of fuel and building materials as well as hunting grounds for the nobility. Its appropriation ensured that the landscape avoided the more intensive clearance of woodland, drainage and settlement that occurred in the adjacent lowlands.

The structure of widespread forest, interspersed with 'lawns' for pasture and nucleated Forest villages surrounded by open fields, continued until the early 17th Century. During the time of the enclosures, however, woodlands were cleared at an accelerated rate, particularly during the Parliamentary Enclosures in the late 18th and 19th Centuries.

Historic parks have a limited influence on the landscape. Only one registered park, Horton Hall, is located within this landscape type. The southern extent of the avenues, emanating from Castle Ashby Park, also encroach a short distance onto Yardley Chase.

Boundaries and Field Patterns

Sub regular field patterns are most common on the ridge, although regular fields are also present indicating areas where Parliamentary Enclosure was prevalent. Field size varies with small, medium to large, and large fields forming an intricate pattern across the ridge. Large, discontinuous fields are also evident and are particularly noticeable in the east of the landscape where arable farming predominates.

Field hedges are tall and rambling adding to the landscape's wooded character. These often contain mature hedgerow trees, which filter views and contribute to the landscape's intimate, human scale.

Communications and Infrastructure

Routes tend to cut across the ridge rather than follow it. Most share a northwest to southeast orientation as illustrated in the course of the A5 (Watling Street) which runs for a short distance across the ridge to the north of Potterspury. A notable exception is the A43 Silverstone bypass, which runs along the ridge between Whitfield and Silverstone. The general orientation of roads is mirrored in the alignment of a disused railway and high voltage transmission lines that run through Yardley Chase.

Recreation

Originally used as a wartime airfield, the Silverstone Circuit was converted to racing in 1948 when a track using a combination of runways and perimeter road was created. Two Grand Prix were held on that configuration before the runway was abandoned. It is now the country's only Grand Prix circuit, and attracts huge volumes of visitors on major race days. Small industrial units and miscellaneous industries in the vicinity of the track can lead to an untidy and cluttered landscape. Beyond, and containing this prime visitor attraction, are extensive woodlands. The Forestry Commission manages some of the largest woodlands in this landscape including Buttockspire Wood, Hazelborough Wood and The Royal Forest of Salcey. This latter site is a magnificent ancient woodland offering opportunities to view a range of wildlife. The forest is a remnant of the medieval Royal Hunting Forest and the many miles of ancient woodbanks, building remains, and ancient trees that are still present, are reminders of the past. The 'druids' or veteran oaks in Salcey are a rare and important wildlife habitat and some of the old oaks are believed to be over 500 years old.

8 LOW WOODED CLAY RIDGE

AESTHETIC AND PERCEPTUAL QUALITIES

Despite wide views being possible from elevated exposed areas, the Low Wooded Clay Ridges retain an intimate character and human scale. Productive arable farmland and pastures cloak the landscape. These lie between significant areas of ancient woodland, which are amorphous in shape and well integrated with their surroundings. This leads to an intricate patchwork landscape of contrasting colours and textures. Colours change with the seasons and the autumn colours of many woodlands are a striking feature of the landscape. Hedgerows and trees are also important textural elements and link with woodlands providing green networks between areas of woodland and a perception that the landscape is even more wooded than it actually is.

The area is a remnant of a much larger area of Royal Hunting Forest, and features of the landscape are evocative of this. Historic associations with the Royal Hunting Forest are strong and add to the landscape's appeal. This is strengthened by the nature conservation value of many areas across the landscape.

LOCAL DISTINCTIVENESS, LANDSCAPE CONDITION AND LANDSCAPE CHANGE

The elevated landform, emphasised by woodland on higher ground, makes this landscape character type a distinctive part of the southern boundary of the county and an orientation point when navigating through the adjacent undulating lowlands. The landscape is generally in good condition, with productive farmland and well-managed areas of woodland interspersed with small rural settlements. In the vicinity of Silverstone, however, modern development and road improvements have diminished the area's rural character.

Agricultural intensification, and in particular a shift from pastoral / mixed farming to arable, has resulted in an increase in field size, loss of hedgerows and fragmentation or loss of semi-natural habitats. In some areas of arable farming, some hedges are over trimmed. The planting of conifers and the introduction of non-native species into ancient woodland sites has also had an impact on local character and nature conservation interest.

8 LOW WOODED CLAY RIDGE



Whittlewood Plateau

8a Whittlewood Plateau

The Whittlewood Plateau Character Area is located on the southern boundary of the county, south of Towcester. It comprises a gently undulating landscape drained by a number of streams and tributaries, including the River Great Ouse. Land cover is typically improved pastoral farmland in small to medium sized fields with both grazing cattle and sheep, although arable cereals and horticulture are scattered throughout the area. Limited areas of calcareous grassland are also evident. Typical of the landscape type, woodland cover is extensive comprising mainly broadleaved woodlands. Areas of coniferous planting, mixed woodland and limited sections of young trees and felled woodland are also located within the character area. The majority of woodland cover is ancient having once formed part of the medieval hunting forest of the Royal Forest of Whittlewood. The forest core now consists of ancient woodland, both within the character area, and further scattered remnants beyond Northamptonshire towards Milton Keynes. Bucknell Wood and Hazelborough Wood are two of the largest woodlands on the plateau. The former is an ancient woodland containing a mix of semi-natural broadleaved woodland and coniferous plantation. A small car park, picnic area and play area located at the southeastern edge of the wood provide important recreational facilities in the area. Hazelborough is also ancient with oak and younger conifer plantations. The wood is gradually being restored to native broadleaved woodland under the 'Ancient Woodland Project'. Although no formal recreational facilities are available, rights of way pass through and adjacent to the wood. Buckingham Thick Copse is significant. This large area of oak-ash woodland has a number of veteran trees of considerable value for dead-wood invertebrates. The wood also supports a number of scarce woodland butterflies.

8 LOW WOODED CLAY RIDGE

The three villages of Syresham, Silverstone and Whittlebury are located on the plateau. Each has a different morphology. Whilst Whittlebury has developed in a linear form, Syresham has developed around the junction of several roads and Silverstone contains a central core from which modern expansions have developed to the north, south and west. Isolated scattered farms and individual dwellings lie beyond the village settlements. These are frequently accessed via minor tracks, although also located adjacent to the roadside. Wakefield Lodge and surrounding grounds is an important dwelling in the area with the Lodge modelled on Inigo Jones's hall in the Queen's House at Greenwich. Capability Brown was responsible for the creation of the large lake located within the grounds.

Recreational opportunities are diverse in the character area ranging from woodlands that are accessible to the public, and rights of way criss crossing the landscape, in particular the Grafton Way that forms the northeastern boundary of the area. Located on the southern boundary of the character area is Whittlebury Park Golf and County Club, set within a parkland landscape dominated by mature oak trees and contained by metal parkland fencing. Silverstone Motor Racing Circuit is also located along the southern and county boundary. Developed on the site of a former wartime airfield it provides a notable recreational facility. To the south, it is also contained by the substantial estate woodlands associated with Stowe Park that extends up to the perimeter of the Racing Circuit. Converted in 1948, Silverstone used a combination of runways to create the main track, and a perimeter road was also established. From 1950 until 1975, the track remained largely unchanged until the introduction of a new section in 1987, but in 1991 the track was substantially changed. Beyond the internal trackway, no significant changes were undertaken until 2001/2, however. A new entrance area has been developed and access upgraded on the western road from a single track to dual carriageway, with evidence of new hedgerow and tree planting. In close proximity to the Racing Circuit, the dualling and upgrading of the A43(T) has been completed to provide a by-pass for through traffic, thus avoiding congestion in Silverstone village, particularly during main events. The recently completed by-pass has prominent ground remodelling and lighting columns visible from surrounding areas. Adjacent to the main circuit is Silverstone Rally School of which glimpsed views are possible of cars on the track. Whilst large sections of the Whittlewood Plateau remain inaccessible, there are a number of roads passing through the area including the A43(T), A413 and A5(T).

Although an intimate character prevails due to expansive woodland cover, longer views over the surrounding landscape are possible from areas that are more elevated to the north. Prominent features in views are the water tower south of Whittlebury, the telecommunications mast north of the Racing Circuit and sections of the Racing Circuit itself.

8 LOW WOODED CLAY RIDGE



Salcey Forest and Yardley Chase

8b Salcey Forest and Yardley Chase

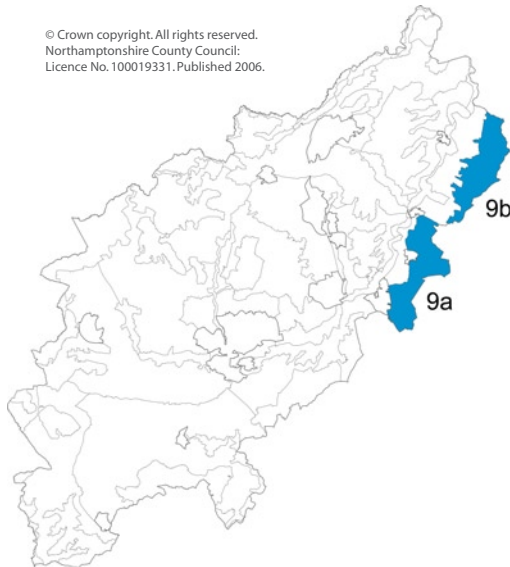
To the southeast of Northampton, and extending up to the southeastern boundary of the county is the Salcey Forest and Yardley Chase Character Area. The area is characterised by a predominance of arable cereals and horticulture, although scattered fields of improved pasture, often with grazing sheep, occur around the northwestern woodlands of Yardley Chase, around the edge of Yardley Hastings and Easton Maudit. Large and medium to large-scale fields under arable cultivation sweep over the landscape. In contrast, pastoral fields are generally smaller. Occasional small-scale fields of calcareous grassland are evident around the settlement of Hartwell, along the course of the dismantled railway northeast of Salcey Forest, and the northwestern woodlands of Yardley Chase. Woodland cover is extensive, comprising mainly broadleaved woodlands with smaller areas of coniferous plantation and scattered sections of mixed woodland and felled areas. The majority of woodland cover is ancient having once formed part of the medieval Royal Hunting Forest of Salcey and Yardley Chase. There are many reminders of the past still evident in Salcey Forest, including many miles of ancient woodbanks, building remains and ancient trees. The 'druids' or veteran oaks in Salcey are rare, with some of the old oaks believed to be over 500 years old. The forest, managed by the Forestry Commission also provides a valuable recreational resource with a number of car parks located in grassy open glades and numerous rights of way passing through the woodland, including the Midshires Way, Swan's Way and Milton Keynes Boundary Walk. By contrast, the woodlands of Yardley Chase have limited access and rights of way passing through them. The Milton Keynes Boundary Walk passes along the southern edge, however, in the 1900s, the forest was extensively utilised for the storage of weapons, ammunition and bombs during World War II. Around the woodland, and the area used for training, are bunkers with surrounding moats that were used to store the munitions. Tracks cutting through the chase led to the bunkers and once formed part of the rail network. The bunkers were built both in open ground and wooded areas to ensure they would not all be spotted from the air, and are a considerable distance apart in case one was to be attacked or exploded. Surrounding the whole of the area is an eight-foot high fence that at one point would have been patrolled by guards and dogs. The northwestern woodlands of Yardley Chase also form part of the extensive gardens of Castle Ashby, located in the Undulating Hills and Valleys landscape type. Connecting the main house and parkland at Castle Ashby is a mile long avenue of trees, dating back to 1695. It extends into the Low Wooded Clay Ridge and then encompasses significant areas of ancient woodland. Horton Hall is also of historic importance within the character area. The associated structures of The Green Bridge, Ice House, New Temple, The Menagerie and The Arches are all Grade II listed. The surrounding 115 acre parkland landscape was mainly laid out in the mid 18th Century, although earthworks dating to an earlier period are still visible.

The village of Yardley Hastings and the edges of Horton and Hartwell are located in the Salcey Forest and Yardley Chase character area. Located along the northwestern edge of the character area, each of the villages has developed in a linear form along a number of roads, although Hartwell has increased in width with the development of post-war dwellings. Otherwise, the landscape is sparsely settled with isolated farms and dwellings, often of varying character, style, detailing and materials and frequently set back from the roadside along a minor track. Although the M1, A428(T), B526 and B5388 pass through the landscape connecting villages and the wider landscape, large tracts remain inaccessible, unless on foot.

9. FARMED CLAYLANDS

CHARACTER AREAS

- 9a Chelveston and Caldecott Claylands
- 9b Polebrook Claylands



Farmed Claylands

KEY CHARACTERISTICS

- Extensive drift deposits of Boulder Clay mask the underlying solid geology;
- expansive, flat or gently undulating landscape where plateau areas are divided by broad shallow valleys;
- wide views give the landscape an expansive and sometimes exposed character;
- open and intensively farmed arable landscape with large scale fields bounded by open ditches or sparse, closely trimmed hedges;
- limited woodland cover and hedgerow removal contributes to open character;
- thinly settled landscape, feeling remote in some particularly sparsely settled areas;
- often direct rural roads and tracks, frequently bordered by ditches, cross the landscape in a consistent orientation, giving it a distinctive grain;
- farms and isolated houses at end of tracks; and
- diversity of building materials including brick and limestone.

9. FARMED CLAYLANDS

LOCATION AND INTRODUCTION

The Farmed Claylands Character Areas define the northeastern boundary of the county between Rushden and Elton and extend beyond the county into neighbouring Cambridgeshire where they continue eastwards towards the level fenlands and southwards where they meet chalkland landscapes.

Although the landscape only reaches a maximum elevation of 100m ASL, the elevated land represents the watershed between the catchments of the River Nene to the north and River Great Ouse to the south. Watercourses are not a significant feature of the landscape, however, and occupy broad, shallow valleys that are often cleared of bankside vegetation, thus making them difficult to discern in the landscape.

This gently undulating landscape has a strong agricultural character and consists of large-scale arable farmland with open fields, sparse trimmed hedgerows and watercourses flowing through broad shallow valleys, often cleared of bankside vegetation.

Historically the area was sparsely settled up until the medieval period when improved ploughs and population pressure necessitated expansion of settlements onto the heavier claylands, previously cloaked in dense woodland. Woodland is now not a dominant land cover element and comprises small shelter belts and copses although some large ancient woodlands exist in the Polebrook Claylands landscape character area.

Despite the low elevation of the landscape, the effects of limited woodland cover and large, open arable fields allow wide panoramic views over the Farmed Claylands, giving them an expansive character.

Roads passing through the landscape share a consistent orientation, and are often direct routes, thus giving the landscape a distinctive grain and geometric, ordered character that is echoed in the arrangement of fields.

PHYSICAL INFLUENCES

Geology and Soils

The Farmed Claylands are underlain almost entirely by mudstones of the Oxford Clay Formation. Limited areas of Kellaways Sand sandstones and Cornbrash Formation limestones are evident, however, along the western fringes of the landscape where land falls towards the Nene within the Limestone Valley Slopes landscape character type. The solid geology is rarely exposed from beneath the thick mantle of glacial till which extends across the claylands. However, where the action of water at the headwaters of streams draining towards the Nene and Great Ouse has removed the superficial deposits, limited areas of the underlying rock strata come closer to the surface. The mantle of drift geology has generally precluded quarrying of any form, although small former quarry sites have been identified on the western boundary of the landscape character areas that fall within this type. Limited stretches of alluvium form narrow floodplains bordering streams draining the landscape eastwards to the River Great Ouse.

Soils across the area are predominantly clays, derived from the underlying boulder clay drift deposits. They are heavy and cold, as a consequence of the high clay content, and are slowly permeable calcareous clayey soils. Some, however, are slowly permeable non-calcareous clayey soils with a slight risk of water erosion. To the west of the landscape type within land overlying the Kellaways Beds and Cornbrash, soils are lighter forming a mixed loam. Here, the soil is characterised by well drained calcareous clayey and fine loamy soils over limestone, which in places are shallow and brashy and on occasions, deeper and slowly permeable calcareous clayey soils.

Landform

The soft mudstones have been eroded by numerous streams to form a gently undulating landscape in which watercourses occupy broad shallow valleys. This geological structure has been further softened and smoothed by the deposition of glacial deposits.

Land rises in the east to a maximum elevation of 100m ASL and falls gradually eastwards and northwards to 30m ASL where the headwaters of tributaries of the River Great Ouse flow along broad valley formations.

Hydrology

The Farmed Claylands mark the watershed between the Nene and Great Ouse catchments, with streams originating on the claylands flowing westwards to the Nene and eastwards to tributaries of the River Great Ouse.

Watercourses are gently flowing and occupy broad, shallow valleys, and create a gently undulating landform across the claylands.

Land Use and Land Cover

The landscape consists of intensively managed arable farmland with large fields defined by sparse trimmed hedgerows. Modern agricultural practices have had a significant influence on the landscape, with increased mechanisation having led to the removal or decline of hedgerows, and the amalgamation of fields to maximise land in production, and also accommodate large machinery. Permanent pastures and small areas of unimproved calcareous grasslands are also evident, largely in small fields on the fringes of villages.

9. FARMED CLAYLANDS

Woodland and Trees

Woodland is not a significant or characteristic feature of the Farmed Claylands, many areas having been cleared of woodland for intensive arable production. Over much of the landscape woodlands are small deciduous shelterbelts. Elsewhere lines of poplar mark the horizon and offer a degree of shelter. Ancient deciduous woodlands are few in this landscape although significant areas are conspicuous on the Polebrook Claylands to the west of Lutton and north of Clopton. The most significant area of woodland is Ashton Wold to the north of the Polebrook Airfield. Here, woodland is regarded as a good example of the development of ancient secondary woodland into natural woodland. Smaller remnants of ancient woodland are also evident close to moated sites as at Papley and Kingsthorpe Lodge. This indicates that less intensive arable farming has taken place in the vicinity of these monuments.

Hedgerow and field trees, whilst not frequent or a common characteristic, are important locally and often represent the only strong vertical elements in the flat or gently undulating agricultural landscapes.

HUMAN INFLUENCES

Buildings and Settlement

Historically the heavy, cold soils of the claylands precluded widespread settlement. However, population pressure and the improved ploughs of the medieval period stimulated woodland clearance and the establishment of farmland and some permanent settlement. The existing settlement pattern reflects this, with only a small number of villages and hamlets scattered through the landscape interspersed with isolated farmsteads.

Villages and hamlets tend to line the direct roads cutting through the landscape and have a distinctive linear arrangement. The larger villages tend to be more compact, with the village church located at the junction of two or more roads, as at Lutton and Thurning. Other settlements have a much looser arrangement, and where present the church is sometimes some distance from other village buildings, as at Caldecott and Hemington.

Isolated farms often border and abut the main routes through the landscape, although others are located at the end of narrow tracks. Larger farm units have created the need for large storage buildings, which can be a dominant element of the landscape visible from wide areas, particularly if located on more elevated land. In such instances, these buildings are prominent on the skyline although their impact is reduced with adequate tree planting.

Heritage Features

Across the heavy claylands dense woodland and heavy soils deterred prehistoric farming and widespread Roman settlement. However, population pressure and the use of improved ploughs led to increased medieval settlement of the claylands, indicated by remnant areas of ridge and furrow, and moated manors. These still survive across the landscape despite improvement and more intensive arable farming in recent decades.

Moated manor sites are perhaps the most evocative historic features across the landscape. Many of these sites have been designated as Scheduled Ancient Monuments and are located close to existing villages, hamlets and farms indicating a continuity of settlement from the medieval period. However, none is found in close proximity to surviving areas of ridge and furrow, which is an indication of the widespread ploughing up of these areas in recent decades.

Boundaries and Field Patterns

Sub regular field patterns are most common on the Farmed Claylands, particularly along the eastern fringes where they extend into the Claylands of Bedfordshire and Cambridgeshire. Discontinuous fields are also significant in these areas of intensive arable farming, particularly on lower, flatter areas of the landscape. Large fields are common and reflect intensive arable farming practices, with hedgerow removal and field amalgamation evident in many areas. Despite the predominance of large fields, a more intricate pattern of small regular fields is evident on the fringes of villages and hamlets although this is not always the case.

Field boundaries are often defined by well clipped hedgerows, although in places these have been grubbed out to leave no visible trace or a simple linear grass bank to demarcate separate fields. Where no visible boundary features are evident, contrasting land uses or plough lines mark the extent of individual fields in the landscape.

Communications and Infrastructure

In many areas a rigid geometric framework of minor country lanes reinforces the pattern of the landscape. These tend to follow direct routes across the landscape and lie at right angles to each other, being orientated either southwest to northeast, or southeast to northwest. Sometimes, this framework is echoed in the orientation of geometric field boundaries, although this is not always the case, indicating that perhaps the more organic field boundaries originated prior to formal enclosure, possibly during the medieval period. Indeed some roads also follow a winding course through the landscape. Older villages and hamlets tend to be located on these winding lanes. Farmsteads tend to be located on straighter roads, however, indicating that both the route and farmstead date to the enclosure period.

The most heavily trafficked roads crossing the claylands are the A45 and A14, which converge on Thrapston. Beyond these routes, however, roads tend to be quiet rural lanes.

9. FARMED CLAYLANDS

A disused railway line runs through the landscape between Denford and Hargrave. It is identifiable by the stretches of embankment and scrub vegetation. Perhaps the most prominent infrastructure feature in the landscape is the large telecommunications station to the east of Chelveston. This contains a number of prominent masts, which gain visual prominence in the gently undulating, open agricultural landscape. High voltage transmission lines are also highly conspicuous to the east of Luton where they form a significant linear landscape feature running across the claylands.

Recreation

There are few recreational opportunities in these highly managed agricultural landscapes. However, footpaths are relatively common and cross through areas of open landscape between villages. A number of footpaths mirror the alignment of roads through the landscape and take a direct course across arable fields. Elsewhere, footpath courses are more sinuous, such as the network of paths to the west of Luddington in the Brook, where they follow a number of watercourses. There are no National Trails or tourist trails in the Farmed Claylands, although the Three Shires Way marks the southern extent of the landscape type, and county boundary, to the southeast of Rushden.



Old hangars on Farmed Claylands

AESTHETIC AND PERCEPTUAL QUALITIES

The landscape is characterised by gently undulating or flat lowland farmland. Intensive farming practices are widely employed, and the effects on the local landscape are considerable and have a major influence on how the landscape is perceived and experienced. The rigid geometry of roads is reinforced by the patterns created by fields although this is breaking down where hedgerows are becoming gappy or have been grubbed out to accommodate large scale farming machinery.

Wide open views are possible across the landscape, particularly in areas where hedgerow removal has been widespread. This gives the landscape an open and exposed character, reinforced by the sparse settlement pattern. The scale of the landscape is emphasised by hedgerow removal and monoculture, leading to a vast sweeping landscape of similar texture and colour, in which it is difficult to determine scale and distances. Where present, vertical elements such as buildings, trees and woodlands provide a means by which to judge landscape scale and act as eye catchers in an otherwise relatively featureless horizontal landscape. Despite wide areas displaying intensive farming practices, buildings, hedgerows, trees and a more intricate pattern of smaller fields combine to give the landscape surrounding settlements a more human and intimate scale.

Large scale agricultural 'sheds' and out buildings are constant reminders of the landscape's function as a highly productive farming area. The vast scale of farm buildings is mirrored in the large stock piles of square hay bails that are located throughout the landscape.

9. FARMED CLAYLANDS

LOCAL DISTINCTIVENESS, LANDSCAPE CONDITION AND LANDSCAPE CHANGE

The landscape is intensively farmed with a productive and highly managed character, particularly where hedgerows are low and well clipped. In some areas, however, the landscape displays an under-managed, sometimes derelict character particularly where hedgerows are gappy or overgrown, or they have been removed.

The intensive nature of farming across the landscape has led to the loss of hedgerows and woodland and to the fragmentation of semi-natural habitats. This is very evident in the landscape, which has an overriding modern and man made character. There is also little perception of time depth in these landscapes, as a result of the relative scarcity of visual historic features in the landscape.

Despite these factors, the landscape is generally in good condition, with productive farmland and well-managed small areas of woodland interspersed with rural settlements and farms. The relative absence or perceived absence of features of nature conservation and historic interest make this a relatively indistinctive landscape, however, with only limited visual appeal. Nevertheless it provides a strong contrast to other landscapes in the county and for this reason is notable as a separate landscape character type.



View to Raunds

9a Chelveston and Caldecott Claylands

The Chelveston and Caldecott Claylands Character Area is located on the eastern edge of Northamptonshire, bordered by the Limestone Valley Slopes and the urban areas of Rushden, Higham Ferrers and Raunds. The area is characterised by a predominance of arable cereals with fields of arable horticulture and occasional areas of improved pasture and calcareous grassland. Pastoral fields are frequently found around the edge of settlements such as Rushden and Thrapston, though a large concentration is also evident around Brigg's Lodge Farm and Buscott's Lodge. A significant area of calcareous grassland also occurs around Higham Park and Newton Bromswold. Whilst arable fields are, in general, large and medium to large in size and pastoral fields are small to medium, fields in close proximity to settlement and adjacent to the A45(T) are, overall, smaller in size resulting in a more intimate character. Woodland cover is sparse, restricted to occasional broadleaved copses often geometric in shape and a single coniferous plantation north of Hargrave. As a result, an open character prevails across the largely flat and expansive landscape. Scattered hedgerow trees of oak and ash provide the only other tree cover in the area.

The main settlements in the character area are the villages of Hargrave, Caldecott, Newton Bromswold, Higham Park, and the outer edges of Ringstead and Chelveston. Although the majority have a linear form, Chelveston has developed around a number of road junctions and the village of Ringstead is a compact, nucleated settlement. Beyond this lies a rural landscape of scattered farms and dwellings, located both at the end of long straight tracks running at right angles to the road and adjacent to the roadside. The alignment of the network of minor roads that connect settlements and individual dwellings emphasise the natural grain of the landscape. The A45(T) provides the only main road within the area from which there is evidence of localised noise intrusion. Other infrastructure elements, however, have a more significant impact on the landscape. Located on the southeastern boundary of the area, a telecommunications station with several transmitters is prominent on the skyline along with a radio mast at Hare Spinney. To the east of Brigg's Lodge Farm and west of Higham Park, water towers are also evident in the landscape. In this lowland landscape, church spires often provide important focal points and punctuation marks in the landscape, with notable examples at Raunds, Stanwick and Newton Bromswold.

Recreational opportunities are limited in the Chelveston and Caldecott Claylands and although a number of rights of way pass through the landscape, there are no National Trails. Rushden Golf Course, southwest of Chelveston, provides the only recreational feature. Heritage features are also limited, with only scattered fields of ridge and furrow.



Arable to edge of open road

9b Polebrook Claylands

The Polebrook Claylands Character Area is located on the eastern boundary of the county and bordered to the west by the Limestone Valley Slopes. Characterising the area is a predominance of arable cereals and horticulture in large, expansive fields often with open road verges, and small pockets of improved and calcareous grassland. These are particularly prominent around woodland west of Lutton and around the villages of Lutton, Thurning, Luddington in the Brook and Clopton. A significant area of setaside land, comprising calcareous unimproved lowland grassland, is also evident on the disused Polebrook Airfield, which is designated as a County Wildlife Site. The airfield was home to the 351st Bombardment Group (Heavy) of the 8th Airforce, who flew B17s on 311 group combat bombing missions between 1943 and 1945, during which time 175 aircraft and crews were lost. Located on the site of the airfield are monuments to the men who lost their lives. North of the airfield is Polebrook Airfield Nature Reserve, located on the southern edge of a significant woodland block within the character area. The central block of woodland comprising Ashton Wold and Bluestone Covert provides a good example of ancient secondary woodland developing into natural woodland and dates from before 1824. Areas of ridge and furrow are also evident beneath the woodland. Surrounding Ashton Wold and Bluestone Covert are smaller broadleaved copses with a small mixed woodland and two areas of young tree planting south of Lutton Road. Scattered throughout the area are small, predominantly broadleaved woodlands with further areas of broadleaved ancient woodland evident on Burton Wold. Whilst overall the area has an open, expansive and sweeping character, a sense of enclosure and intimacy prevails where views are contained by woodland blocks.

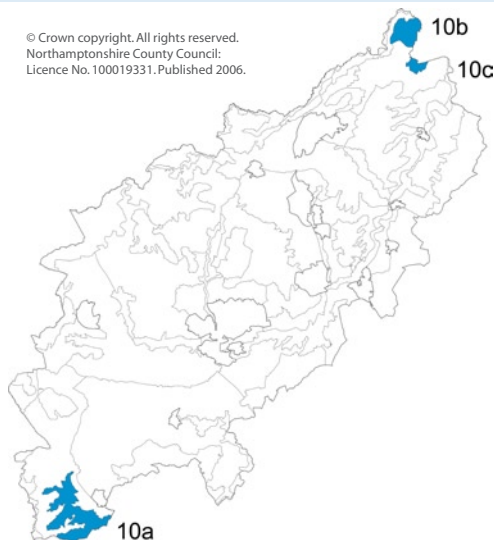
The history of the area as an arable landscape is reflected in the pattern of farmsteads and associated outbuildings. Disused aircraft hangars on the southern edge of Polebrook Airfield Nature Reserve, and now used as agricultural buildings, are prominent against the wooded backdrop that limits some long distance views. In general the landscape is relatively sparsely settled, with the villages of Clopton, Thurning, Luddington in the Brook, Hemington, Lutton and Papley lying along the junctions of minor country lanes passing through the landscape. Minor country roads criss cross the landscape connecting villages and individual dwellings, although overall access is limited. Numerous rights of way provide some access to more remote places in the character area.

Heritage features in the Polebrook Claylands include the site of the medieval village of Papley, Beaulieu Hall and scattered areas of ridge and furrow. Landmarks in the landscape are limited, with a water tower southwest of Hemington, the church spire at Winwick, a transmission station west of Morborne and high voltage pylons on the eastern boundary together providing the only prominent vertical features.

10 LIMESTONE PLATEAU

CHARACTER AREAS

- 10a Croughton, Aynho and Farthinghoe Plateau
- 10b Collyweston Limestone Plateau
- 10c King's Cliffe Plateau



Limestone Plateau

KEY CHARACTERISTICS

- **Limestone geology evident in local buildings, structures and walls, and as stones in ploughed fields;**
- **gently undulating and elevated open plateau;**
- **expansive long distance views and wide panoramas across the open plateau;**
- **predominance of arable land with isolated areas of improved pasture and setaside land;**
- **limited areas of calcareous grassland;**
- **sparse woodland cover comprising small deciduous and occasionally coniferous farm woodlands and shelterbelts limiting the sense of exposure locally;**
- **fields predominantly large and medium to large, and a mix of both geometric and regular in shape;**
- **small, and small to medium sized fields conspicuous surrounding settlements and farmsteads;**
- **distinctive network of dry stone walls enclosing geometric fields on the Collyweston Limestone Plateau;**
- **elsewhere, fields generally enclosed by hedgerows with mature hedgerow trees;**
- **sparsely settled beyond isolated farmsteads and a small number of villages;**
- **communication routes principally limited to direct, minor roads connecting small settlements and individual dwellings;**
- **vertical elements gain visual prominence in the flat, open landscape; and**
- **conspicuous use of plateau landscape for military airfields.**

10 LIMESTONE PLATEAU

LOCATION AND INTRODUCTION

The Limestone Plateaux are discrete, distinctive areas of flat or very gently undulating landscape on limestone geology located at the northern and southern boundaries of the county. Whilst not apparent in all views, the nature of the underlying geology is widely evident, either as stone used in local buildings and structures, or the presence of stones across ploughed farmland. On the Collyweston Limestone Plateau stone is evident in walls and also as roofing slates for which the area is renowned.

In the south of the county the plateau landscapes stretch from Farthinghoe southwards into neighbouring Buckinghamshire and Oxfordshire, where they merge into the limestone landscapes of the Cotswolds. In the north of the county, two separate areas of plateau have been identified on the border of Northamptonshire and the City of Peterborough Unitary Authority.

Despite the landscape only reaching a maximum elevation of 130m ASL, the proximity of the surrounding lowlands and river valleys ensures that the Plateaux retain an elevated character. This is particularly the case in the north of the county where the Plateau lies adjacent to the Farmed Scarp Slopes landscape character type and from where views over the Welland Valley into the neighbouring lowlands are possible.

The plateau landscapes are sparsely settled. They also have a strong agricultural character, with arable farmland the predominant land use. Fields are generally defined by hedgerows, but stone walls are also conspicuous on the Collyweston Limestone Plateau where the landscape is evocative of the limestone landscapes within the Cotswolds and Derbyshire. Also conspicuous are active military airfields. These are surrounded by areas of improved grassland, and also areas of unimproved calcareous grassland. They are also associated with significant infrastructure developments, which make an important contribution to local distinctiveness.

Isolated farmsteads are located throughout the plateau farmland. Settlements in the landscape tend to be compact villages and are located at the fringes of the plateau where they can sometimes spill over into the surrounding lowland landscapes.

Despite the low elevation of the landscape, the effects of limited woodland cover and large, open arable fields allow wide panoramic views across the plateau, giving them an expansive character in places, particularly at their fringes.

PHYSICAL INFLUENCES

Geology and Soils

The uniformity of landscape character across the Limestone Plateaux reflects the significant influence the underlying geology has had upon the landscape. Oolitic limestones are prevalent although other rock types are evident and have localised influences.

The southernmost area of plateau, the Croughton, Aynho and Farthinghoe Plateau, is formed almost entirely on Blisworth Limestone Formation (also known in this area as White Limestone). Areas of sandstone are also evident, although these are largely limited to the western and northern fringes. In the north of the county Inferior Oolite underlies the area. The Collyweston Limestone Plateau is largely formed on Lower Lincolnshire Limestone with limited outcrops of the ironstone rich Northampton Sand Formation occurring at the fringes of the landscape. The King's Cliffe Plateau is formed primarily on the Cornbrash Formation fringed by limited areas of Blisworth Clay Formation and Rutland Formation Sandstones.

The underlying geology is expressed in the buildings, walls and roof slates across the plateau landscape. Shaley limestone rock fragments can also be found in the soil of ploughed fields, which in places is widespread and indicates the proximity of solid geology close to the surface.

Drift geology is not characteristic of the plateau, although a significant area at the centre of the King's Cliffe Plateau is cloaked in glacial boulder clay.

Soils across the limestone plateaux are generally thin, stony, free draining and alkaline in nature. In the most southern of the Limestone Plateaux shallow, locally brashy, well drained calcareous fine loamy soils predominate. To the north, however, the limestone plateau at Collyweston is overlain by a shallow, well drained, brashy, calcareous, fine loamy soil and at King's Cliffe, the soil comprises a slowly permeable, seasonally waterlogged, clayey and fine loamy over clayey soil.

Landform

The plateau landscapes are relatively low, rising to a maximum of 140m ASL on the Croughton, Aynho and Farthinghoe Plateau, although the greater proportion of this landscape character area has a consistent elevation of 130m ASL. In the north of the county, the plateau rises to just 90m ASL. Despite the relatively low elevation of these plateau landscapes, the flat or very gently undulating landform, combined with wide, uninterrupted views over the surrounding lowlands give the impression that these landscapes are more elevated than they are.

Landform is characteristically flat or gently undulating. More varied and steeper sloping landform is often found at the fringes of the plateau areas marking the transition into neighbouring landscape character types.

10 LIMESTONE PLATEAU

Hydrology

Few watercourses originate on the limestone plateau, indicative of the porosity of the underlying geology. Where present, streams are small and occupy very broad valley forms that create localised undulations in the plateau. Valleys do become more pronounced at the fringes of the plateau, however, but even here only subtle valley formations are evident.

A small number of ponds are also evident in the landscape although their impact on local landscape character is limited.

Land Use and Land Cover

The landscape consists of arable cereal and horticultural farmland in roughly equal proportions, and the plateau appears productive and relatively well managed. In some areas large agricultural 'sheds' are indicative of intensive agricultural practices being employed, as are the large blocks of hay bails. However, gappy hedgerows and neglected and dilapidated dry stone walls are evidence of poor management practices.

Close cropped improved grassland and small areas of unimproved calcareous grassland is also evident in the landscape although these areas tend to be localised and associated with the large military airfields that have been established on the plateau. Improved pasture is also evident in small fields, often in close proximity to settlements and farms.

Woodland and Trees

Woodland is not a significant or characteristic feature of the Limestone Plateau. Where woodlands do exist, they tend to be small deciduous copses and shelterbelts. They are generally geometric in form and located bordering streams at the edges of the plateau where the landform becomes steeper as it slopes down to the neighbouring lowland landscapes. On the plateau tops, woodlands are small and tend to be widely spaced resulting in an open character across the landscape. Ancient deciduous woodlands are few in this landscape although some small areas exist, particularly on the fringes of the plateau.

Hedgerow trees and small areas of tree planting surrounding farmsteads are important locally as they often represent the only strong vertical elements in the flat or gently undulating agricultural landscapes. Coniferous tree planting is also characteristic of military airfields although the use of alien species offers little to the character or nature conservation interest of the landscape.

HUMAN INFLUENCES



Easton on the Hill

Buildings and Settlement

The Limestone Plateaux are only sparsely settled, with isolated compact farmsteads being the main form of settlement within the landscape, contributing to the sometimes empty and remote character. Where present villages are small and compact, closely clustered around the church, which is often sited at the point where numerous roads converge. The use of local limestone and roofing slates is a particularly characteristic feature of the village settlements providing a strong unity with the underlying limestone geology. The larger clusters such as Easton on the Hill, Collyweston, Aynho and Farthinghoe are characteristically sited at the fringes of the plateau where land begins to dip into the neighbouring lowland landscapes. Regimented areas of military style housing are also conspicuous, associated with RAF Croughton. Here the settlement patterns, buildings styles and materials are dictated by military planning and are poorly integrated with the surrounding landscape.

10 LIMESTONE PLATEAU

Heritage Features

There are few visible historic monuments or features evident across the Limestone Plateaux. Elsewhere in the country, on similar landscapes, heritage features are more prolific, for example in the Cotswolds where the wolds contain numerous prehistoric funerary monuments and hillforts. However, in Northamptonshire it is possible that clearance for intensive agriculture has eradicated many sites of interest, including barrows and other earthworks.

The main concentration of heritage sites occur on the Croughton, Aynho and Farthinghoe Plateau, the most dominant site being Rainsborough Camp, an Iron Age hillfort which was probably occupied from around 600BC until early in the 1st Century AD, and again in Roman times. It is also thought that a funerary monument dating to the Neolithic period is situated in the landscape to the east. The remains of a medieval Moated Manor and the deserted medieval village of Astwick is located to the east, between Evenley and Croughton, and is visible as a series of humps and bumps in the pasture.

Despite the medieval origins of settlements fringing the landscape, few field systems or areas of ridge and furrow dating to the period are extant in the landscape. This is further evidence of reconfiguration and intensive farming following the period of enclosure.

Airfields are also an important feature of the landscape. These were originally sited on the plateau to take advantage of extensive flat areas of agricultural land and some have been enlarged and reconfigured to meet defensive and logistical needs. Large military establishments include RAF Wittering and RAF Croughton and are significant landscape features with an interesting history. RAF Wittering, for example, dates back to 1916 when Wittering Aerodrome was established on Wittering Heath as the home of Number 1 Training Depot. It was subsequently merged with RAF Collyweston during the Second World War. It is now the home of the Harrier Jump Jet, perhaps one of the most readily identifiable aircrafts of the RAF. A disused airfield is located on the King's Cliffe landscape character area. Few features remain, however, although concrete runways are still traceable in the landscape, and brick buildings characteristic of military usage are also evident.

Boundaries and Field Patterns

Large, sub regular and regular fields are characteristic of the Limestone Plateaux. The Collyweston Plateau is noteworthy for containing geometric patterns, particularly where dry stone walls are used to define boundaries. Small and medium sized fields are also evident, although these tend to be located in the vicinity of settlements and houses. Discontinuous patterns are also evident but tend to be restricted to airfields.

Field boundaries are generally defined by low, well-trimmed hedgerows. Where arable farming predominates, these are gappy and showing signs of significant decline. On the Collyweston Plateau, limestone walls are an important landscape feature, evocative of areas of the Cotswolds high wold. These are also showing signs of decline due to poor management and neglect.

Communications and Infrastructure

Direct roads criss-cross the landscape and provide a subtle geometric framework, which has also influenced the arrangement of fields. Many roads are narrow country lanes and bordered by hedgerows. Many areas lie beyond the road network and are reached by tracks and lanes. These echo the nature of the main routes and are often direct. Only one route has its origins in the Roman period, so the directness of routes can therefore be attributed to formal planning of the landscape during the Enclosures.

Major infrastructure developments are associated with the large military airfields, particularly at RAF Croughton where masts and radar installations dominate the horizon. Elsewhere, there are few infrastructure developments although a water tower and mast are prominent vertical elements on the Collyweston Limestone Plateau.

Recreation

There are few recreational opportunities within these agricultural landscapes. Footpaths are not common and where present tend to be long straight routes crossing farmland and linking villages. The Macmillan Way is the only significant route and crosses a short distance through the Collyweston Limestone Plateau at Easton on the Hill.

AESTHETIC AND PERCEPTUAL QUALITIES

The landscape is characterised by gently undulating or flat plateau farmland. Despite being only limited in extent, and of relatively low altitude, the Plateaux give the impression of an expansive and large-scale landscape. They also retain an isolated character across wide areas as a result of sparse settlement patterns. Where present, hedgerows and woodlands limit long distance views creating shelter and a more human scale landscape. At the edges of the landscape, where land falls steeply to the surrounding lowlands, more extensive views are possible. This is particularly evident on the northern and eastern limits of the Collyweston Limestone Plateau where wide, open views are possible across the Farmed Scarp Slopes and over the valley of the Welland. Here, the landscape has a more elevated and exposed character and the sparse settlement cover further emphasise a sense of isolation. In contrast, other areas such as those around villages and in proximity to the larger military airfields, appear busy and cluttered.

10 LIMESTONE PLATEAU

LOCAL DISTINCTIVENESS, LANDSCAPE CONDITION AND LANDSCAPE CHANGE

The landscape, particularly on the Collyweston Limestone Plateau, is highly distinctive, and evocative of limestone landscapes that stretch along the Jurassic belt from the south coast to the North Sea.

The predominance of arable farming has resulted in the reduced need for well-maintained boundaries and consequently walls and hedgerows are showing signs of decline, giving some areas of the landscape a degraded and poorly managed character. Military airfields are also a distinctive part of the landscape. This is particularly the case on the Croughton, Aynho and Farthinghoe Plateau where communications infrastructure create prominent landscape features.

Despite these factors the landscape is generally in good condition, with well maintained and productive farmland and some attractive, predominantly stone built villages located at the fringes.

10 LIMESTONE PLATEAU



Croughton, Aynho and Farthinghoe Plateau

10a Croughton, Aynho and Farthinghoe Plateau

Located on the most southern part of Northamptonshire, the Croughton, Aynho and Farthinghoe Plateau Character Area forms the most extensive area of limestone plateau within the county. Large and medium to large scale arable cereals and horticulture fields predominate to characterise the area. Smaller scale improved pastures are evident around settlements, however, including Farthinghoe and Evenley, and adjacent to farmsteads such as Warren Farm and Astrophill Farm, and at Rainsborough Camp and the telecommunications station on the southern boundary adjacent to the A43(T). Paddocks of grazing horses are also prominent around farmsteads. Small pockets of set-aside land are evident throughout the landscape, with a notable area on Hinton Airfield. There are no boundary features surrounding the airfield, and it appears to blend into adjacent fields. Low to medium well clipped hedgerows define field boundaries, although in some locations these are gappy, and reinforced with wooden post and rail fences. Wind sown sycamore, maple and ash are evident along hedgerows, in particular around Hinton Airfield. Some hedgerow loss is also evident in this location.

Typical of the landscape type, woodland cover is limited to mainly broadleaved copses of varying size. These are frequently found on the edges of the area, with the exception of Coleready Plantation, north of Charlton, which is located in a more central position on the upper slopes of the gently undulating plateau. Despite scattered woodland blocks and hedgerow trees of mainly mature oak and ash, the elevated plateau landscape allows wide, panoramic views over the surrounding area.

The landscape is sparsely settled, with the villages of Farthinghoe and Aynho located on the edges of the plateau, adjacent to the Undulating Hills and Valleys landscape type. Central to both compact settlements are relatively busy roads passing over the plateau and descending the surrounding hills and valleys. The A43(T) also passes through the area to the southeast. Beyond the main roads, access across the plateau is limited to direct, minor roads connecting villages and isolated farms and dwellings, often aligned in an east / west direction.

Central to the plateau landscape is Hinton Airfield, now used as a skydiving centre. Prominent on the airfield are low storage units and numerous gliders and light aircraft that frequently occupy the airspace above the airfield, creating intermittent noise and activity. Also prominent in the landscape is the radar installation, northwest of the A43(T). Large spherical radar detectors and numerous, single storey outbuildings and storage units intrude in the flat expansive landscape. Surrounding the site a tall chain link fence topped with barbed wire provides further prominent boundary treatment in the largely rural landscape.

Features of historic importance include Rainsborough Camp, a Scheduled Ancient Monument, south of Charlton. This hillfort was constructed and first occupied by Iron Age tribes during the 6th Century BC. During the 4th Century BC the fort was attacked and burnt to the ground and was not refortified and occupied again until the late 2nd Century BC, and then this was only briefly. The site was later occupied by a non-defensive settlement in Roman times during the 1st and 4th Centuries AD. Since then the site has been used as an agricultural landscape. Other features include the site of the medieval village of Astwick and a single area of ridge and furrow around Evenley village.

10 LIMESTONE PLATEAU



Easton on the Hill

10b Collyweston Limestone Plateau

The Collyweston Limestone Plateau Character Area is located on the northeastern edge of Northamptonshire. The elevated plateau landscape is characterised by a predominance of arable horticulture with occasional fields of arable cereal. Limited improved pastoral fields are evident around the edges of Easton on the Hill and Collyweston with more substantial areas of both improved and calcareous pastures on Wittering Airfield. Significant areas of hardstanding and mown amenity style grassland are also evident on the airfield. Whilst field sizes vary, there is evidence of large areas of geometric field systems to the north and west, with smaller areas to the south, illustrating a typical parliamentary enclosure landscape. Large stacks of both round and square bales within fields provide prominent architectural elements in this rural landscape. Limestone dry stone walls define a number of field boundaries, and are prominent in the character area, although these are often poorly managed and overgrown with vegetation. Elsewhere, low and reasonably well maintained hawthorn hedgerows enclose the fields, although occasionally these are gappy. In contrast to the wall and hedged enclosure associated with the agricultural landscape, the limits of the Wittering Airfield is demarcated by prominent chain link fencing with concrete posts.

Woodland cover is limited on the plateau, with small, predominantly broadleaved copses confined to the edge of the character area. Racecourse Woods contains small areas of mixed composition and a limited area of coniferous plantation. Vigo Wood and Rogue Sale are also classified as ancient woodland.

Easton on the Hill is the main settlement within the area. Village buildings, and many other structures such as walls, use the local, pale buff limestone in their construction. In some older properties, rich orange brown ironstone is used alongside the limestone giving individual buildings distinctive and noteworthy character. Local buildings also make use of the Collyweston Slates, which were quarried locally. The village of Easton on the Hill has a compact historic core and modern extensions to the south and west. Located on the northern edge is Priest's House, a pre-Reformation priest's lodge of late medieval origin and, although much altered, the original Gothic doorways and two-tiered windows remain. The first residents were the priests who served at the church on the opposite side of the road. On the western edge of the character area is the outer edges of Collyweston. Beyond this, settlement is limited to isolated dwellings confined to the edge of the plateau, including Easton Lodge and Cuckoo Lodge. Straight roads, again confined to the edge of the plateau, connect settlements and dwellings within the area with only a single road leading to the centre providing access to Wittering Airfield.

Central to the character area is the 20th Century military base of Wittering Airfield, which dates back to 1916. RAF Wittering was home to the first RAF Harrier fleet, which today are active for most of the day, and often in the night. Visiting aircraft will occasionally include RAF training types from Cranwell, as well as Tornado GR4s, with other visitors including Hawks and Hercules, as well as Sea Harriers. Flying is very sporadic and if the Squadron is night flying there may be no activity all day long, and during weekends the base is almost completely shut down. Within the airfield are numerous military buildings, generally constructed from red brick and a prominent spherical radar ball, intrusive in this otherwise flat, open and expansive landscape. Other prominent vertical elements include a windmill south of Easton on the Hill and a water tower southeast of Collyweston.

10 LIMESTONE PLATEAU



Kings Cliffe Plateau

10c King's Cliffe Plateau

King's Cliffe Plateau is the smallest of the Limestone Plateaux, located on the northeastern edge of Northamptonshire. Characterising the area is a predominance of arable cereals with smaller areas of arable horticulture. A single field of improved pasture is evident adjacent to Law's Lawn with a field of calcareous grassland on the boundary of the area southeast of Great Byards Sale. Field sizes are generally large, and medium to large in size and either regular or sub regular; however, fields on the former airfield are discontinuous. Woodland cover is extremely limited with only a single broadleaved woodland, Great Byards Sale, and a smaller coniferous plantation adjacent to this. Scattered hedgerow trees of oak and ash are also limited. Surrounding woodland blocks beyond the county boundary, however, create a wooded horizon in many views.

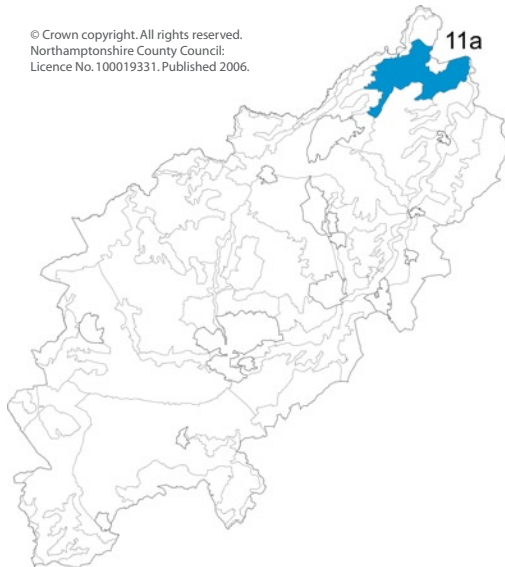
Settlement is limited in the character area to two isolated dwellings and a works area to the northeast. Buildings constructed mainly from red brick are also evident on land that once formed part of King's Cliffe Airfield, although these are now redundant. Only a single road passes over the plateau, which is Roman in origin.

Central to the plateau are the remains of King's Cliffe Airfield, built in 1940. Although developed originally to act as a second line of defence in the event of an invasion, the successful outcome of the Battle of Britain led to the airfield being used as a satellite landing field for Wittering Airfield. King's Cliffe began life as a grassed surface, although hard surfaced runways and a perimeter track were constructed in 1943. The longest runway ran a length of 1700 yards along the east-west axis. Blister hangars were erected for covered maintenance and protracted overhauls, and later used as ammunition stores, which continued until 1959. That same year, the site was sold and the runways torn up, the rubble being used in motorway construction. Some remains are evident today, however, including limited sections of runway, often in field gateways, a few revetments and a crumbling control tower. The area is now under arable cultivation with scrubby hawthorn invasion in places.

11. WOODED LIMESTONE HILLS AND VALLEY

CHARACTER AREAS

11a King's Cliffe Hills and Valleys



Kings Cliffe Hills and Valleys

KEY CHARACTERISTICS

- A series of broad valleys and broad low hills, dipping gradually to the east;
- limited long distance views due to screening effect of landform and woodland blocks;
- Willow Brook provides the main drainage feature, dammed in a number of places to form a series of lakes with other minor tributaries also draining the area;
- predominance of arable land with areas of improved pasture and calcareous grassland frequent along watercourses;
- arable fields frequently large in scale, whilst grazed pastures and calcareous grassland are generally smaller in scale;
- fields a mixture of regular and sub regular shapes enclosed mainly by low to medium height well trimmed hedgerows with infrequent hedgerow trees;
- limited limestone walls evident across the landscape;
- significant woodland cover of varying composition with large areas designated as ancient woodland;
- villages of varying size generally located on lower slopes adjacent to watercourses; elsewhere, the area is thinly settled with farms and individual dwellings;
- country houses and gardens, although limited, are important features in the landscape; and
- communication routes principally confined to minor roads connecting small settlements and individual dwellings, and frequently aligned adjacent to watercourses.

11. WOODED LIMESTONE HILLS AND VALLEY

LOCATION AND INTRODUCTION

The Wooded Limestone Hills and Valleys comprise an area of undulating transitional landscape in the north of the county between the open agricultural farmland of the Limestone Plateau, and the Wooded Clay Plateau associated with Rockingham Forest. The valley of the Willow Brook, a tributary of the Nene, is the dominant landscape feature, above which rise a series of broad low wooded hills that act as watersheds between the numerous streams that drain into the Willow Brook.

The landscape extends as far south as Deene Park, beyond which the Willow Brook's two principal tributaries flow into the neighbouring Ironstone Quarried Plateau. To the northwest, the land falls steeply along the stretch of Farmed Scarp Slopes between Wakerly and Duddington. To the southeast the land falls again, this time more gently, forming the Limestone Valley Slopes that border the Nene.

The landscape is sparsely settled, the main village being King's Cliffe, situated along the valley of the Willow Brook, and Yarwell and Nassington, both of which overlook the Nene valley. As a result of the sparse settlement pattern, the landscape retains a strong agricultural character, with arable farmland the predominant land use on the hills and valley slopes, and pasture along the valley floor and close to woodlands.

The sense of elevation and enclosure varies dramatically across the landscape. Some areas on the fringes of the area afford long distance views over the surrounding lowlands. Within valleys and deep undulations, however, and where significant woodlands screen long and middle distance views, an intimate human scale landscape is perceived.

PHYSICAL INFLUENCES

Geology and Soils

The action of the Willow Brook and its tributaries has exposed the underlying rocks. More elevated areas are underlain by the Upper and Lower Lincolnshire Limestone Formation rocks of the Inferior Oolite, and in other areas by Blisworth Limestone Formation rocks of the younger Great Oolite Group. Oxford Clay Formation, the youngest rocks of the Jurassic period, is also evident on higher elevations and fringing the Wooded Clay Plateau. The action of the Willow Brook and its tributaries has eroded through and exposed a succession of Great and Inferior Oolite rock formations so the sequence from the youngest Oxford Clay capping to isolated outcrops of Grantham Formation sandstone, siltstone and mudstone and Northampton Sand Formation Ironstone are evident within the valley slopes. Drift deposits are not common in the landscape. Alluvium is present along the course of the Willow Brook, however, and glacial till is also evident as isolated patches on higher areas of land. The most significant area lies on the hills to the northwest of King's Cliffe, where the poorly drained soils are cloaked in large areas of woodland.

The outcrop of the Upper Lincolnshire Limestone is very limited in Northamptonshire. However, a notable outcrop occurs in the vicinity of the village of King's Cliffe, where the remains of small quarries are still evident adjacent to the Willow Brook. In addition to its local use, the King's Cliffe Stone has provided an important source of freestone and used for the construction of a number of notable buildings such as Burghley House, some of the Colleges in Cambridge, and parts of the church at Fotheringhay.

The dominant soil cover in the area comprises slowly permeable calcareous clayey soils associated with shallow, well-drained brashy calcareous soils over limestone. There are also smaller pockets of slowly permeable seasonally waterlogged clayey and fine loamy over clayey soils, and slowly permeable seasonally waterlogged clayey with similar fine loamy over clayey soils.

Landform

Landform features within the landscape vary and are a direct result of erosion by the principal watercourses that flow through the landscape, creating broad valleys between areas of upstanding landform. The principal watercourses comprise the Willow Brook, and two other valley formations that drain the landscape northwards to the Welland and southwards to the Nene. Broad, low hills form watersheds between these wide shallow valleys and rise to a maximum elevation of 100m ASL on the fringes of the Ironstone Quarried Plateau. The most prominent landform feature, however, is the wooded ridgeline that lies to the northwest of King's Cliffe. At a more local scale, 'Cliffe' refers to the steep slope adjacent to the Willow Brook that marks the outcrop of the Upper Lincolnshire Limestone. Land dips gradually eastwards and the lowest points in the landscape lie along the valley of the Willow Brook and bordering the Nene floodplain to the south of Wansford.

Landform features, whilst not dramatic, offer a striking contrast to neighbouring plateau areas and steeper landform associated with the Limestone Valley Slopes and the Farmed Scarp Slopes landscape character types.

11. WOODED LIMESTONE HILLS AND VALLEY

Hydrology

The main drainage feature in the Wooded Limestone Hills and Valleys is the Willow Brook. This originates on the Ironstone Quarried Plateau to the east of Corby and flows around the northern extent of the Wooded Clay Plateau in a wide shallow valley into the Nene at Elton. It has been dammed to form lakes at a number of locations on its course, notably at Apethorpe Park and Deene Park where water bodies form part of the designed parklands. To the north of the Willow Brook is a tributary of the Welland that also originates on the Ironstone Quarried Plateau. It flows northwards, separated from the Willow Brook by a low watershed. In the east of the landscape, two tributaries of the Nene rise in the landscape and flow a short distance in wide shallow valleys.

There are few other hydrological features of note in the landscape. A small number of ponds are evident, although their impact on local landscape character is limited. Although some appear to be natural, others appear to have been established in former quarry workings, such as the water bodies to the south of Old Sulehay Forest.

Land Use and Land Cover

Arable cultivation predominates across the Wooded Limestone Hills and Valleys, with large fields of both arable cereals and horticulture, often regular or sub regular in shape and dominating a number of views possible from more elevated hills in the landscape. Long distance views, although apparent across the area are in places restricted by significant woodland blocks on the horizon. Despite the predominance of arable land, smaller fields of improved pasture and unimproved calcareous grassland are frequent along watercourses on gently sloping landform and surrounding village settlement. Calcareous grassland is particularly frequent to the east of the landscape type east of Apethorpe. Improved pastures surrounding villages and farmsteads are often grazed by horses, with associated features such as jumps being prominent in the farmed landscape.

Woodland and Trees

Woodland is a significant characteristic of the character type, in particular along the northern edge where extensive woodland blocks are associated with the ancient Rockingham Forest. Ancient woodlands are common in this landscape, again predominating on the northern edge and to the east. The largest woodland to the west, Wakerley Great Wood, is ancient with a mosaic of larch stands, oak, ash, a stand of ancient Scots pine, and birch scrub woodland. A hazel coppice under storey is prominent under areas of oak. A way marked trail leading from the woodland car park follows the medieval boundary of Wakerley Great Park, remnants of the 13th Century deer park. The woodland, managed by the Forestry Commission is not only a valuable recreational resource with orienteering, footpaths and picnic areas, but it also contains rich and diverse archaeological remains. The oldest features are two rare Bronze Age cairns. To the east of Wakerley Great Wood, Westhay Wood is also ancient with adjoining woodland to the north and northwest managed by the Forestry Commission, again allowing parking facilities and public rights of way. Both of these two woodlands comprise a mix of broadleaved, coniferous and mixed woodland, with areas of young trees. In contrast, Collyweston Great Wood, the third largest woodland is located on the northern boundary of the character type and consists largely of broadleaved ancient woodland. Other woodlands vary in size and shape, although the majority are broadleaved with only occasional small copses that are coniferous. Watercourses are frequently well wooded, contributing to overall woodland cover in the landscape. Hedgerow trees are limited, however, although those that do exist are mature and commonly include species of oak and ash.

11. WOODED LIMESTONE HILLS AND VALLEY

HUMAN INFLUENCES



Cottage at Apethorpe



Apethorpe Church

Buildings and Settlement

A number of villages are scattered throughout the Wooded Limestone Hills and Valleys. They vary in size from moderately sized villages to smaller hamlets containing only occasional dwellings. In general, they tend to be located on lower slopes above watercourses. Village morphology varies, however, with linear settlements, including Bulwick, Blatherwyke and Yarwell, aligned along a single road, whilst settlements such as King's Cliffe and Nassington, aligned at the intersection of a number of roads.

King's Cliffe is a particularly notable stone village, with nearly all of the properties constructed in the locally quarried warm golden King's Cliffe Stone.

Beyond the villages, the landscape is thinly settled with numerous 19th Century farmhouses, frequently stone built, although a number are of more recent construction. The position of farms and dwellings vary with some located adjacent to roadsides passing through the landscape, and others, located at the end of minor tracks accessed via the main arterial road.

11. WOODED LIMESTONE HILLS AND VALLEY



Historic Parkland

Heritage Features

There are a number of visible historic features evident across the Wooded Limestone Hills and Valleys, the main areas of interest being Deene Park and Apethorpe Hall. Deene Park, a Grade II registered historic park and garden located at the most southern point of the landscape covers an area of approximately 375 hectares. It is a largely 16th Century house incorporating a medieval manor, built around a courtyard. A manor was in existence at Deene, however, at the time of the Domesday Book in 1086. Remains of early formal gardens can be found surrounding the house, along with a landscaped park containing a notable collection of trees. Apethorpe Hall, a Grade I listed country manor house located in the village of Apethorpe, is a late 15th Century building. The former Cliffe Park, which was Crown property until 1517 and later owned by the Cecils of Burghley, is also of note. Located adjacent to the Willow Brook near King's Cliffe, the park included a number of quarries which provided an important source of the Freestone

Further evidence of past settlement within the landscape includes limited areas of ridge and furrow scattered throughout the landscape. Two Bronze Age cairns are also located within the extensive area of Wakerley Great Wood.

Boundaries and Field Patterns

Field sizes vary across the landscape, with those under arable cultivation generally being larger in scale, whilst fields of improved pastures and calcareous grassland frequently smaller in size, creating a more intimate character, and often surrounding village settlement. The combination of regular and sub regular fields creates a landscape that has a strong and uniform pattern.

Field boundaries are generally defined by low to medium height, regularly trimmed hawthorn hedgerows that are well maintained with few gaps. Hedgerow trees are extremely limited across the landscape. Where they do exist, however, they are mature species including oak and ash. Although limited within the area, there are a number of limestone walls providing important features within the landscape.

Communications and Infrastructure

The Wooded Limestone Hills and Valleys contain a network of relatively minor roads, with a section of the A43(T) providing the only main road passing through the landscape. Roads frequently align with watercourses, although they also cross them at right angles providing bridging points where settlements have developed, for example at Blatherwyke and Bulwick. Many roads are sinuous narrow country lanes with grass verges bordered by hedgerows connecting small settlements and dwellings. A limited section of Roman Road is evident to the northeast of King's Cliffe, although the majority is contained within the adjoining Limestone Plateau.

Whilst infrastructure developments are generally limited within the landscape type, a dismantled railway passes almost across the entire width of the Wooded Limestone Hills and Valleys. Entering the landscape north of Nassington, the railway passes north of King's Cliffe, through Westhay Wood, and beyond onto the Farmed Scarp Slopes.

Recreation

Recreational opportunities are generally limited across the landscape with a number of public rights of way, including stretches of the Jurassic Way, on the eastern boundary and passing through woodland on the northern edge. Areas of woodland within this area are managed by the Forestry Commission, and open to the public by permission of the landowner. Beyond this, Deene Park provides the only other recreational facility.

11. WOODED LIMESTONE HILLS AND VALLEY

AESTHETIC AND PERCEPTUAL QUALITIES

The landscape is characterised by a strong and uniform pattern of hedged fields and woodland, which frequently results in a simple character. Where particularly long distance views are possible, an open and expansive character prevails. Such views are frequently restricted by landform and vegetation, however, thus reducing the large scale character of the landscape.

LOCAL DISTINCTIVENESS, LANDSCAPE CONDITION AND LANDSCAPE CHANGE

The Wooded Limestone Hills and Valleys are a distinctive landscape. The pattern of areas of ancient woodland, interspersed with arable farmland and pasture along watercourses, are evocative of the area's history, forming part of the Royal Hunting Forest established by William the Conqueror.

The landscape is generally in good condition, with generally well maintained and managed hedgerows and areas of woodland. Hedgerow and field trees, principally oaks, are of local importance and contribute to the landscape type's well treed character within areas where arable farmland is the predominant land use. Parklands, and the influence these have on the surrounding landscape in the form of woodlands, increased tree cover, and estate village architecture, are also an important factor contributing to the landscape's visual appeal.

A number of field and hedgerow trees are showing signs of maturity. In subsequent years, their loss would represent a significant change in the character of the landscape, and lead to these intensively farmed landscapes losing a great deal of their distinctive character.

The undulating character of the landscape and relatively high woodland cover and strength of character combine to create a robust rural landscape that has some capacity to accommodate development and change, as illustrated by the landfill site on former clay pits to the south of Collyweston Great Wood, which has only limited impact on local character.



King's Cliffe Hills and Valleys

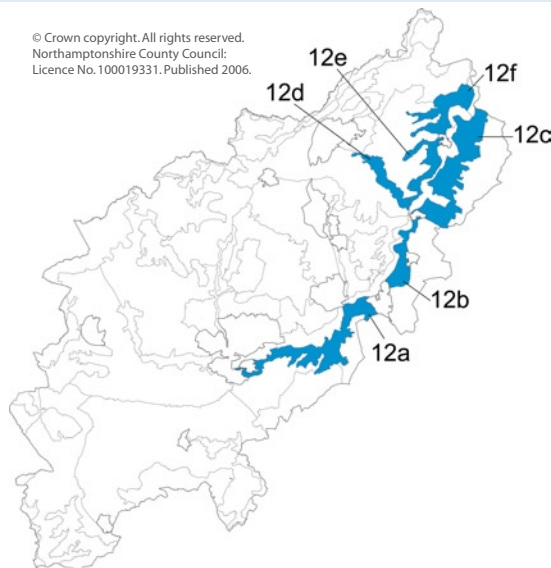
11a King's Cliffe Hills and Valleys

The King's Cliffe Hills and Valleys Character Area is the only landscape character area associated with the Wooded Limestone Hills and Valleys landscape character type within the county. The descriptions above therefore apply to this single character area.

12 LIMESTONE VALLEY SLOPES

CHARACTER AREAS

- 12a Wollaston to Irchester
- 12b Higham Ferrers to Thrapston
- 12c Thrapston to Warmington
- 12d Harper's Brook
- 12e Aldwinckle to Oundle
- 12f Oundle to Nassington



Limestone Valley Slopes

KEY CHARACTERISTICS

- **Transitional landscape displaying characteristics of surrounding landscape character types;**
- **limestone geology evident in local buildings;**
- **gently undulating farmed slopes bordering the Nene and its principal tributaries;**
- **expansive long distance views and wide panoramas across the valley to neighbouring landscapes;**
- **predominance of arable land with isolated areas of improved and semi improved pasture and setaside land;**
- **very sparse woodland cover comprising small deciduous and occasionally coniferous shelterbelts limiting the sense of exposure locally;**
- **fields predominantly large, and medium to large;**
- **small to medium sized pasture fields conspicuous surrounding villages;**
- **fields generally enclosed by hedgerows with intermittent mature hedgerow trees, often showing signs of decline;**
- **numerous villages display close relationship to landform in their morphology and orientation; and**
- **communication routes principally limited to direct roads parallel to the course of the main river channel, minor roads connecting small settlements and individual dwellings running along tributaries at right angles to the main route.**

12 LIMESTONE VALLEY SLOPES

LOCATION AND INTRODUCTION

The Limestone Valley Slopes mark the transition between the low, flat and predominantly pastoral landscapes of the Nene floodplain and the varied and more elevated landscapes that are to the east and west, principally comprising the Wooded Limestone Hills and Valleys, the Wooded Clay Plateau, Undulating Claylands and the Farmed Claylands. Limestone and mudstone geology predominates although is present in varying amounts on the valley sides.

The Limestone Valley Slopes border the Nene to the east of Northampton and extend northwards to the county boundary at Elton to the east of the Nene, and Nassington to the west. The Limestone Valley Slopes also encompass tributary valleys, the most prominent of which is the Harper's Brook valley, which joins the Nene to the north of Islip, together with other minor tributaries that enter the main river channel at Oundle, Cotterstock and Perio Mill.

The valleys slopes are relatively well settled, with numerous linear villages occupying sheltered positions. A number of larger settlements are also present, overlooking the Nene and often extending onto neighbouring landscape types. These are classified as 'Urban' in the landscape character assessment.

PHYSICAL INFLUENCES

Geology and Soils

The Nene, and its tributary Harper's Brook, have both carved gentle valley sides along which a succession of Jurassic rocks have been exposed. The youngest rocks, comprising the Oxford Clay Formation and Kellaways Beds, occupy the upper section of the Nene Valley, followed by the progressively older Cornbrash, Blisworth Clay Formation and the Blisworth Limestone Formation, which forms a notable linear outcrop along the middle slopes of the Nene Valley. To the north, where the Nene has cut deeper into the underlying bedrock, Rutland Formation and Grantham Formation rocks have been exposed although these are often cloaked in river terrace gravels. Drift deposits are not characteristic, however, tending to be present on the plateau landscapes above the valley slopes and along the floodplain of the Nene. Despite this, a narrow band of glacial till may be observed on the upper slopes of the valley sides where they border the Wooded Clay Plateau, Undulating Claylands and Farmed Claylands landscape character types.

Soils across the landscape type vary, and whilst a number of character areas offer simple soil coverage, others display a much more complex range of soil types. Soils within the most southerly character area are particularly variable. The area supports well drained calcareous clayey and fine loamy soils over limestone, which in places are shallow and brashy. Other soil types comprise slowly permeable, seasonally waterlogged fine loamy over clayey; fine silty over clayey and clayey soils, fine loamy over clayey and clayey soils with slowly permeable subsoils and slight seasonal waterlogging, and well drained brashy fine and coarse loamy ferruginous soils over ironstone. By contrast, the Higham Ferrers to Thrapston Limestone Valley Slopes is overlain entirely by well-drained calcareous clayey and fine loamy soils over limestone, in places shallow and brashy. Moving further north and west towards the Thrapston to Warmington Slopes and Harper's Brook, this dominance of a single soil type gives way to areas of fine loamy over clayey, and clayey soils with slowly permeable subsoils and slight seasonal waterlogging; slowly permeable calcareous clayey soils, and isolated pockets of shallow, well drained brashy calcareous fine loamy soils over limestone. The Aldwinckle to Oundle character area is dominated by well drained calcareous clayey and fine loamy soils over limestone, in places shallow and brashy with smaller areas of slowly permeable, seasonally waterlogged clayey, with similar fine loamy over clayey soils. The most northerly edge of the landscape type has a relatively complex soil coverage, including soils found throughout other areas of the landscape type, as well as areas of stoneless clayey soils, in places calcareous, and variably affected by groundwater; and well drained and in places shallow, fine and coarse loamy soils, locally calcareous, and overlying limestone gravel.

Landform

The valley sides have been carved by the action of the Nene and its tributaries and are typically broad and gentle, rising to a maximum elevation of 100m ASL from the valley floor, which is generally between 10 and 20m ASL. Steeper sections are limited but do exist, most notably marking the break of slope fringing the western limits of the Farmed Claylands, and along the valley of the Harper's Brook. The sloping landform defines the limits of neighbouring plateau landscapes and marks the edge of the extent of the Broad River Valley Floodplain Landscape.

Hydrology

The limestone slopes bordering the Nene are dissected by numerous tributary streams that drain the neighbouring plateau landscapes and lowlands. The Nene itself defines the main axis of the landscape. However, the series of tributary streams that flow at right angles into the main channel have created an undulating landscape along the slopes that fall to the river valley. The impact of the tributaries on local landscape character is limited although the principal tributaries of Harper's Brook and Willow Brook, which flow off the Wooded Clay Plateau and the Wooded Limestone Hills and Valleys, respectively, are significant landscape features. Beyond these main tributaries and to the east of the Nene, tributaries are shorter and rise at the fringes of the valley sides, beyond which watercourses tend to flow eastwards to the River Great Ouse.

12 LIMESTONE VALLEY SLOPES

Streams have been dammed in the vicinity of Castle Ashby to form lakes, which are an important component contributing to local landscape character. There are few other hydrological features of note in the landscape. A small number of ponds are evident, although their impact on local landscape character is limited. Although some appear to be natural others, such as the water bodies to the south of Old Sulehay Forest, appear to have been established in former quarry workings.

Land Use and Land Cover

To the east of the Nene arable farming predominates, with large fields of crops extending off the Undulating Claylands and the intensively farmed Farmed Claylands down the valley sides. Localised variations are evident, however, with small pockets of semi improved and improved pasture on land bordering villages, for example at Wollaston, Grendon, Titchmarsh, Achurch, Barnwell and Armston. To the west of the Nene, land cover patterns are more intricate with linear belts of semi improved and improved pastures on steeper slopes and on land bordering watercourses. Arable land remains the predominant land use, particularly to the north of Oundle, where patterns mirror those on the Limestone Hills and Valleys.

Woodland and Trees

In contrast to landscapes to the west, namely the Wooded Limestone Hills and Valleys, and the Wooded Clay Plateau, the Limestone Valley Slopes contain few sizable or noteworthy areas of woodland, wide areas having been cleared for farmland. The majority of woodlands are located to the north of Thorpe Waterville, and comprise small broadleaved copses and moderately sized mixed plantations. A large area of new planting is also evident to the south of Brackmills Industrial Estate. Woodlands in the landscape are not ancient in origin. The only area of ancient woodland remaining is Siley Coppice, an area of semi natural woodland bordering the road that runs parallel to Lyveden Brook.

Hedgerow trees and small areas of tree planting surrounding farmsteads are important locally as they often represent the only strong vertical elements in these agricultural landscapes. However, many hedgerows are neat, low and well clipped and do not contain trees. Many fields are also large and the landscape therefore retains an open character. Poplar shelterbelts are also a strong visual element, but not frequent in the landscape.

HUMAN INFLUENCES

Buildings and Settlement

The Limestone Valley Slopes are strongly influenced by five of the county's fifteen urban areas. It is likely that these settlements were strategically located at crossing points over the Nene, beyond the maximum extent of the floodplain and expanded up onto the valley slopes as populations grew. This is likely to be the case with Oundle, where the historic core of the town is sited on a sloping spur of land which projects into a meander in the course of the Nene. In recent centuries, housing has been built further up the slope. Northampton has also expanded from its historic core on the Rolling Ironstone Valley Slopes across the Nene where new industrial estates have been established on and bordering the Limestone Valley Slopes.

The wider landscape is relatively well settled with numerous villages and hamlets. To the south of Thrapston east of the Nene, these tend to be compact settlements centred around a junction of two or more roads, as at Bozeat, Wollaston, Irchester, Stanwick, Ringstead and Denford. More typical, however, are linear villages such as Great Houghton, Brigstock and Sudborough in the valley of Harper's Brook. The morphology and orientation of these linear settlements is dictated by landform patterns. For example, Wadenhoe is located on the slopes bordering the main channel of the Nene and is therefore orientated north-south. By contrast, Woodnewton and Southwick fringe tributaries flowing eastwards off the neighbouring hills into the Nene and are therefore orientated east-west.

Heritage Features

There are few visible historic monuments or features evident on the Limestone Valley Slopes. However, areas of ridge and furrow are more common than on the neighbouring Clay Plateau, Wooded Limestone Hills and Broad River Valley Floodplain landscape character types, with particular concentrations around Titchmarsh, Aldwincle and Wadenhoe. Clifford Hill is also an important and imposing site. The Motte marks the site of a once imposing castle and is one of the largest of its type of medieval fortification in England. The cores of a number of villages are also important features of the historic landscape, many containing old stone churches and attractive stone cottages. Perhaps the most striking is at Fotheringhay. Here, the church, village and remains of a once impressive castle dominate the banks overlooking the river at an old bridging point. The church is a particularly striking landscape feature, begun in 1434 as an addition to the now removed chancel and collegiate buildings. It lies adjacent to the castle, the birthplace of Richard III and the site of Mary Queen of Scots' trial and beheading. The castle was demolished in 1635 and its stones were used in the construction of many of the houses in the village.

In the wider landscape a noteworthy heritage feature is the course of a Roman Road. This runs along the lower and middle slopes of the Limestone Valley Sides parallel to the course of the Nene. Between Thrapston and Barnwell its course is marked by the A605. North of Barnwell, the route is preserved as minor roads and footpaths, notably the course of the Nene Way, which follows the route for a short distance.

12 LIMESTONE VALLEY SLOPES

Historic country houses and their landscapes, grounds and gardens also represent an important heritage resource but are not frequent in this landscape character type. Castle Ashby is a notable site, however, and here, Grade I registered gardens contain remnant areas of ridge and furrow. The Park was enclosed soon after Conquest and landscaped from 1761 onwards by Capability Brown. It retains late 17th Century features, a particularly notable feature is a mile long avenue, which extends across the Undulating Claylands onto the Low Wooded Clay Ridge.

Boundaries and Field Patterns

Large, regular and sub regular fields are characteristic of the Limestone Valley Slopes, particularly in areas under arable cultivation. Within the areas surrounding villages, where improved and semi improved pastures are most frequent, a more intricate pattern of small and medium size regular fields is evident.

Field boundaries are generally defined by low, well-trimmed hedgerows. Where arable farming predominates, these are sometimes gappy and show signs of decline. Significant stretches of hedgerow contain few hedgerow trees, which in places are stag headed and showing signs of die back. In the absence of significant woodland this leads to an open character.

Communications and Infrastructure

In order to avoid the seasonally wet floodplain bordering the Nene, direct arterial routes tend to run along the boundary of or along the Limestone Valley Slopes parallel to the main river channel. It is likely that this has been the nature of routes through the landscape for thousands of years. Indeed, the Roman Road from Thrapston to the Roman town of DVROBRIVAE (Water Newton) runs along the Limestone Valley Slopes and parts of its course are now occupied by the A605. To the west of the Nene, minor country roads predominate, although the grain of the landscape dictated by the course of the river is again mirrored in the alignment of roads along the lower and mid slope. On both sides of the river, numerous minor roads run at right angles to the Nene and link villages and the wider landscape beyond the valley to the river. Many of these secondary routes run alongside tributaries, with linear villages bordering them in many instances, further reinforcing the strong grain of the landscape.

Major infrastructure developments are not evident in the landscape although overhead transmission lines are conspicuous in the valley of the Harper's Brook, in the tributary of the Nene that flows through Glapthorn, and in the vicinity of the electricity sub station at Grendon.

Recreation

Brigstock and Irchester Country Parks represent the principal recreational resources in the landscape. Brigstock Country Park (situated on glacial deposits and formerly worked for sand), has been developed to include trails with links to surrounding Fermyn Wood and picnic meadows. Irchester Park has been developed within a former ironstone quarry, and contains an interpretation centre. Fotheringhay church and castle are also popular visitor attractions.

The Nene Way diverts from its course through the Broad River Valley Floodplain at Achurch and traverses the Limestone Valley Slopes northwards to Warmington. In the wider landscape, public rights of way offer a limited network that is generally confined to the periphery of larger villages and towns, and tend to radiate out into surrounding landscape types.

AESTHETIC AND PERCEPTUAL QUALITIES

The landscape is characterised by gently undulating, productive farmland. Land shelves gently to the Nene. From elevated areas, wide views are possible over the landscape to the course of the valley, and beyond into neighbouring landscape types. Here, the landscape is perceived as relatively open and elevated, an absence of woodland and hedgerow trees increasing the frequency of long distance viewing opportunities. By contrast, on the lower slopes of the valley towards the Nene and along stretches of the more significant tributaries to the west of the Nene, views are more limited and a more intimate and human scale character is experienced.

LOCAL DISTINCTIVENESS, LANDSCAPE CONDITION AND LANDSCAPE CHANGE

The landscape marks the transition between the flat riverine landscapes of the Broad River Valley Floodplain and contrasting agricultural and wooded landscapes, comprising the Farmed Claylands, the Wooded Clay Plateau and the Clay Plateau beyond the valley. As a result, the Limestone Valley Slopes display characteristics of each and are distinctive for this reason.

The predominance of arable farming has resulted in the reduced need for well-maintained boundaries and consequently hedgerows are showing signs of decline. In many areas, however, low, neat and well-maintained hedges are in evidence and give the landscape a productive and managed character. The absence of woodlands indicates that widespread clearance for agriculture has taken place, and indeed the proximity to the heart of Rockingham Forest to the west of the Nene suggests that prior to intensive agriculture practices, the landscape would have been more heavily wooded.

The expansion of urban areas in recent years has resulted in the despoiling of some areas of the landscape on the urban fringes of settlements, although the impact is relatively localised. Elsewhere, attractive villages, such as Fotheringhay, have retained their historic character. They make a significant contribution to local landscape character and distinctiveness.

12 LIMESTONE VALLEY SLOPES



Wollaston to Irchester

12a Wollaston to Irchester

The Wollaston to Irchester Character Area extends from Northampton to Rushden. Bordered by the River Nene Broad River Valley Floodplain to the north and Undulating Claylands and Low Wooded Clay Ridge to the south, the character area generally slopes towards the floodplain from more elevated land to the south.

The area is characterised by a predominance of large scale fields of arable cereals and horticulture cloaking the gently undulating landform. Smaller improved pastures with grazing sheep and cattle are frequent, however, around settlements such as Little Houghton, Cogenhoe, Castle Ashby, Grendon, Bozeat and Wollaston. 'Horsiculture' is also frequent in such areas, conspicuous in the landscape through the use of white ribbon temporary fencing. Within many areas of improved pasture, small pockets of calcareous grassland are evident with larger areas of neutral grassland located around Irchester Country Park. Boundaries across the area vary, including low hawthorn hedgerows, both clipped and overgrown, and post and wire fencing. Although overgrown, scrubby hawthorn is evident along boundary lines, but hedgerows trees are infrequent.

Woodland in the character area is relatively varied although, as is typical of the landscape type, it is limited. South of industrial development at Brackmills, significant areas of young tree planting have been established on the north facing slopes with smaller areas of broadleaved woodland located within the central section of the area, including Coney Green Plantation and woodland surrounding Castle Ashby. Mixed woodlands are evident around Castle Ashby, with a significant area at The Firs and Irchester Country Park, with coniferous planting also found around the latter two areas. Although woodland within the character area is limited, woodland in surrounding landscape types of the Undulating Clay Plateau and Low Wooded Clay Ridge forms horizon features and a wooded backdrop to the area.

The character area is reasonably well settled, with a number of villages of varying morphology extending across the undulating landform. Church spires are prominent in a number of the villages, including those found at Irchester, Wollaston, Bozeat, Easton Maudit, Grendon, Whiston and Little Houghton. Beyond the area boundary, east of Wollaston, a water tower also creates a prominent vertical feature. Beyond the villages are isolated farms and dwellings. Minor roads as well as more major routes connect the settlements in the area, of which a number are prominent in views, and also create areas of localised noise intrusion. The A509 and B570 are such examples. Also intrusive in views are high voltage pylons crossing the landscape, extending into the area from the adjacent Nene Valley. The permitted sand and gravel extraction site northwest of Bozeat is notable within the character area. The quarry occupies sloping land to the west of the A509.

12 LIMESTONE VALLEY SLOPES

Heritage features are limited in the area, with Castle Ashby providing the main area of interest. Located within the woodland and mature parkland setting is an Elizabethan/Jacobean house with a serpentine park and Victorian garden. The park, designed by Capability Brown after 1761, contains a ha-ha and a series of ponds. In the 1860s, a terrace garden was made and the old kitchen garden was transformed into an elaborate Italian garden with parterres. The Grade I listed park and garden occupies a significant area with a tree avenue extending southwards into the surrounding landscape types. Isolated fields of ridge and furrow can be found along the northern slopes of the character area. Also located along the northern edge are the outer limits of Chester House, a Scheduled Ancient Monument. Avenues of trees are also an important element of the landscape and extend southwards from the core of the gardens onto Yardley Chase.

There is evidence of former quarrying activity within the character area, with remnants of quarries in infilled and restored ground to the south of the Gypsy Lane (B570), west of Irchester and north of Wollaston. The former ironstone quarry that is now occupied by Irchester Country Park is of particular note. Located on the northern section of the character area, it provides the main recreational opportunity. The 200 acres of woodland and meadow within the Country Park are accessible to the public through a network of footpaths, with parking and picnic facilities available. The woodland comprises larch, Scots pine, oak, ash, cherry, hazel and beech. A number of rights away criss cross the landscape, with stretches of the Nene Way extending into the area from the surrounding Broad River Valley Floodplain.



View to Raunds

12b Higham Ferrers to Thrapston

Extending from Higham Ferrers to Thrapston, this area of the Limestone Valley Slopes is the most southern of the sequence of character areas. It is bordered by the River Nene Broad River Valley Floodplain to the west, and Chelveston and Caldecott Farmed Claylands to the east. The area rises gently from the broad, flat floodplain of the River Nene to the surrounding Farmed Claylands.

The Higham Ferrers to Thrapston Character Area is characterised by a predominance of arable cereals interspersed with fields of arable horticulture, generally large, and medium to large in size, and regular in shape, emphasising the subtle undulations of the area. Small pockets of improved pastures and calcareous grassland are evident, however, around settlements, including Denford, Ringstead, Stanwick, the northeastern edge of Higham Ferrers, and on the western edge of the character area adjacent to the site of the medieval village of Mallows Cotton. Fields in close proximity to settlements are also generally smaller in size.

As is typical of the type, woodland cover is limited to scattered broadleaved copses and areas of young tree planting in the northern section of the character area, north of Denford, and scattered hedgerow trees, including ash and stag headed ash. Distant views towards scattered woodlands within the Farmed Claylands create a greater sense of cover, however, despite the overall lack of woodland.

12 LIMESTONE VALLEY SLOPES

The landscape is relatively well settled, with the village of Stanwick descending the slopes, and Ringstead and Denford villages located immediately adjacent to the floodplain. The village of Stanwick, although set back from the River Nene, is located along a small tributary flowing into the main river. The villages are compact having developed around a church, central to each of the villages. Stanwick is the largest of the settlements having developed up the valley slopes, in a predominantly west and east direction; Denford, smaller in size, has developed below the valley slopes, adjacent to the river. Beyond the villages lies a rural landscape of scattered farms and dwellings set back from the roadside. Silage bales stacked adjacent to farms and outbuildings can frequently be seen within the landscape. The urban centres of Higham Ferrers, Raunds and Thrapston also border the character area, resulting in a strong urban influence in places. Pylons passing through the area, along with noise intrusion from the A45(T), contribute further to urbanising elements within the landscape.



Thrapston to Warmington

12c Thrapston to Warmington

Stretching from Thrapston to Warmington on the edge of the county boundary, the Thrapston to Warmington Character Area comprises the largest section of Limestone Valley Slopes in Northamptonshire. Draining the valley slopes and surrounding lowland landscapes to the east are numerous small watercourses flowing into the River Nene, the most significant of which is Branwell Brook. These have resulted in a gently undulating landscape that rises from its lowest point at around 20m to around 70m ASL.

Land cover is typically arable farmland, although areas of calcareous grassland are evident around the settlements of Titchmarsh, Barnwell, Achurch, Polebrook, Ashton and Warmington, and also along sections of Branwell Brook. Whilst arable farmland is generally located within large and medium to large-scale fields, in contrast, grassland occurs in small and small to medium scale fields. Sub regular field shapes predominate, although areas of regular shaped fields are scattered along the valley slopes. Field boundaries vary considerably across the character area including well clipped hawthorn hedgerows that in places are thick and low, and others very gappy. In a number of places, arable fields are open to the roadside and deep ditches and grass verges are evident.

Woodland cover in the character area is relatively limited, although larger blocks of mixed woodland occur at Lilford Woods, around the hamlet of Armston and surrounding the remains of Barnwell Castle. Smaller broadleaved copses, although evident, are limited along the slopes and only two coniferous plantations occur at Oak Plantation and The Linches. Linear planting belts occur along the line of dismantled railways and contain both coniferous and deciduous species. Although limited, these small woodland blocks create areas of interest within the landscape along with woodlands in the surrounding Farmed Claylands and Wooded Clay Plateau, which create horizon features in a number of views. Trees are scattered along hedgerows and adjacent to watercourses, predominantly of oak and ash and of varying age.

12 LIMESTONE VALLEY SLOPES

Linear villages that have developed along the line of, or within close proximity to watercourses, predominate within the character area, including Titchmarsh, Polopit, Barnwell and Polebrook. The village of Warmington, and the smaller Thorpe Waterville on the western edge of the character area, both have a compact form. They have developed at the intersection of the major valley through route, the A605, and minor interconnecting rural roads. The linear form of Ashton village is distinctive, containing dwellings constructed from stone and thatch, all with similar detailing and rendering. Beyond this lies a landscape settled with scattered farmsteads and individual dwellings. Although larger urban centres lie adjacent to, and are visible from the character area, urbanising elements within the area are limited to industrial units east of Thrapston and Soilmec, a drilling and foundation equipment supply company west of Polebrook, and prominent in the landscape as a result of the tall, vertical drilling machines. The presence of the A605 through the centre of the character area is a local source of noise intrusion.

Features of historic importance vary throughout the character area, the most significant being the Grade II listed Barnwell Manor. The gardens comprise earthwork remains of a formal garden attached to the former late medieval manor house. The Duke and Duchess of Gloucester reside in the house today and open the gardens to the public two or three times a year. The ruins of the medieval fortress, Barnwell Castle is located within the grounds. Other features of interest include Lilford Hall and Polebrook Hall. Two Roman Roads are evident in the area, comprising the A605, and a Roman Road east of Titchmarsh. Scattered fields of ridge and furrow can also be identified along the valley slopes. Landmarks are infrequent, though views towards the transmitting station on Morborne Hill, beyond the county boundary are possible.



View to Lowick

12d Harper's Brook

The Harper's Brook Character Area is the most westerly of the Limestone Valley Slopes, extending from Islip to Stanion. Central to the character area is Harper's Brook, a tributary draining into the River Nene, creating a shallow valley landscape.

Characterising the area is a general predominance of arable farmland, although significant areas of calcareous grassland and pockets of improved pasture are evident surrounding the settlements of Sudborough, Brigstock and Stanion and on lower slopes, adjacent to the watercourse. Field sizes vary considerably, with fields adjacent to the brook ranging from small through to medium and large. The majority of fields are sub regular in shape.

Typical of the landscape type, woodland cover is limited, although a number of well treed boundaries, areas of tree cover adjacent to Harper's Brook, and woodland on the surrounding Wooded Clay Plateau combine to create the sense of a reasonably well wooded landscape. Woodland within the character area includes small, broadleaved copses, the largest of which is Cat's Head Wood, an ancient woodland on the eastern boundary.

12 LIMESTONE VALLEY SLOPES

The valley is reasonably well settled, with the villages of Lowick, Sudborough and Brigstock occupying the lower valley slopes, and in places surrounding watercourses. In the village of Lowick the stone built dwellings, with thatch and slate roofs, have developed around the junction of two roads, whilst Sudborough, although constructed from similar materials, and also including red brick and tile, has developed in a linear form adjacent to the Brook. Brigstock, the largest of the three settlements, occupies the valley slopes either side of Harper's Brook. It is a bilinear village, and again includes stone built dwellings. Beyond the villages lie isolated farmsteads and dwellings, often accessed via minor tracks. Whilst minor roads lie central to each of the villages, they are connected by the A6116 that follows the line of the valley, occupying both the upper slopes and lower valley sides.

Whilst rights of way are relatively limited in the valley, Brigstock Country Park provides a valuable recreational resource. The Country Park occupies a former sand quarry, the spoil heaps and excavations having resulted in a locally undulating landscape. Located adjacent to Fermyn Woods, the park is characterised by grassland and dense scrub with habitats including ditches, streams and ponds. Picnic meadows, walks and nature trails, a circular walk linking with Fermyn Wood, a visitor centre, ranger service and parking facilities are all available within the Park.



Wadenoe Church and castle site



Pilton Church and Manor House

12e Aldwinckle to Oundle

The Aldwinckle to Oundle Character Area stretches northeastwards from Aldwinckle to Oundle, and is surrounded by the River Nene Broad River Valley Floodplain to the east and Rockingham Wooded Clay Plateau to the west. Defining the area are a number of tributaries draining into the Nene, though these are frequently evident as dry streams within the landscape.

Land cover is typically arable farmland, although improved and calcareous pastures are dominant around Aldwinckle, Wadenhoe, Pilton, Stoke Doyle and west of Oundle, surrounding Oundle Golf Club. Field sizes vary on the valley slopes, although generally the fields that are under arable cultivation are larger, whilst pastoral fields are smaller in scale.

Woodland cover in the character area is low, comprising small scattered copses of broadleaved and mixed composition with limited areas of young trees. Silley Coppice is the only ancient woodland within the area. Scattered mature hedgerow trees also contribute to tree cover. The close proximity of large woodland blocks in the surrounding Wooded Clay Plateau, however, create the sense of a well wooded character and enclose the character area.

The character area is relatively well settled, including a number of villages located on the lower and mid slopes of the valley sides overlooking the River Nene. Aldwinckle, the most southern settlement, is a linear village that by medieval times was a thriving community. Dwellings in the village are constructed from stone and red brick, with stone predominating in the centre of the village and more modern brick dwellings on the periphery. In the centre of the village, the church spire provides a prominent focal point. Located further north along the valley slopes is the village of Wadenhoe. This compact village developed around a road junction is largely constructed from a silvery cream limestone, and in places, detailing on dwellings includes rich, orangey stone and intricate patterning on fascias. The village is thought to date back to Saxon times.

12 LIMESTONE VALLEY SLOPES

Wadenhoe House, on the eastern edge of the village, is a Jacobean manor house set within seven acres of landscaped grounds. In the centre of the area is Pilton village, a small compact settlement, although it contains a church and manor house. Stoke Doyle, the most northern village in the character area is a compact settlement that has developed around the junction of two roads. The church spire again provides a prominent feature. Beyond the villages, the landscape is settled with isolated farmsteads and dwellings, confined generally to the land extending from the northwestern corner.



Oundle to Nassington

12f Oundle to Nassington

This section of the Limestone Valley Slopes is the most northerly of the character areas. Located adjacent to the River Nene Broad River Valley Floodplain, the Oundle to Nassington Character Area extends fingers of land westerly into the surrounding Wooded Clay Plateau. The narrow extensions of gently sloping land are drained by tributaries feeding into the River Nene, including Willow Brook that enters the character area south of Woodnewton before entering the Nene around Fotheringhay.

Land cover is predominantly arable cereals and horticulture with scattered fields of improved pastures and calcareous grassland, largely concentrated around village settlements and on the lower valley slopes adjacent to watercourses. Field sizes vary throughout the area, although to the east of Woodnewton they are generally larger in size. Whilst the majority of fields have a sub regular shape, small pockets of regular fields are evident, in particular between Cotterstock and Glaphorn and east of Woodnewton. Woodland cover is extremely limited, with small copses and tree planting generally associated with watercourses and farmsteads, including prominent poplar lines, pine and oak species in close proximity to farmhouses. Despite the lack of woodland within the character area, extensive woodland blocks in the surrounding Wooded Clay Plateau landscape type create a greater sense of woodland cover and often contain views to the west within the valley slopes. However, views are more extensive towards the Farmed Claylands.

Small village settlements within the character area are closely associated with watercourses, and frequently located on the lower valley slopes adjacent to streams. The majority of villages take on a linear form, including Fotheringhay, Southwick and Cotterstock. Woodnewton, by contrast, has developed around a main circular route through the village and Glaphorn, although likely to have originated as a linear village, has now extended along surrounding roads. The landscape is sparsely settled beyond the villages, with isolated farmsteads and dwellings, frequently located at the end of minor tracks running at right angles to the main arterial route.

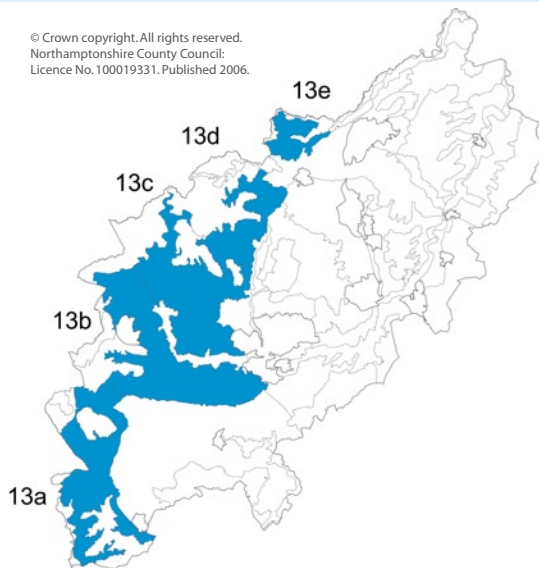
Recreational opportunities are limited in the character area with only a few public rights of way crossing the valley slopes. The Nene Way National Trail is notable, however, and provides access across the most northern valley slopes from Nassington to Fotheringhay. Southwick Hall, a 14th Century manor house located on the eastern edge of Southwick village is also open to the public. The Hall grounds, also open for public viewing, contain a number of large horse chestnut and sycamore trees and a Persian Ironwood and large birch.

There are few landmarks, although the transmitting station on Morborne Hill is prominent in views, along with a water pump south of Nassington. Elton church spire is also a notable local feature.

13 UNDULATING HILLS AND VALLEYS

CHARACTER AREAS

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



Undulating Hills and Valleys

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.**

13 UNDULATING HILLS AND VALLEYS

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 Guilsborough 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.

13 UNDULATING HILLS AND VALLEYS

Man made reservoirs and lakes are also conspicuous, although widely spaced across this expansive undulating landscape. Reservoirs at Hollowell, Ravensthorpe, 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.

Land Use and Land Cover

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.

Woodland and Trees

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.

HUMAN INFLUENCES

Buildings and Settlement

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.

Heritage Features

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.

13 UNDULATING HILLS AND VALLEYS

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.

13 UNDULATING HILLS AND VALLEYS

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.

13 UNDULATING HILLS AND VALLEYS



Small fields, intimate character



Marston St Lawrence

13a Middleton Cheney and Woodford Halse

The Middleton Cheney and Woodford Halse Character Area extends from Charwelton on the western edge of Northamptonshire to the southern county boundary. A number of prominent hills are located within the undulating landscape, including Hinton Hill and Thenford Hill, and creating height and a sense of elevation within the landscape. Although broad, sweeping undulations are evident, in areas the undulations become more frequent and narrow, for example around Culworth, resulting in a more intimate character. Whilst views are expansive from more elevated areas of land, landform and vegetation confines views in places. Watercourses located along many undulations are visible in the landscape as lines of vegetation and are often mistaken as boundary lines.

The area is characterised by a combination of both arable and pastoral farmland often grazed by sheep, with pasture predominating around settlement, and also frequently occurring on both steeper slopes, and gentle slopes adjacent to watercourses. 'Horsiculture' is also frequent around settlements. The resultant landscape has a diverse and colourful character. Small, predominantly broadleaved woodlands are relatively sparsely scattered throughout the area with limited areas of young tree planting. Whilst woodlands occur along the course of streams, they are also evident on sloping valley sides, and combine in places to create a reasonably well wooded character and provide texture to the otherwise smooth and undulating agricultural landscape. Hedgerow trees are frequent in a number of places resulting in occasional well treed boundaries. Central to the character area, north of Thorpe Mandeville, is a dismantled railway that is well treed, with species including oak, ash and willow.

The landscape is relatively well settled with a number of significantly sized settlements, including Byfield, Hinton and Middleton Cheney and a number of large villages such as King's Sutton and Woodford Halse. Prominent urbanising features within the area include an industrial site south of Aston le Walls and larger industrial units on the edge of larger settlements, such as those found around Hinton and Woodford Halse. Beyond this, large sections of the character area remain sparsely settled with scattered farmsteads and isolated dwellings, frequently set back from the roadside. Prominent church spires are located within many villages, including those at Middleton Cheney and Marston. Additional landmark features include the telecommunication masts at Thenford Hill, and north of Hinton, and a water tower, also north of Hinton.

Recreational facilities are limited in the area, including public rights of way scattered across the landscape, and the Jurassic Way footpath. South of Thenford is Farthinghoe Nature Reserve. The site includes a former landfill site that has been capped, and is now a mosaic of woodland and open grass with an old meadow once used as a stock-pen for animals going to Banbury market. A pond is located at the eastern end of the reserve, constructed in 1988.

Areas of heritage interest in the character area include occasional fields of ridge and furrow with a more significant concentration between Middleton Cheney and Greatworth, and around Byfield and Hinton. Three sites of medieval villages are evident, including the villages of Charwelton, Appleton and Trafford. Edgecote, located close to the Oxfordshire border, is also the site of a major battle of the Wars of the Roses. Here, in 1469, Edward IV rallied an army to put down an uprising in Yorkshire, but was intercepted by a Lancastrian force and swiftly defeated.

13 UNDULATING HILLS AND VALLEYS



View from Badby to Rugby radio station



View into River Nene stream valley

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.

13 UNDULATING HILLS AND VALLEYS

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.

13 UNDULATING HILLS AND VALLEYS



View from Great Brington

13c Long Buckby

Located northwest of Northampton, the Long Buckby Character Area stretches from the northwestern boundary around Downtown Hills to the northern edge of the River Nene Broad River Valley Floodplain. Although a largely regular undulating landscape predominates, the landscape is more elevated to the north and falls towards the floodplain of the River Nene in the south. Around West Haddon, land reaches a height of 188m ASL forming a prominent ridge dividing land forming the catchment of the Brampton Valley to the east and tributaries feeding into the River Cherwell catchment to the west. East of the ridge, below the Guilsborough Ironstone Uplands, the undulating landform is more pronounced, accentuating the Undulating Hills and Valleys landform.

A combination of arable farmland and improved pastures grazed by both sheep and cattle characterises the landscape. Pastures predominate around settlements, and on steeper landform, including land between Long Buckby and East Haddon, on Glassthorpe Hill, which also forms a Ministry of Defence (MoD) Danger Area, and at country houses such as Althorp House. Although field sizes vary considerably across the area, larger fields are generally under arable cultivation. Woodland cover is relatively limited within the character area and confined mainly to broadleaved copses. A number of copses are distinctive, however, capping small hills within the character area. Such examples are apparent on both Thornburrow and Gawburrow Hills. Coniferous woodlands are evident in a number of areas, along the northern edge of Althorp House, around Brockhall Park, and around the MoD Danger Area. The ancient woodland of Nobottle Wood provides the most significant woodland in the area and is mainly of a broadleaved composition with small areas of mixed and felled woodland. Although woodland is generally limited, well treed stream courses, lined with oak, ash, willow and alder, and mature hedgerow trees of oak and ash contribute to the overall tree cover.

The landscape is reasonably well settled, including the larger settlement of Long Buckby, and smaller settlements such as Crick, the southern edge of West Haddon, East Haddon, Ravensthorpe and Harpole. Small villages are also scattered across the undulating landscape, including Whilton, Great Brington and Little Brington. Distant views are possible towards the outer edges of Northampton. Between villages are a number of scattered farmsteads and dwellings, frequently located at the end of minor tracks and on the mid slope. Connecting settlements is a relatively extensive network of minor roads, along with the influence of major roads such as the A428 and M1 motorway, from which some noise intrusion is evident. The main line railway cutting through the area is also intrusive in a number of views despite the presence of screening vegetation. Other prominent features that often contribute urbanising elements into the landscape include high voltage pylon lines and telecommunication masts east of Long Buckby.

13 UNDULATING HILLS AND VALLEYS

Country houses of historic interest are characteristic of the area and often viewed from a distance as well wooded areas in the landscape. Althorp House and Park, listed Grade I is located on the eastern boundary and includes a late 18th Century house set within a landscaped park with traces of an earlier formal layout and later gardens. The park dates from 1512, although it has since been extended, with date stones recording planting between 1567 and 1901. Traces of avenues are also evident and are ascribed to Le Notre. In recent years, the house and gardens have become increasingly well known, providing the final resting place for Diana, Princess of Wales. Located north of Althorp is Holdenby House and gardens, Listed Grade II* on the register of historic parks and gardens and occupying around 250 hectares. Earthwork remains are evident of earlier formal gardens and a deer park laid out between 1579 and 1587. A falconry centre is also located at the house. To the east of the character area, adjacent to the River Nene, is Brockhall Park. The landscaped park was developed around 1800 and laid out to replace formal gardens developed in the 1720s. Also of interest in the area are remnants of the industrial revolution, the most notable being the Grand Union Canal. On the western edge of the character area, the canal passes through the Crick Tunnel. Constructed in 1815, the tunnel was built to allow two boats to pass without touching the sides. Running for a length of 1,518 yards, the tunnel is visible by a series of mounds in the landscape, although a number have been planted with trees. Located on the northeastern area boundary, Ravensthorpe Reservoir is a notable landscape feature. This is the oldest reservoir in the county, having 'appeared' in 1890, and covers an area of 46 hectares. The reservoir is one of the oldest water treatment plants in the region and is also a valuable habitat for many wintering birds and summer breeding birds, as well as providing an important local recreational resource. Fishing is also available on the reservoir. Other recreational facilities include numerous minor rights of way and sections of the Macmillan Way, Midshires Way and Jurassic Way.



Arthingworth

13d Cottesbrooke and Arthingworth

The Cottesbrooke and Arthingworth Character Area, located to the north of Northampton, is drained by a number of tributaries along the base of undulations flowing into the Brampton Valley from the southern section of the character area, and the River Ise from the northern section, north of Maidwell.

Land cover in the area is a combination of both arable cereals horticulture and improved pastures. Land under arable cultivation predominates in the southern section of the character with improved pastures concentrated around the settlement and parkland landscape of Cottesbrooke Hall, and around Haselbech and Maidwell. A significant area of setaside land is evident around Haselbech Hill. Although arable and pastoral farmland occur in roughly equal proportions in the northern section of the area, and again generally surround settled areas, there is a greater concentration of fields under pastoral use with areas of calcareous grassland around Arthingworth.

13 UNDULATING HILLS AND VALLEYS

Woodland in the character area is more extensive than in other areas of the Undulating Hills and Valleys landscape type. Broadleaved copses predominate with significant concentrations around Cottesbrooke Park, and although small in size, they combine to create a well wooded area. Broadleaved woodlands are also found around Haselbech, including Purser's Hill and other hilltop locations north of Cottesbrooke, around Kelmarsh, Far Hill and Warren Hill, northeast of Kelmarsh. Despite many copses having a geometric form, a number are more organic and often seen capping hill tops within the area, including Rickleboro Hill Spinney and Cott Hill Spinney. Dale Wood, a significant linear broadleaved woodland, is also evident along the course of the stream in Maidwell Dale. Smaller areas of mixed and coniferous composition are evident across the landscape, with the latter predominating around Hollowell Reservoir.

Although moderately settled, villages in the character area are sparser and generally on a smaller scale compared to other areas of the Undulating Hills and Valleys. Clipston, Arthingworth, Kelmarsh, Maidwell, Cottesbrooke and the outer edges of Harrington and Haselbech form the main villages in the area. In general, they have a linear form. Clipston, however, has a nucleated core from which development has extended along minor roads leading from the village centre. Beyond this lies a rural landscape of isolated farms and dwellings. Although there are no significant settlements within or adjacent to the area, glimpsed views of Desborough are possible from elevated parts of the landform. A network of minor roads connect settlement within the area with only limited stretches of the A14(T), A508 and A5199. Large areas remain inaccessible, however, even on foot. In other areas, rights of way cross the undulating landscape including the Brampton Valley Way, Midshires Way, Macmillan Way and a section of the Jurassic Way. Both the Brampton Valley Way and Midshires Way run along the course of a former railway line.

Features of heritage interest are numerous in the character area. Cottesbrooke Hall and Park, located close to the southern boundary of the character area, includes formal gardens with traces of early formal layout set within a landscaped park. The gardens were laid out in the early 18th Century, although altered in the late 18th Century and again in the 1930s, and are now Grade II listed. Leading to the hall from surrounding areas are tree lined roads bordered by large arable fields and a parkland landscape of mature parkland trees. The site of a Manor House at Harrington is located on the eastern boundary. Here, the remains of an early formal garden can be found, extending to the south and east of the manor house. The garden is thought to date from the late 16th or 17th Century and is Grade II* listed. Other features of value include Kelmarsh Hall, a Palladian house built around 1728 and surrounded by landscaped gardens, grazed parkland and a working estate of around 3,500 acres. Hollowell Reservoir is also of note. Occupying almost an entire valley on the southwestern edge of the character area, the reservoir covers an area of around 53 hectares. It provides a valuable habitat for a number of duck and wildfowl species and is also favourable for coarse fishing and is home to a local sailing club.

13 UNDULATING HILLS AND VALLEYS



View to Brampton Ridge and Brixworth Church

13e Stoke Albany and Ashley

The Stoke Albany and Ashley Character Area is the smallest, and also one of the most northern character areas within the county. It is located to the east of Market Harborough. South of the area lies the Wooded Clay Plateau, with the floodplain of the River Welland to the north, west and east, and a tributary stream extending into the centre of the area. A number of springs along with several tributary streams are evident in the character area, all flowing into the Broad River Valley Floodplain of the River Welland. The undulating landform of the hills and valleys allows expansive views from hill top locations over the Welland valley, and towards the northern edge of Northampton.

Land cover over the rolling landscape is a combination of both arable cereals and horticulture and improved pastures, grazed by sheep and cattle with the latter concentrated around settlements and on steeper landform. Small pockets of neutral grassland are also evident on the western edge of Stoke Albany. Fields under arable production are frequently larger in size and grazed pastures range from small to large scale fields, with the majority having a sub regular shape. Hedgerow boundaries emphasise the rolling undulating landform. Woodland in the character area is limited to isolated broadleaved copses confined to the southern section of the area with mixed woodland evident in Dingley Warren. Areas of young tree planting are located on the golf course west of Stoke Albany with a small area northeast of Dingley. Hedgerow oak and ash are scattered along boundary lines, in particular on lower slopes, and the line of watercourses are frequently well treed. Although woodland within the character area is limited, woodland in the surrounding Wooded Clay Plateau creates a greater sense of tree cover.

The landscape, in places, is well settled, whilst other areas remain rural with only isolated farms and dwellings. A number of areas also remain undeveloped, including land southeast of Ashley. Extending along the mid and upper slopes, the villages of Sutton Bassett, Brampton Ash, Stoke Albany, East Carlton, Wilbarton and Ashley have developed in a linear form, although the latter two have also grown widthways. In contrast, Dingley and Weston by Welland have developed along a number of road junctions. Limited minor roads cross the Stoke Albany and Ashley Undulating Hills and Valleys, generally in a north-south direction and are visible rising up the sloping landform. Only one major road is located in the area, the A427, which crosses the landscape from west to east. Rights of way across the area are slightly more extensive, however, including the Midshires and Macmillan Way and the Jurassic Way along the southern boundary.

Beyond the footpath network, recreational opportunities are confined to the golf course west of Stoke Albany and East Carlton Countryside Park. Located on the edge of the Welland Valley, the Countryside Park covers an area of around 40 hectares and includes a footpath network through woodlands and grassland. A heritage centre, housed in a converted coach house and stables, is located within the site together with craft workshops and play facilities. East Carlton Hall, built in 1863 on the site of the previous hall can also be viewed from the Park.

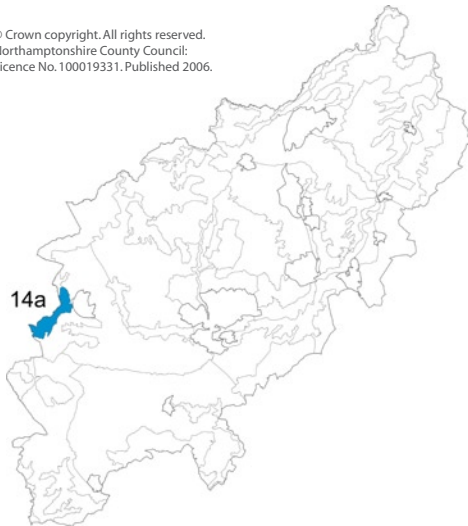
Landmarks are limited in the area, including church spires at Dingley, Ashley, Brampton Ash, and Cottingham church spire beyond the area boundary, and a telecommunication mast on the hill top north of Dingley Wood. High voltage pylons crossing the landscape are also prominent in many views descending the valley slopes, and on the horizon.

14 ROLLING AGRICULTURAL LOWLANDS

CHARACTER AREAS

14a Newbold Grounds

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Rolling Agricultural Lowlands

KEY CHARACTERISTICS

- **Rolling agricultural landscape subtly rising from the north to the south and drained by the River Leam and its tributaries;**
- **the dendritic system of watercourses has dissected the area to create a series of small interconnected valleys;**
- **open views into the surrounding countryside and adjacent county are possible from more elevated areas;**
- **Lias Group mudstone geology predominates with bands of limestone marking areas of elevated land to the southeast and silty mudstone on low rounded hills.**
- **drift deposits limited to isolated areas of glacial till in the north and alluvium along watercourses;**
- **productive arable farmland in medium and large scale fields predominate although sheep and cattle pastures also evident to the south, often associated with watercourses;**
- **fields enclosed mainly by hedgerows of varying condition, frequently reinforced with post and wire fencing, often reinforcing the effect of the rolling landform;**
- **woodland cover is very limited, with tree cover associated mainly with boundary lines and watercourses;**
- **settlement very limited across the landscape which typically consists of occasional isolated farmsteads and individual dwellings;**
- **a generally inaccessible landscape with limited minor country lanes and small stretches of 'A' roads;**
- **limited infrastructure elements present within the landscape, although distant views of telecommunication masts are apparent; and**
- **a quiet, simple, rural landscape despite the close proximity of urban areas.**

14 ROLLING AGRICULTURAL LOWLANDS

LOCATION AND INTRODUCTION

The Rolling Agricultural Lowlands landscape type comprises a discrete area of agricultural land on the western edge of the county, west of Daventry, which extends a short distance beyond the county boundary to include Bush Hill and Beacon Hill. It is bordered to the south and east by the Ironstone Hills and Undulating Hills and Valleys and to the north and northwest by the Broad Unwooded Vale. At the county scale of assessment, only one area within Northamptonshire has been identified as Rolling Agricultural Lowlands. This landscape type is represented as a single character area: Newbold Grounds. The descriptions below therefore apply to the character area as well as the landscape character type.

PHYSICAL INFLUENCES

Geology and Soils

The underlying geology is predominantly Lias Group Charmouth Mudstone, echoing the extensive deposits of these soft rocks that extend across much of the lowland vale landscapes of Warwickshire and Leicestershire to the north and west. In the northeast of the area above the 130m contour the Dyrham Siltstone Formation mark the transition into the Undulating Hills and Valley landscape character type. In the east of the landscape and extending through the undulating landscape that surrounds Beacon Hill in neighbouring Warwickshire, narrow bands of limestone within the Charmouth Mudstone Formation are evident. Small areas of Dyrham Siltstone Formation comprising silty mudstone are also conspicuous forming isolated, low rounded hills. Only one is present in the county, with more prominent examples occurring to the west at Beacon Hill and Bush Hill.

Drift geology across the landscape is limited to isolated areas of glacial till (diamicton) dating to the Quaternary period. The deposits extend eastwards over the Undulating Hills and Valleys landscape character type where they cloak the underlying geology. Linear belts of alluvial sands, clays and gravels are also evident marking the course of the narrow winding brook that issues into the River Leam to the northwest of Newbold Grounds.

Within the Rolling Agricultural Lowlands a fine loamy over clayey and clayey soils dominates the soil pattern, together with slowly permeable subsoils and slight seasonal waterlogging. Also evident across the northern section is a combination of slowly permeable seasonally waterlogged clayey soil, with similar fine loamy over clayey soils, and slowly permeable seasonally waterlogged clayey and fine loamy over clayey soils. To the south and on the western fringe are small pockets of slowly permeable seasonally waterlogged fine loamy over clayey, fine silty over clayey, and clayey soils.

Landform

The Rolling Agricultural Lowlands is a gently rolling landscape ranging in height from 162m ASL on the highest of hills to the east of Staverton to 90m ASL along the line of the River Leam and its tributaries. The more elevated character on the hill tops of the rolling landscape allows open panoramic views across the county boundary into Warwickshire. Below the elevated areas, views are limited due to the rolling valley landform.

Hydrology

The River Leam, or perhaps more importantly its tributaries, are the prominent hydrological influences on the landscape. These form a dendritic pattern and have eroded the principal valley slopes to form a rolling landscape that shelves towards the main channel of the River Leam. Tributary streams, as well as originating within the landscape also flow from surrounding landscape types. Within the southern section of the Rolling Agricultural Lowlands watercourses rise on the neighbouring Ironstone Hills and beyond the county boundary to the southwest and flow through the landscape creating a series of small valleys before joining the main valley of the River Leam in the centre of the area. To the north, however, streams originate on the upper slopes on the eastern edge of the Rolling Agricultural Lowlands, again creating a series of small valleys before joining the Leam on the western boundary of the landscape type on the edge of the county boundary. Watercourses are frequently evident in the landscape by their wooded course, including species of oak, ash and willow.

Land Use and Land Cover

Fields under arable cultivation predominate within this landscape type and are dominant in views. Arable production comprises both arable cereals and arable horticulture frequently in large and medium to large scale fields, with only limited fields that are small in scale. Surrounding a number of arable fields are wide setaside buffer strips. In contrast, the southern limit of the character area southwest of Lower Catesby is dominated by fields of improved pasture with both grazing cattle and sheep. Within this area, small pastures of calcareous grassland are also closely associated with the course of the River Leam. A limited area of improved pastures is also located to the west of Staverton.

Woodland and Trees

Although woodland blocks are limited across the landscape, tree cover associated mainly with boundary lines and watercourses make an important contribution to landscape character. Where small woodland blocks do occur, they are generally broadleaved geometric copses, although their location varies across the landscape. Watercourses, located along the lower areas of the rolling landform are frequently tree lined with mature deciduous species providing significant tree cover and texture in the landscape. Mature deciduous species such as oak and occasional ash located along boundary lines also contribute to overall tree cover. Beyond the county boundary, significant woodland planting on the Shuckburgh Hills provides a well wooded backdrop to the Rolling Agricultural Lowlands creating a greater sense of woodland cover.

14 ROLLING AGRICULTURAL LOWLANDS

HUMAN INFLUENCES

Buildings and Settlement

Settlement is extremely limited within the Rolling Agricultural Lowlands, although the large urban settlement of Daventry is within close proximity, along with village settlements such as Braunston. Visible on the horizon to the east are distant views of industrial units on the western edge of Daventry, reinforcing the close proximity of significant areas of development. The hamlet of Lower Catesby provides the main settlement within the landscape and beyond this are isolated farmsteads and outbuildings and individual dwellings. Farms and dwellings are generally located on lower and mid slopes, and more sheltered areas of land, and by avoiding hill top locations ensure they are absorbed and sheltered in the rural landscape.

Heritage Features

There are few heritage features within the landscape. The remains of the Staverton Viaduct and Catesby Viaduct are notable, although the former is in a poor state of disrepair. Both were built around 1897, forming part of the last Main Line railway line to be constructed; they are now dismantled lines passing through the landscape. West of the dismantled railway lies the site of the medieval village of Newbold and scattered throughout the Rolling Agricultural Lowlands are fields of ridge and furrow.

Boundaries and Field Patterns

Hedgerows typically comprise hawthorn and are low to medium in height, although they vary from being fairly well maintained to more gappy and overgrown. Post and wire fences are evident as a reinforcing feature in both arable and pastoral fields and on occasions provide the only enclosing feature around grazed fields. Where boundaries are particularly scrubby, post and wire fences become more prevalent. The hedges often contain mature and semi mature trees, including species of oak and ash. Watercourse boundaries are also well treed, mainly with oak, ash and willow. The rolling agricultural landscape is emphasised by the pattern of fields, hedgerows and wooded stream courses along the base of undulations.

Communications and Infrastructure

Roads through the Newbold Grounds are limited, including a short stretch of the busy A425 west of Staverton and a section of the A45(T) south of Braunston forming the boundary to the landscape type. Beyond these principal routes, roads are limited to only two quiet winding country lanes north of Staverton and at Lower Catesby, restricting access to the lowland landscape. Passing through the landscape is a section of dismantled railway that continues beyond the county boundary, re-entering in the Broad Unwooded Vale south of Rugby. Although there are no telecommunication masts within the landscape type, there are distant views to masts adjacent to the M1 east of Rugby and to masts in the adjacent Ironstone Hills.

Recreation

Despite the close proximity of large urban areas, recreational facilities are generally limited, with a golf course on the edge of the area north of Staverton, and the outskirts of Hellidon Hill golf course on the southern boundary. Sections of the Jurassic Way long distance footpath pass through the majority of the western edge of the area, from which there are views over sections of Warwickshire. Numerous other minor rights of way connect the Rolling Agricultural Lowlands with the surrounding landscape.

AESTHETIC AND PERCEPTUAL QUALITIES

Despite the close proximity of the urban and industrial areas of Daventry, much of the Rolling Agricultural Lowlands retains a quiet rural character, with many areas being difficult to access. Whilst the landform and land use create a smooth character, watercourses and vegetation create texture and interest in the landscape. In this simple, curved landscape, open views are often possible from higher areas of land. In contrast, where landform and vegetation limit views, a more intimate character is experienced.

LOCAL DISTINCTIVENESS, LANDSCAPE CONDITION AND LANDSCAPE CHANGE

The condition and visual appeal of the landscape varies and is dependent on the influence that urban features have on the area and views of them. In rural areas, the landscape is of moderate scenic quality, although hedgerow decline in some areas indicates a decline in landscape management. Although the Rolling Agricultural Lowlands are likely to be more common in the wider landscape, within the county of Northamptonshire they are limited.

14 ROLLING AGRICULTURAL LOWLANDS



Newbold Grounds

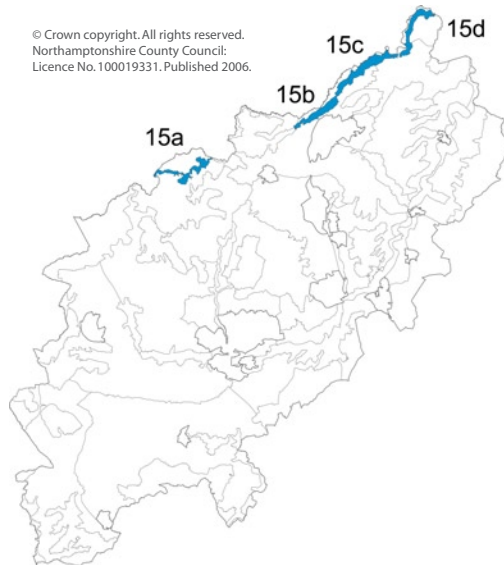
14a Newbold Grounds

The Newbold Grounds Character Area is the only landscape character area associated with the Rolling Agricultural Lowlands landscape character type within the county. The descriptions above therefore apply to this single character area.

15 FARMED SCARP SLOPES

CHARACTER AREAS

- 15a Hothorpe Hills to Great Oxendon
- 15b Cottingham to Harringworth
- 15c Harringworth to Duddington
- 15d Duddington to Easton on the Hill



Farmed Scarp Slopes

KEY CHARACTERISTICS

- **Relatively steep elevated northwest facing scarp slope;**
- **sense of elevation with dramatic panoramic views over the Welland to neighbouring Leicestershire and Rutland;**
- **relief often makes the scarp slopes poorly suited to arable farming although gentler slopes are often cultivated;**
- **limited areas of calcareous and neutral grassland and linear belts of woodland mark particularly steep slopes;**
- **distinct break of slope and steep landform often marks a clear transition with neighbouring upland landscapes;**
- **gentler landform on lower slopes;**
- **limited settlement, generally found on the fringes of the landscape spilling over from neighbouring 'upland' landscapes and extending up from the adjacent lowland vale;**
- **where present, neat hedgerows emphasise landform features;**
- **widespread ridge and furrow evident in areas of permanent pasture; and**
- **castles sited to exploit strategic positions overlooking the vale.**

15 FARMED SCARP SLOPES

LOCATION AND INTRODUCTION

The farmed scarp slopes border the Welland floodplain and Broad Unwooded Vale which themselves mark the county's northwestern boundary between Husbands Bosworth and Tinwell, a distance of approximately 27 km. This linear landscape extends to a maximum width of just 1.3 km, and forms a low but dramatic landscape feature that acts as a backdrop to lowland landscapes bordering the Welland.

The landscape is formed from a range of geological formations ranging from a predominance of limestone in the north to mudstones to the south in the vicinity of Market Harborough. The strong landform feature has formed as a result of riverine erosion by the Welland. It defines the boundary between the elevated landscapes of the Clay Plateau, Wooded Clay Plateau, Ironstone Quarried Plateau and Wooded Limestone Hills and Valleys to the east, and the lowland riverine landscapes bordering the Welland. Whilst a clear break of slope is sometimes evident at the top of the slope, field boundaries rarely run a long it, but instead roll over the crest and blur the transition. The landform is gentler at the foot of the scarp, and the transition between neighbouring types is further blurred by fields occupying both the vale and scarp.

PHYSICAL INFLUENCES

Geology and Soils

Various geological formations are exposed on the scarp slopes. The southern stretch of scarp (the Hothorpe Hills) is comprised of Dyrham Siltstone and Whitby Mudstone Formations. These Lias Group rocks are extensive in the locality and present below extensive drift deposits on the clay plateau to the east, and underlie the lowland vale to the west. To the north, the scarp slopes are increasingly influenced by Oolitic limestones and ironstone, particularly on the upper slopes where these deposits can be seen to extend westwards into the Wooded Limestone Hills and Valleys. Lower slopes mirror the geology of the vale, with softer mudstones forming a gentler scarp.

Drift geology is not widespread and deposits of glacial till tend to be localised and restricted to elevated portions of the scarp fringing the uplands, where they are more extensive.

Soils across the Farmed Scarp Slope vary, but largely comprise a mosaic of slowly permeable, seasonally waterlogged, clayey soils. Small pockets of shallow, well drained brashy calcareous fine loamy soils over limestone are also evident. The most northern of the Farmed Scarp Slopes is characterised by well-drained brashy fine and coarse loamy ferruginous soils over ironstone, with a linear band of slowly permeable seasonally waterlogged clayey soils.

Landform

The scarp represents an abrupt face and rises in a concave profile from the low flat landscapes bordering the Welland. The scarp varies in height from between 180 and 90m ASL in the south, where it fringes the Broad Unwooded Vale and between 120 and 20m ASL in the north where it directly borders the floodplain of the Welland. The steeper portions of the scarp tend to be located at the top of the slope, becoming gentler on the lower slopes where the scarp merges into the lowland landscapes bordering the river. Slope profiles tend to be smooth, particularly where permanent pasture cloaks the hillside. The presence of localised hummocky land, such as that to the south of Gretton, is distinctive and perhaps indicative of slippage.

Hydrology

There are few significant hydrological features along the scarp, with streams tending to flow eastwards off the neighbouring uplands to the Nene catchment. However, a small number of streams flow off the scarp into the Welland. These tend to be narrow brooks, often visible in the landscape as a linear band of trees or vegetation and as a 'dip' in the convex profile of the scarp slope.

Land Use and Land Cover

Land use varies across the scarp slopes, often reflecting local landform conditions. Permanent pasture and woodland tend to be located on the steeper more marginal land with arable farming occupying gentler slopes capable of cultivation. In many instances fields roll over the break of slope from the neighbouring uplands and extend from the neighbouring lowland riverine landscapes, resulting in a blurring of the transition between neighbouring landscape types across the scarp slopes.

Woodland and Trees

Steeper portions of the scarp slopes are cloaked in woodland and from a dark, textural backdrop to views eastwards from the vale. The influence of woodlands on the neighbouring plateau is also important where they line the top of the scarp slopes and increase the perceived height of the scarp, and therefore its visual prominence. Trees and hedgerows are also important, emphasising landform features and creating visual cohesion across the landscape.

15 FARMED SCARP SLOPES

HUMAN INFLUENCES



Rockingham



New Street, Collyweston

Buildings and Settlement

The scarp slopes are thinly settled, with only a small number of villages entirely located within them. Examples include Rockingham, which follows the east-west orientated road up the lower slopes of the escarpment to the west of Corby, and Harringworth, which follows the road that runs along the base of the scarp to the east of the Welland Viaduct. The periphery of a number of other settlements is also evident. These tend principally to be located on the neighbouring 'upland' landscapes, such as Collyweston and Gretton, and spill down onto the slopes.

Only a small number of farms and houses are present beyond these villages, giving wide areas of the landscape a rural agricultural character. Where present, dwellings tend to be roadside dwellings occurring either singly or in a small cluster of two or three dwellings.

Heritage Features

The principal heritage features on the scarp slopes are medieval fortified sites, located on the elevated land to take advantage of strategic points in the landscape that afford wide views over the surrounding vale. The most well known is Rockingham Castle, originally a Norman stronghold strengthened over successive centuries and converted into a comfortable house in the Tudor period. The gardens surrounding the house are registered Grade II*. These represent an early formal garden with later additions and landscape park. The gardens to the west and south of castle were laid out in the 16th Century, with 17th and 19th Century additions. The park was originally established as a deer park in the 13th Century or earlier, and then enlarged in 1485, and landscaped in the 18th Century. A second Norman stronghold on the scarp is the impressive Motte and Bailey to the northeast of Sibbertoft which survives today as earthworks.

Beyond these evocative sites, the landscape represents a relatively rich area of ridge and furrow, its survival here having much to do with the steepness of land precluding intensive and destructive modern agricultural methods, which elsewhere in the county have destroyed this finite resource. As such, much of what remains lies below permanent pastures on steeper stretches of the slopes around villages.

Boundaries and Field Patterns

Field sizes and shapes vary considerably across the landscape, reflecting localised variations in landform. As a rule, larger fields tend to be located on land that is more elevated with gentle gradients rolling over from the neighbouring landscapes and rising up the gentle lower slopes from the riverine landscapes below the scarp. These are principally used for arable cultivation. Small and medium sized fields are also evident, with smaller fields creating intricate patterns on steeper slopes. Fields tend to be either regular or sub regular in shape although a predominance of geometric fields is evident north of Duddington.

Field boundaries are generally defined by hedgerows, although these are in various states of repair. Along some stretches, hedges are low and well clipped; elsewhere they appear dense, of moderate height, and slightly rambling with frequent hedgerow trees. Along some stretches, particularly in areas used for grazing, hedges are gappy and reinforced with post and wire fences. Where hedgerows form a continuous network, they emphasise landform features, divide the face of the scarp into a patchwork of fields, and offer a textural backdrop to foreground views. Where large fields predominate, the unity of land cover, as either permanent pasture or arable farming, creates a simple backdrop to views from neighbouring riverine landscapes. These fields appear to have never been subdivided although in places hedgerow removal and field amalgamation does appear to have taken place.

15 FARMED SCARP SLOPES

Communications and Infrastructure

Communication routes tend to comprise narrow country lanes linking villages in the riverine landscapes to the west, to those to the east of the scarp. The orientation of these routes varies. In many instances, routes take a direct route up the slope, as is the case between Theddingworth and Sibbertoft. These are sometimes steep and enclosed by tall hedgerows. Elsewhere, however, the road runs at the base of the scarp, defining its lower limit, as is the case between Wakerly and Duddington. Routes also run along the top of the scarp, for example the A43 south of Collyweston. They also follow the gentle gradients on the mid slope, as occurs between Haringworth and Wakerly, from where fine views over the Welland are possible to the surrounding countryside, and to the Welland Viaduct.

Whilst not characteristic of the scarp as a whole, the railway line is a prominent feature of the landscape to the west of Gretton. Here, the impressive late Victorian Welland Viaduct extends across the Welland valley, with the rail line taking a long route across the gradient of the scarp, gradually rising up the 60m of slope across a distance of 5 km. To take account of local variations in landform on the scarp, its route includes a series of cuttings and embankments before entering the Corby Tunnel at the top of the scarp.

Recreation

There are few recreational opportunities on the scarp slope. The Jurassic Way runs along the slopes of the scarp between Rockingham and Gretton, and again criss crosses the slopes to the north, offering walkers fine views over the Welland to the surrounding landscape. The Hereward Way also runs up the escarpment to the north and east of Easton on the Hill.

Beyond these promoted walks, only a limited number of footpaths offer access to the scarp slopes.

AESTHETIC AND PERCEPTUAL QUALITIES

The Farmed Scarp Slopes form a dramatic and relatively prominent landscape feature adjacent to the low, riverine landscapes that border the Welland. When viewed from these lowlands, the scarp face forms a backdrop to foreground views, although the form this takes varies according to local variations in land cover. Where woodland cover dominates, the backdrop is dark and textured, a stark contrast to the relatively intensively farmed landscapes bordering the river. Texture and pattern is also created by the many hedgerows that divide some stretches of the slopes into a neat patchwork of fields, which in places emphasise landform features. Where no hedgerows are present in the view, and agricultural land use is of one type, a simple unified backdrop is apparent. Where permanent pastures are extensive, earthwork features such as ridge and furrow, hummocky land caused by slippage, and the terraces below Rockingham Castle are all clearly visible and add significantly to local character.

Wide views across the surrounding landscape are possible from many locations on the upper slopes of the scarp. These views encompass the course of the River Welland and its floodplain and beyond to the far slopes of the valley. Prominent buildings and structures gain visual prominence in these views, the Welland Viaduct and windmill between Morcott and Barrowden being two examples. The latter forms a prominent eye catcher on the distant horizon.

LOCAL DISTINCTIVENESS, LANDSCAPE CONDITION AND LANDSCAPE CHANGE

The scarp is a distinctive and instantly recognisable landscape. Whilst not particularly high or steep, it offers a striking contrast to the more subtle landform features elsewhere in the county.

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, offering texture and pattern on stretches of the highly visible scarp slopes. Where hedgerow decline is in evidence, a neglected character persists and although generally localised, the high visibility of the landscape increases their impact.

Despite the steepness of slopes, arable farming is relatively widespread. Any expansion in this would create further potentially extensive areas of monochrome fields, mirroring the character of the valley slopes to the north. Such changes would disturb the varied character of these slopes and threaten surviving areas of ridge and furrow.

Woodlands are generally in a good condition. Any change or reconfiguration of the woodlands would be widely visible from the lowlands.

15 FARMED SCARP SLOPES



Extensive views, East Farndon

15a Hothorpe Hills to Great Oxendon

The Hothorpe Hills to Great Oxendon Character Area is the most southern of the Farmed Scarp Slopes, and extends eastwards from the Leicestershire village of Husbands Bosworth to the southwestern side of Market Harborough. The scarp slopes rise from a height of around 110m ASL up to a high point of 167m ASL south of Barn-hill Spinney. Immediately to the north, the Hothorpe Hills provide a backdrop to the Broad Unwooded Vale. In the wider landscape, however, they also provide a backdrop to the more extensive River Welland valley and floodplain, as with other areas of Farmed Scarp Slope within the county. The extensive area of Clay Plateau forms the southern boundary of the character area.

Due to the sloping nature of the landform, the landscape is characterised by a predominance of improved pasture, with limited areas of calcareous grassland. Fields of both arable cereals and horticulture can also be found, in particular around Jugsholme Farm and Hollow Spinney. In such areas, the fields are generally larger, whilst fields throughout the remaining area are frequently small and small to medium. The majority of fields are sub regular in shape with only isolated fields with a regular form. The Hothorpe Hills have the most extensive woodland cover of all the Farmed Scarp Slopes in Northamptonshire, in particular on the western section of the character area around Sibbertoft. Woodland here has a varied composition, with broadleaved and mixed woodland dominating to the west of Sibbertoft Road. To the east, however, coniferous, broadleaved and mixed woodland are apparent surrounding minor watercourses with an area of shrub planting around The Coombes. The location of woodland on the slopes varies, with woodlands such as Spring Hollow extending down the mid slope onto lower slopes on the area boundary, and woodland around The Coombes extending all the way down the sloping landform.

Typical of the landscape type, settlement on the Farmed Scarp Slopes is limited, confined to the village of East Farndon and isolated farms and dwellings. East Farndon is located to the southwest of Market Harborough, on the eastern section of the slopes. It has developed along a number of roads, and extends down the sloping landform. Roads within the character area are limited, and those that are present generally extend up the sloping landform connecting settlement within the Broad Unwooded Vale to the north and Clay Plateau to the south. Public rights of way are more extensive, however, including numerous minor footpaths and sections of the Jurassic Way.

15 FARMED SCARP SLOPES



Rockingham Castle on scarp slopes from wooded edge

15b Cottingham to Harringworth

The Cottingham and Harringworth Character Area rises from a low point of 45m ASL adjacent to the River Welland Broad River Valley Floodplain to a high point south of Gretton reaching 112m ASL. The character area provides a backdrop to the river and the rising landform allows extensive views over the floodplain landscape and beyond towards Leicestershire. Whilst the lower slopes have a gentle character, they become steeper on the upper slopes adjacent to the Ironstone Quarried Plateau. The hummocky mid to upper slopes, particularly evident around the course of the railway line, may be a remnant of localised quarry workings within the area.

Land cover comprises a combination of both arable cereals and horticulture and improved pastures, in largely regular shaped fields with evidence of geometric systems around Gretton and Cottingham. Although fields under arable cultivation are evident on the steeper, upper slopes, land use is generally confined to improved pastures and large areas of calcareous grassland. Due to the steeper nature of the slopes, and reduced suitability for agricultural use, woodland blocks are frequent in such locations, for example south of Rockingham Village. Woodland here consists of both broadleaved and coniferous copses with two areas of woodland, including Fir Grounds. This is an area of ancient woodland, having once formed part of the more extensive Rockingham Forest. Although no other significant woodland blocks are evident in the character area, the course of the railway line is heavily treed and mature hedgerow trees are scattered along boundary lines.

Settlement on the Cottingham to Harringworth Character Area is restricted to small and moderately sized villages. The village of Cottingham is the largest settlement, extending up and along the valley slopes from the floodplain landscape onto the surrounding Wooded Clay Plateau. Whilst also moderately sized, Gretton is largely located on the Ironstone Quarried Plateau with only the western edge on the upper section of the Farmed Scarp Slopes. By contrast, the main street within the linear settlement of Rockingham is lined with thatch and slate cottages. It is located entirely within the character area, and extends from the lower slopes towards the mid slopes. Beyond the village settlements, the landscape retains a rural character with no other dwellings. Although both minor and main roads provide access to settlement, roads extending across the valley slopes are limited to Rockingham Road, connecting Cottingham to Rockingham, and Harringworth Road located on the northeastern edge of the area. Other roads are confined to the northwestern boundary on the edge of the River Welland Floodplain. Despite limited road access on the sloping landform, the railway line between Corby and Oakham descends the valley slopes around Gretton and continues for a length along the mid slopes before leaving the character area around Harringworth. The line of the railway is evident throughout a significant proportion of the landscape, identifiable as well treed course. Pedestrian access is also more extensive with a number of rights of way, including the Jurassic Way located on the mid scarp slope.

15 FARMED SCARP SLOPES

Significant features in the landscape include the Grade II* listed Rockingham Castle, situated on the upper slopes within the heart of Rockingham hunting country, overlooking the village of Rockingham and surrounding floodplain landscape. The castle was built on the orders of William the Conqueror, on a commanding hill site previously occupied by Iron Age, Roman and Saxon tribes. It became a popular retreat for royalty and, today, holds many artefacts associated with its royal occupants. It was converted into a private residence in 1553 and bought by Sir Lewis Watson in 1619, whose family still own it to today. 18 acres of formal and wild gardens surround the castle. Those to the south and west were laid out in the 16th Century, with 17th and 19th Century additions. The surrounding parkland landscape, thought to date from the 13th Century deer park, was enlarged in 1485 and again in the 18th Century. Numerous fields of ridge and furrow are also scattered along the slopes.



Harringworth Viaduct as a backdrop to the village and church



View to Morcott

15c Harringworth to Duddington

The Farmed Scarp Slopes between Harringworth and Duddington begin at a height of 40m ASL, adjacent to the River Welland, rising steadily to a height of around 100m ASL on the edge of the Ironstone Quarried Plateau and Wooded Limestone Hills and Valleys. Southeast of Shotley, however, the slopes reach a height of 110m ASL. Rising from the floodplain landscape, the slopes are orientated towards the river providing long distance views over Leicestershire.

A combination of regular shaped large and medium to large scale arable and pastoral fields characterise the landscape. Predominating in the northeastern section are arable cereals and horticulture, with improved pastures around Wakerley. Southwest of Turtle Bridge, improved pastures with areas of calcareous grassland predominate, however, with only occasional arable fields. Woodland cover is extremely sparse, limited to only four small copses, the most significant of which is Wakerley Oaks, comprising a broadleaved ancient woodland on the southern boundary.

Settlement in the character area is sparse, including the two villages of Harringworth and Wakerley and the hamlet of Shotley. Harringworth and Wakerley, both linear villages, have developed along the lower valley slopes adjacent to the River Welland, with the church spire at Wakerley forming a prominent local feature. Beyond this, the landscape retains a sparsely settled rural character with only isolated dwellings located along the main road connecting Harringworth and Wakerley. Located on the mid slope, this road provides the only access to this central area of the Farmed Scarp Slopes. However, a number of minor roads descend the valley slopes to provide access to village settlements. Southwest of Harringworth, a limited section of the railway line between Corby and Oakham is evident, along with a dismantled railway line north of Wakerley. Pedestrian access is also limited to occasional footpaths, the most significant being the Jurassic Way located around the settlements on the slopes.

Although landmarks in the character area are limited, the Welland Viaduct located in the adjacent River Welland Broad River Valley Floodplain is a prominent feature. Beyond the county boundary, a windmill southeast of Morcott also provides a prominent feature and focal point.

15 FARMED SCARP SLOPES



Duddington to Easton on the Hill

15d Duddington to Easton on the Hill

Stretching from Duddington to Easton on the Hill, this is the most northerly section of the Farmed Scarp Slopes within the county. The Duddington to Easton on the Hill Character Area is also the lowest of the Farmed Scarp Slopes, rising from a height of approximately 20m ASL adjacent to the River Welland to between 80m and 85m ASL adjacent to the Wooded Limestone Hills and Valleys and Limestone Plateau. Although the steepness of the slopes varies, in general they shelve gently towards the floodplain landscape.

Despite the sloping landform, soils in the area are productive with the landscape characterised by a predominance of arable horticulture with scattered fields of arable cereal. Improved pastures are sparse, often grazed by sheep and located mainly on Easton Hillside between areas of woodland planting, and around the settlement of Easton on the Hill. Occasional fields of neutral and calcareous grassland are also found in similar locations. Although fields are mainly regular in shape, a significant proportion is also geometric, following the contours and emphasising the sloping landform. Woodland cover, although sparse, nevertheless contributes to local landscape character. Woodlands are confined mainly to broadleaved copses on the northern edge of the character area around Easton Hillside with one broadleaved woodland at Dottrell Hill Plantation. Typically, these woodlands occupy the lower and mid slopes, although Wothorpe Groves and Pit Holes combine to create the largest woodland block within the area, extending onto the upper valley slopes. Small broadleaved copses are also evident on the mid slope north of Collyweston. Woodland around Tinwell Crossing is the only ancient woodland in the area. Despite limited woodland cover within the character area, woodland in the surrounding Wooded Limestone Hills and Valleys creates prominent horizon features.

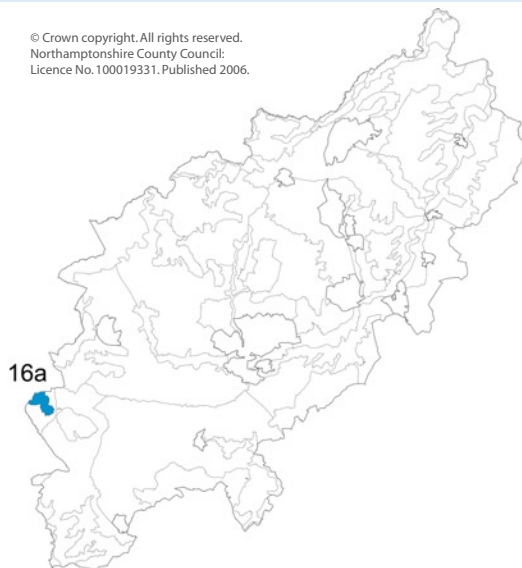
Typical of the landscape type, settlement on the Duddington to Easton on the Hill Character Area is limited, confined to the two villages of Duddington and Collyweston. The linear village of Duddington has developed along the lower and mid slopes, whilst Collyweston is clustered around the junctions of a number of roads on the upper slopes, adjacent to the Limestone Plateau. The village is often screened from view on the lower slopes due to surrounding vegetation. Beyond this, a rural character prevails with only occasional isolated dwellings, most notably Keeper's Lodge and a single dwelling on the mid slope south of Collyweston. Communication routes are limited, with minor roads providing access to villages, including Ketton Road cutting across the sloping landform to the village of Collyweston. This is concealed, however, by surrounding hedgerows. There are also a limited number of main roads in the character area, including small sections of the A47(T) and A43, which also forms the eastern boundary. Although pedestrian access is limited across the sloping landform, sections of the Macmillan Way, Jurassic Way and Hereward Way descend the valley slopes.

Local landmarks are extremely limited, although Collyweston Church is prominent on the horizon. Beyond the character area, works associated with the quarry at Ketton are a prominent feature in the surrounding landscape.

16 LOW PASTORAL HILLS

CHARACTER AREAS

16a Boddington Hills



Field with wildflower edge

KEY CHARACTERISTICS

- **Low lying broad hills distinctive within the surroundings of the Broad Unwooded Vale;**
- **limited standing and flowing water evident;**
- **Lias Group mudstones form broad hills rising to 170m ASL with no drift geology evident in the landscape;**
- **long distance views apparent from the hills into the neighbouring county;**
- **general predominance of improved pastures with pockets of calcareous grassland, although evidence of arable farmland to the west and east;**
- **small scale pastoral land and larger scale arable fields enclosed by hedgerows and post and wire fencing;**
- **woodland limited across the landscape, though numerous mature hedgerow trees are evident;**
- **settlement very limited, generally consisting of occasional small villages and isolated farms and dwellings;**
- **network of minor country lanes linking settlement within the landscape to surrounding villages; and**
- **recreational opportunities confined to the network of public rights of way.**

16 LOW PASTORAL HILLS

LOCATION AND INTRODUCTION

The Lowland Pastoral Hills comprise a discrete area of elevated landscape on the western edge of the county. Surrounded by an area of Broad Unwooded Vale, it continues beyond the county boundary to the northwest into Warwickshire. At the county scale of assessment, only one area within Northamptonshire was identified as Low Pastoral Hills. The landscape type is represented as a single character area: the Boddington Hills. The descriptions below therefore apply to the character area as well as the type.

PHYSICAL INFLUENCES

Geology and Soils

As is typical of lowland landscapes on the western fringes of the county bordering the vale, Charmouth Mudstones are extensive and form the low, gently rolling landscapes below the 130m ASL contour. Echoing the geological structure of the Rolling Agricultural Lowlands, Lias Group Silty Mudstone marks the position of elevated land. This geological formation is more extensive in the Low Pastoral Hills landscape, however, and forms relatively high hills that rise 70m above the level of the surrounding lowlands. The southernmost of these distinctive hills is capped by a limited exposure of the Marlstone Rock Formation.

No glacial or post glacial drift geology is evident in the landscape. Soils located on the more elevated areas include fine loamy over clayey and clayey soils, with slowly permeable subsoils, and slight seasonal waterlogging with slowly permeable seasonally waterlogged fine loamy over clayey soils, and fine silty over clayey and clayey soils on the lower slopes. At the base of the Low Pastoral Hills are small pockets of slowly permeable seasonally waterlogged clayey soils with similar fine loamy over clayey soils.

Landform

The Low Pastoral Hills is a small area of low lying hills, comprising three main hills to the north, south and west of Upper Boddington. The hills reach a height of 166m ASL, 160m ASL and 176m ASL respectively and on the lowest slopes to the south, around Lower Boddington fall to a height of 120m ASL. In places, the elevated nature of the landscape allows views across the county boundary into neighbouring Warwickshire, in particular from slopes on the northern side of the hills. To the south, however, views are possible over the Broad Unwooded Vale towards the Ironstone Hills and Undulating Hills and Valleys. The hills continue northwards across the county boundary where the highest of the hills, Berry Hill, rises above the village of Priors Hardwick and a steep scarp slope overlooks the course of the Oxford Canal.

Hydrology

Water features are not a significant characteristic of the Low Pastoral Hills and are restricted mainly to drainage ditches, frequently confined to boundary lines. Other water features that are evident in the landscape comprise small natural field ponds generally on the upper slopes. Beyond the county boundary, a significant number of springs are evident on the upper slopes south of Priors Hardwick.

Land Use and Land Cover

Improved pasture, often found in close proximity to small pockets of calcareous grassland, generally predominate across the Low Pastoral Hills. Small scale fields grazed by sheep, with some areas of horticulture, dominate the central area of the hills around the settlement of Upper Boddington. Arable farming is also evident, however, including both arable cereals and arable horticulture. Large and medium to large scale arable fields are confined to the western edge of the landscape extending from the hill top around Fox Covert and to the west of Boddington Reservoir.

Woodland and Trees

Whilst woodlands are not a significant characteristic, boundary lines with many trees provide some tree cover within the landscape. Hedgerows trees include species of oak, ash and sycamore that are abundant in places, although a number are stag headed. Woodland copses are restricted to a small broadleaved woodland, Fox Covert on the western edge of the area along the county boundary.

HUMAN INFLUENCES

Buildings and Settlement

Settlement is relatively limited within the Low Pastoral Hills. The compact village of Upper Boddington has developed along a number of minor roads. Extending up the sloping landform, it comprises the main settlement in the centre of the area. Dwellings are constructed mainly from brick, ranging from red bricks to those that are pale buff in colour. The use of stone is also evident in the village, however, most notably in the church, constructed from a dark, orangey-brown stone, which also provides a prominent local landmark. Beyond this are isolated farms and dwellings frequently located on the upper slopes and also at the base of the hills. Large agricultural buildings are often associated with farmsteads and can be conspicuous in the landscape, although smaller isolated buildings are also evident within fields. On occasions, stacks of round bales are evident adjacent to farm buildings.

Heritage Features

Heritage features are extremely limited in the landscape and only include scattered fields of ridge and furrow.

16 LOW PASTORAL HILLS

Boundaries and Field Patterns

Hedges typically comprise hawthorn and are low to medium height and frequently well clipped. Evident in a number of pastoral fields are reinforcing post and wire fences, in particular where gaps are apparent in the boundary line. Hedgerows trees are frequent, including mature species of oak, ash and sycamore. Pastoral fields on the Low Pastoral Hills are typically smaller in size than the large and medium to large scale arable fields on the edge of the landscape type. The majority of fields have a sub regular shape, however, with only occasional regular fields confined mainly to the edge of the landscape type.

Communications and Infrastructure

Roads across the landscape are restricted to minor country lanes cutting across the landscape in a general north-south and east-west direction. Whilst roads are located on more elevated areas of land, they are also located at the base of slopes and can be seen descending the hill slides. All roads within the landscape converge at Upper Boddington and connect the village with settlement in the wider landscape and beyond the county boundary. Large areas of the landscape are inaccessible to road traffic, allowing such areas to retain a quiet rural character.

Recreation

Recreational opportunities are limited, confined to public rights of way passing through the landscape, in particular to the north of Upper Boddington and connecting Lower Boddington with Boddington Reservoir, both of which lie beyond the boundary of the Low Pastoral Hills. Although not within the area, Boddington Reservoir does provide recreational facilities such as sailing and windsurfing within the vicinity.

AESTHETIC AND PERCEPTUAL QUALITIES

Improved pastures with pockets of calcareous grassland and hedgerows and hedgerows trees add texture to this simple, curved agricultural landscape. Areas of arable farmland add further colour and interest to the area. The elevated nature of the Low Pastoral Hills allows views over the neighbouring county and into the surrounding Broad Unwooded Vale, which is a flat and more expansive landscape in contrast to the rising landform of the hills.

LOCAL DISTINCTIVENESS, LANDSCAPE CONDITION AND LANDSCAPE CHANGE

The Low Pastoral Hills landscape retains a productive rural character. Overall, it is well maintained. The strength of character diminishes, however, where hedgerows have become gappy and post and wire fences are more prevalent. At a county scale, the landscape is relatively rare due to its limited coverage.



Ridge and Furrow at Upper Boddington

16a Boddington Hills

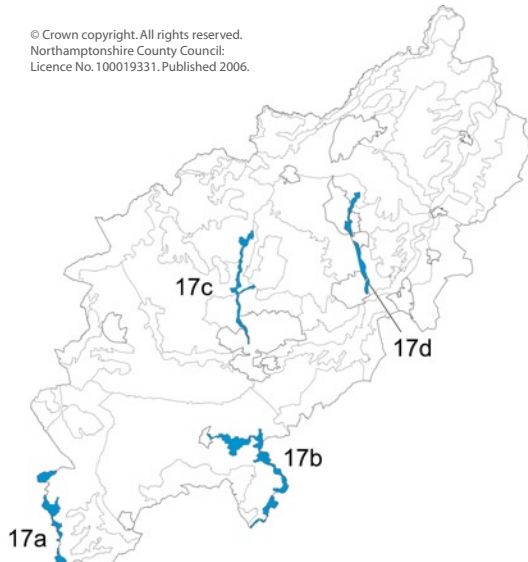
The Boddington Hills Character Area is the only landscape character area associated with the Low Pastoral Hills landscape character type within the county. The descriptions above therefore apply to this single character area.

17 RIVER VALLEY FLOODPLAIN

CHARACTER AREAS

- 17a River Cherwell Floodplain
- 17b River Tove Floodplain
- 17c Brampton Valley Floodplain
- 17d River Ise Floodplain

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River Valley Floodplain, Ridge and Furrow at Chacombe

KEY CHARACTERISTICS

- Valleys principally underlain by Lias Group mudstone geology, with alluvium along tributaries that drain each of the floodplains, together with areas of sand and gravel;
- rivers follow a central course within the floodplain landscape;
- flat floodplain landscapes that vary in width, surrounded by gently rising valley sides;
- wide views over the predominantly open floodplain, contained by woodland and rising landform of surrounding landscape types;
- a productive agricultural landscape with varying cover of both arable and pastoral land, with a predominance of arable in the valleys of the Cherwell and Tove;
- Areas of neutral and calcareous grassland evident, often closely associated with areas of improved pasture;
- woodland cover is generally sparse, although limited small linear copses are evident along the course of rivers, railways and canals;
- concentrations of small woodlands and large parkland trees apparent around designed parklands;
- hedgerows often gappy and grown out, with reinforcing post and wire fences frequent, in particular around pastoral fields;
- limited semi-mature and mature hedgerow and river edge trees provide important vertical elements;
- settlement extremely limited within the floodplain, confined to small village settlements and isolated farms and dwellings;
- significant urban influences on floodplain landscapes from surrounding large scale settlements and associated infrastructure elements;

17 RIVER VALLEY FLOODPLAIN

- **few heritage features evident, confined primarily to fields of ridge and furrow. The outer edges of parkland landscapes are evident in many valleys;**
- **roads across the floodplains vary from minor country lanes crossing the floodplain to busier 'A' roads, and on occasions motorways; and**
- **recreational opportunities confined mainly to a network of footpaths, including numerous sections of national trails and leisure parks such as Wicksteed Park and Cosgrove Park.**

LOCATION AND INTRODUCTION

There are four separate sections of River Valley Floodplains within the county with the most southern representation of this landscape type occurring along the southwestern section of the county boundary, and the most northern area extending from the eastern edge of Kettering to the eastern edge of Wellingborough. This landscape type covers a relatively limited area, with each area having a linear form. A number of landscape types border the River Valley Floodplain, including large areas of the Undulating Hills and Valleys, Undulating Claylands and Rolling Ironstone Valley Slopes.

The floodplain of the River Cherwell forms most southern area of River Valley Floodplain landscape type, and extends beyond the county boundary to the west. The River Tove is located on the southeastern boundary, the river itself forming part of the county boundary for a section. Beyond the river channel, the landscape type extends in an easterly direction beyond the county boundary. The two remaining areas of narrow, linear River Valley Floodplain are located within a central position in the county, within the Brampton Valley to the north of Northamptonshire, and the Ise Valley between the settlements of Wellingborough and Kettering.

PHYSICAL INFLUENCES

Geology and Soils

The River Valley Floodplains are principally underlain by Lias Group mudstones. These are generally Whitby Mudstone Formation rocks although in the west of the county, the Cherwell Valley is underlain by the Charmouth Mudstone Formation. Isolated patches of other rock types are also present, generally at the fringes of the floodplain where landform rises gently to the surrounding landscapes.

Drift geology in each of the valleys varies with only limited areas of silty clay evident in the Cherwell Valley, a combination of sand and gravel, sand, silt and clay and diamicton along the course of the Tove, and clay and silt evident along both the Brampton Valley and River Ise Floodplain. In all cases, these deposits are responsible for forming flat floodplains bordering the river channel. Areas of sand and gravel can also be found along the course of the Ise where they form river terraces above the floodplain.

Stoneless clayey soils dominate the floor of all the River Valley Floodplains. In places these are calcareous, and affected by groundwater. Soils on the lower valley slopes are variable. Within the River Cherwell Floodplain the lower valley slopes comprise slowly permeable, seasonally waterlogged fine loamy over clayey, and fine silty over clayey and clayey soils. This is in contrast to the River Tove Floodplain where as well as containing the above, also has evidence of fine loamy over clayey soils with slowly permeable subsoils and slight seasonal waterlogging, associated with similar but wetter soils. The lower valley slopes of the Brampton Valley Floodplain, along with the northern section of the valley, are dominated by slowly permeable, seasonally waterlogged clayey soils with similar fine loamy over clayey soils. Soils on the lower slopes and northern section of the Ise Valley mainly comprise well drained brashy fine and coarse loamy ferruginous soils over ironstone, and fine loamy over clayey and clayey soils with slowly permeable subsoils, and slight seasonal waterlogging.

Landform

The river valley floodplains vary in width, with wider sections evident in the valleys of the Cherwell and Tove, whilst the Brampton Valley and valley of the Ise remain narrow either side of the main river channel. Deep alluvial beds have been deposited within the valley bottoms, and are bordered by deposits of sand and gravel in a mainly flat floodplain landscape, with only minor undulations. Rising gently to the surrounding landscape types are the shallow valley slopes. The valleys rise from a low point of around 45m ASL in the valley of the Ise to around 100m ASL in the Cherwell Valley.

17 RIVER VALLEY FLOODPLAIN



Valley floodplain at Stony Stratford

Hydrology

The river channels of the River Valley Floodplain are intrinsic to the character of this landscape type. For the majority of their course, the rivers appear to be slow flowing, with a variable depth and height of surrounding banks. Vegetation surrounding the rivers varies, with some stretches forming boundary features and therefore surrounded by dense, hedgerow vegetation. By contrast, other areas are surrounded by flag irises, rushes and overgrown weeds and can be open to surrounding pastures or enclosed by post and wire fences. Hawthorn, willows and ash are frequent species occurring along the riverbank, and in some areas provide the only means of identifying the river in the landscape.

Land Use and Land Cover

Across the landscape type, there is roughly an equal balance of both pastoral fields and fields under arable cultivation, although in some valleys, a predominance of arable fields is evident in places, including in the valley of the Cherwell and Tove. Areas of calcareous and neutral grassland also occur across the landscape, and in places are closely associated with areas of improved pasture, frequently grazed by sheep and cattle. Where river valleys are in close proximity to urban areas, horsiculture influences in the landscape are frequent, including temporary white ribbon fencing and jumps. In limited areas, such as the village of Passenheim, a strong pattern of river meadow systems is apparent with pollarded willows. However, such areas are generally infrequent within the River Valley Floodplains.

Woodland and Trees

Woodland cover in the River Valley Floodplains is generally sparse, confined mainly to linear copses along the line of both active and dismantled railways, along canals passing through the landscape, and scattered along the course of rivers and their tributaries. The majority of woodlands have a deciduous composition, with species including willow, alder, hawthorn, oak and ash, with areas also dominated by young tree planting. Beyond the linear woodlands, only occasional copses occur. Parkland landscapes, with their established parkland trees and other associated vegetation, contribute distinctive tree cover within the landscape type where they occur. Wicksteed Park and Boughton Park are notable examples. Woodland in the surrounding landscape types also creates the impression that the landscape is more wooded than it actually is, including further parkland landscapes such as those at Easton Neston Park and Stoke Bruerne Park. Where apparent, woodland along with surrounding rising landform, can create a sense of enclosure in this otherwise generally open landscape.

Occasional mature and semi-mature oak and ash in hedged field boundaries are important in contributing to tree cover within the floodplains, and along with woodland, provide texture and vertical elements in this largely flat landscape.

HUMAN INFLUENCES

Buildings and Settlement

Settlement is limited across the River Valley Floodplain, confined to only occasional small villages and hamlets, some of which occupy bridging points along the course of the rivers, although the majority of villages are located on higher areas of land beyond the floodplain landscape. The main settlement pattern within the floodplains, however, is restricted to scattered farmsteads and isolated dwellings adjacent to roads passing over the river. Despite the sparsely settled landscape, large urban areas are often within close proximity and visible from the floodplain landscape.

17 RIVER VALLEY FLOODPLAIN

Heritage Features

Heritage features across the floodplains are generally limited, despite the likelihood of this being a long settled landscape. Parkland landscapes form the most prominent feature. Frequently, however, only the outer edges are located within the River Valley Floodplains. Easton Neston Park and Stoke Bruerne Park are both partially located within the valley of the Tove, whilst Boughton Park is evident on the northern edge of the Ise floodplain. Remnant ridge and furrow is often associated with areas of parkland and these also encroach onto the floodplain landscapes. Beyond such associations are occasional fields of ridge and furrow, although these are relatively limited, indicating loss by subsequent ploughing.

Boundaries and Field Patterns

Fields across the River Valley Floodplain vary considerably in size. In a number of areas pastoral fields range in size from small to small-medium, and arable fields are often larger. In general, however, fields under both pastoral and arable cultivation offer a broad size range. In the larger floodplain fields, there is often evidence of field amalgamation. Field shape also varies, although the majority have a sub regular shape, with pockets of discontinuous shaped fields, and only limited areas of regular fields.

Hedgerows enclosing fields tend to be very gappy and grown out, and in places only remnants of former hedgerows remain. In such areas, willow trees are evident punctuating the landscape, and in some cases provide the only means of identifying a former boundary line. Post and wire fences reinforce hedgerows, in particular around pastoral fields, although they frequently form the only boundary feature. Boundaries along the course of the river vary, to include both post and wire fences, and areas that are open to surrounding fields.

Communications and Infrastructure

Overall, communication routes in the landscape type are limited, and where they do occur they tend to be minor in character and cross over the floodplain landscape. A number of busier, major routes are evident, however, including the A508, A428, A14(T) and A510. The intrusive M40 is prominent in the Cherwell Valley Floodplain, reinforcing the close proximity of large urban settlements. Passing through the same area is a busy mainline railway and the course of the Oxford Canal. A railway line is also evident on the western edge of the River Ise Floodplain.

Urban areas, although located beyond the boundary of the River Valley Floodplains are visible on occasions, and have an impact on this rural landscape. High voltage pylons also pass over the landscape in some areas providing prominent vertical elements in this relatively open landscape.

Recreation

Recreational opportunities vary across the landscape type to include Leisure Parks, notably the Cosgrove Lodge Park, comprising one of the largest inland caravan and leisure parks within England; Wicksteed Park, the first leisure park within the UK; and local nature reserves that provide important areas not only for wildlife, but also for large urban populations within close proximity. Access varies and is limited in some areas, and more extensive in others, but overall is important within the valleys and includes sections of the Brampton Valley Way, Midshires Way, Grafton Way and Grand Union Canal Walk. Also located along the Brampton Valley is the Lamport and Northampton Steam and Heritage diesel railway, providing a tourist railway along the valley.

AESTHETIC AND PERCEPTUAL QUALITIES

Urban influences from surrounding settlements, and associated infrastructure, have an impact on the character and perception of various sections of the landscape type. Nevertheless, significant areas retain a quiet rural character that at times can appear empty and remote. The landscape is perceived as having a simple character with recurring elements such as both arable and pastoral land and linear deciduous copses. Woodlands within the landscape, combined with surrounding valley sides, create a sense of enclosure in places, resulting in a more intimate scale landscape. The decline of hedgerows and lack of boundary management provides a sense of fragmentation across the valley landscapes. Despite the close proximity of managed parkland landscapes, the course of the rivers and their tributaries provide naturalised elements.

LOCAL DISTINCTIVENESS, LANDSCAPE CONDITION AND LANDSCAPE CHANGE

The condition and visual appeal of the landscape varies and is very much dependent on the influence that urban features have on the landscape and views to them. In the rural areas located away from the influence of large settlements, notably Northampton, Wellingborough, Kettering and Rugby, the scenic quality of the landscape improves in areas. However, the decline of hedgerows and overall gappy appearance creates a sense of fragmentation to the landscape, despite some areas retaining more traditional floodplain characteristics such as pollarded willow trees.

Within the largely flat and open floodplain landscape, landmark features are relatively limited, although where they do occur, trees and woodland provide important vertical elements. Other landmarks are limited to occasional prominent church spires on the edge of the floodplain, such as at Finedon.

17 RIVER VALLEY FLOODPLAIN



Canal and pasture on the River Cherwell floodplain

17a River Cherwell Floodplain

The River Cherwell Character Area, on the southwestern edge of Northamptonshire, forms part of a broader character area that extends westwards beyond the county boundary. Within the county, the character area is confined to the eastern side of the Cherwell valley and floodplain, with the river running largely along the county boundary. A number of tributary streams drain into the river, including the Farthinghoe Stream. The Oxford Canal is also located adjacent to the river although only a limited stretch south of the B4100 is within the character area.

Land use within the floodplain comprises a predominance of arable cereals and horticulture in fields of varying size. Although improved pastures are evident, often with grazing cattle, they are limited and occur mainly to the northeast of Clifton, on the western edge of King's Sutton and southwest of Overthorpe. West of Chacombe, however, the small area of isolated River Valley Floodplain is dominated by improved pastures in small and medium to small scale fields. Limited areas of neutral grassland can also be found adjacent to the B4100 and adjacent to the railway line west of Sutton Lodge Cottage.

Woodland cover in the character area is generally sparse, confined mainly to linear belts of young trees in the southern section of the area, in close proximity to the railway line and canal. Areas of scrubby vegetation are also evident adjacent to the railway. Along with railways in current use that are marked by woodland belts, the course of the dismantled railway south of Warkworth is also reasonably well treed, and includes a prominent line of poplar trees. The most notable woodland block in the area surrounds the M40 southwest of Overthorpe.

Settlement within the character area is extremely sparse, and confined to a few isolated farms and dwellings. Nevertheless, the floodplain has been exploited for use as a busy infrastructure corridor and contains the M40, main London to Birmingham railway, River Cherwell and Oxford Canal. It also lies in close proximity to larger settlements, notably Banbury and the smaller settlement of Bodicote, which are visible to the west beyond the floodplain and the county boundary. These infrastructure and urban elements have an impact upon the rural character of the floodplain.

17 RIVER VALLEY FLOODPLAIN



River Tove at Stony Stratford

17b River Tove Floodplain

The River Tove Floodplain Character Area is located on the southeastern boundary of Northamptonshire. The southern section of the River Tove Floodplain forms part of a broader character area that extends eastwards beyond the county boundary, being formed in part by the floodplain of the River Great Ouse, which meets the Tove at Cosgrove. The northern section extends westwards into Northamptonshire towards Towcester. In the northern section, the River Tove is central to the floodplain landscape, but in the southern section, the Tove runs along the county boundary together with the Grand Union Canal and River Great Ouse. The narrow, meandering course of the river set into the floodplain is often inconspicuous within the landscape, marked only by scattered trees of willow and ash with occasional limes and poplar lines. Pollarded willows also occur along the line of the river, most notably at Passenham. Although in places both the River Tove and canal are open to surrounding fields, in other areas they are bounded by post and wire and fences and the canal is frequently lined by low hawthorn hedgerows.

A combination of arable land and improved pastures, grazed by both sheep and cattle, characterises the area, although pasture predominates in the southern section of the character area around Passenham, the western edge of the character area, including the areas around the settlement of Cosgrove, northwest of Grafton Regis, and south of Stoke Bruerne Park. Small areas of calcareous grassland also occur in similar locations. Field sizes vary throughout the floodplain landscape, although in larger fields there is often evidence of field amalgamation. Woodland cover is sparse in the character area, confined mainly to areas of young tree planting established along the line of streams flowing into the River Tove northwest of Alderton. Isolated small broadleaved copses are located within the area, the largest of which is Fiery Furze. Areas of woodland and amenity planting are also associated with Cosgrove Leisure Park. Despite limited woodland cover in the floodplain, woodland in surrounding landscape types creates a greater sense of tree cover, particularly to the north of the area around Easton Neston Park and Stoke Bruerne Park.

Typical of the landscape type, settlement is limited. A number of isolated farms and dwellings occur within the floodplain, but large areas nevertheless remain unsettled. The eastern edge of Cosgrove, east of the Grand Union Canal, also extends into the floodplain along with a hotel and Cosgrove Leisure Park. South of Cosgrove the hamlet of Passenham occupies a bridging point along the course of the river. The hamlet comprises a church, collection of farm buildings, and old mill and mill leat are located. Limestone is often conspicuous in the construction of many of the buildings. There are limited roads providing access to individual dwellings and settlements. These generally cross over the floodplain landscape rather than running along the valley. Glimpsed views are possible, however, of the A5(T) Watling Street Roman Road.

Although recreational opportunities in the River Tove Floodplain are generally limited, the Cosgrove Leisure Park, east of Cosgrove, provides one of the largest inland caravan and leisure parks within England. The Park is set within 180 acres of landscaped grounds with the river and twelve lakes providing a number of water sports activities. Fishing lakes and a driving range are also located southwest of Passenham. A number of footpaths cross through the landscape, including the Grand Union Canal Walk and a limited stretch of the Grafton Way. Beyond the character area there are glimpsed views of Towcester Racecourse.

17 RIVER VALLEY FLOODPLAIN



River Nene at Kingsthorpe with the stream in spate

17c Brampton Valley Floodplain

The Brampton Valley Floodplain Character Area is located on the northern edge of Northamptonshire and drained by a number of tributaries. It flows from the northern edge of the character area around Draughton, and towards the centre of Northampton, before finally joining the River Nene. The meandering course of the main tributary that flows through the central part of the valley is frequently marked by willow and ash, and is particularly overgrown around Northampton in the Kingsthorpe Nature Reserve. In other areas, however, the watercourse is largely open, marked only by occasional trees punctuating the landscape.

Land use in the area is a combination of both arable and pastoral fields, although the latter predominates in smaller scale fields in the southern section of the character area up to the Northampton and Lamport Railway, and northwest of Brixworth. Beyond this to the north, fields are larger and under arable cultivation. Due to the close proximity of urban development, 'horsiculture' predominates in pastures to the south, along with significant areas of neutral grassland. Fields are frequently divided with post and rail fences, with evidence of prominent, white ribbon temporary fencing. Many fields are undergrazed and have a scrubby, overgrown appearance in the landscape. Typical of the landscape type, woodland cover is sparse, confined to linear broadleaved copses along the course of tributary streams. However, hedgerow trees and streamside vegetation provide some tree cover within the area.

Settlement within the valley is extremely sparse with only occasional isolated farmsteads and dwellings located adjacent to roads crossing over the valley landscape. Associated with a number of dwellings are stable blocks, which are particularly prominent to the south of the character area, close to Northampton. Although the majority of roads crossing the valley are minor, the A5199 and A508 are both busy roads within the character area. Bounding the southern boundary are the A5095 and A428, providing further urbanising influences upon the area.

Two railway lines are located along the valley, one of which is still in use, the other a dismantled railway that once formed part of the Northampton to Market Harborough branch, designed by George Bidder and George Stephenson, and opened in 1859. Although passenger services were closed on the line in 1981, rebuilding of the railway began in 1995 and six and half miles are now complete to the Lamport Crossing. The Northampton and Lamport Steam and Heritage diesel railway now operates on the line as a tourist railway. The Brampton Valley Way, Midshires Way and off road cycle track also run along the remaining length of the dismantled railway. The Kingsthorpe Local Nature Reserve provides an additional recreational opportunity within the area. Originally known as Kingsthorpe Mill Meadows, it covers an area of 7 hectares of land, and was formerly used as an area of flood meadows. It included the site of Kingsthorpe Mill. Sections of the old mill race are still evident in the area, which is now important for insects, wild flowers and mammals.

17 RIVER VALLEY FLOODPLAIN



Riverside near Furnace Lane



Wicksteed Park, recreation park

17d River Ise Floodplain

The gently sloping valley and floodplain of the River Ise Floodplain Character Area stretches between Kettering and Wellingborough to join the River Nene southeast of Wellingborough. The settlement of Burton Latimer extends across the valley south of Kettering and divides the floodplain landscape. Despite being heavily influenced by the close proximity of large urban areas and associated infrastructure, the character area does retain some sections that have a rural character where the river is surrounded by vegetation, including flag irises and rushes. A varied character predominates throughout the floodplain landscape.

A combination of both arable and pastoral land, in fields of varying sizes, characterises the landscape. Often, however, small to medium scale grazing sheep pastures predominate, notably north of Burton Latimer, together with some areas to the south around Furnace Cottages and on the eastern edge of Wellingborough. Areas of calcareous and neutral grassland are also closely associated with areas of improved pasture. A significant area of neutral grassland is evident to the northwest of Barton Seagrave, adjacent to the River Ise. Woodland cover, although limited, is more abundant in this character area than any other areas of River Valley Floodplain. It is mainly confined to linear woodlands closely associated with the River Ise and its tributaries, along the dismantled railway northeast of Wellingborough, and within Wicksteed Park and Boughton Park on the northern edge of the character area. Woodland here forms part of the more expansive parkland landscape of Boughton Park, including scattered parkland trees. Hedgerow trees are located throughout the landscape, contributing to overall tree cover with willow, alder and hawthorn common along the course of the River Ise.

Settlement in the character area is extremely limited, confined to isolated farms and dwellings and an area of industrial units along Furnace Lane. Despite limited settlement within the floodplain, significant urban areas are visible adjacent to the character area. Limited areas of vegetation adjacent to settlements provide partial screening, including tree and shrub planting surrounding the River Ise, and public open space between Kettering and the northern edge of Barton Seagrave. Crossing the floodplain landscape are a number of roads that connect settlements beyond the character area, including both quiet country roads and the busier A6003 and A14(T) at Kettering, and the A510 at Wellingborough. Other urban influences include high voltage pylons and the main line railway connecting Wellingborough and Kettering, which follows the western edge of the character area. It is a busy line with relatively frequent trains, and is inconspicuous along some sections within the landscape, marked only by post and wire fences with some scrub. Sections of dismantled railway also occur within the area.

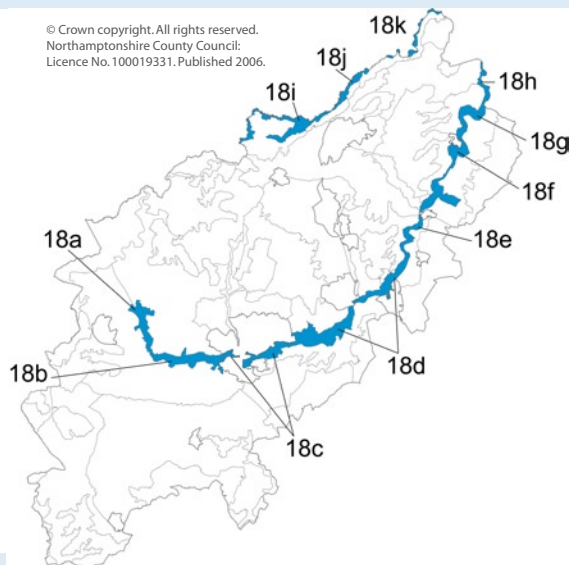
Wicksteed Park is located within the centre of the floodplain on the southeastern edge of Kettering, and provides a valuable recreational opportunity within the character area. Developed on a former area of meadowland, and the inspiration of its founder Sir Charles Wicksteed, the Park was the first leisure park in the UK. Set within 147 acres of sunken gardens, tree lined walks, nature trails and picnic areas, the park is also a valuable wildlife habitat. Central to the park is a 30 acre lake and at the northwest corner is the pavilion building. Car parking facilities are extensive at the Park and a miniature railway provides access around the site. The Park, together with public open space to the north adjacent to the River Ise, provides important areas for recreational opportunities in close proximity to urban centres. A number of public rights of way also cross the floodplain landscape.

Although landmarks in the character area are limited, the church spire at Finedon is a notable feature and prominent on the horizon.

18 BROAD RIVER VALLEY FLOODPLAIN

CHARACTER AREAS

18a	The Nene – Long Buckby to Weedon Bec
18b	The Nene – Weedon Bec to Duston Mill
18c	The Nene – Duston Mill to Billing Wharf
18d	The Nene – Billing Wharf to Woodford Mill
18e	The Nene – Woodford Mill to Thrapston
18f	The Nene – Thrapston to Cotterstock
18g	The Nene – Cotterstock to Warmington
18h	The Nene – Warmington to Wansford
18i	The Welland – Market Harborough to Cottingham
18j	The Welland – Cottingham to Wakerley
18k	The Welland – Tixover to Wothorpe



Broad River Valley Floodplain, River Nene, Woodford

KEY CHARACTERISTICS

- **Broad, flat and predominantly wide floodplain surrounded by rising landform of adjacent landscape types;**
- **deep, alluvial clay and silt with sand and gravel, masking the underlying geology;**
- **river channel with slow flowing watercourse with limited bank side vegetation in areas;**
- **predominance of unimproved pasture with pockets of both neutral and improved grassland and scattered arable land in fields of varying size; arable land becomes more frequent within the western section of the Nene Valley;**
- **limited woodland cover confined to occasional broadleaved copses scattered throughout the floodplain;**
- **hedgerow trees, although infrequent, are an important feature where they do occur, creating localised well treed areas;**
- **hedgerows are generally overgrown and reinforced with post and wire fencing with intermittent sections showing evidence of decline;**
- **settlement is very limited within the floodplain with a sequence of small nucleated villages on the lower valley slopes, along the western section of the River Nene;**
- **wider settlement pattern of scattered farmsteads and individual dwellings;**

18 BROAD RIVER VALLEY FLOODPLAIN

- **urban influences arising from the proximity of large urban areas and associated road infrastructure on the perimeter of some sections of the floodplain;**
- **minor roads generally cross the floodplain landscape at right angles to the river, with major roads also following the valley course and marking the boundary of the type;**
- **evidence of long periods of gravel extraction and restoration within the Nene Valley, particularly along the middle section of the Valley, with patterns of restored landscapes with numerous areas of wetland and lakes; and**
- **significant recreational activities within the Nene Valley landscape, mainly focused on the restored lakes.**

LOCATION AND INTRODUCTION

The Broad River Valley Floodplain landscape character type occurs in two separate areas within the county, in association with the two major river valleys of the Nene and Welland. The principal area, comprising the Nene Valley, extends across the central and eastern part of the county from the west of Northampton towards the northeastern section of the county and beyond towards Peterborough. A further section of the character type is also located along the northern boundary of the county where Northamptonshire adjoins Leicestershire, adjacent to the River Welland. A total of eleven character areas have been identified, eight within the Nene Valley and three within the Welland Valley.

PHYSICAL INFLUENCES

Geology and Soils

Although the rivers flowing through the Broad River Valley Floodplain have cut down through the underlying rocks, the valley floors have been overlain in areas with glacial tills (diamicton) dating from the Quaternary period, and sand and gravels, which mask the rocks beneath. Deep alluvial clay and silt deposits have enriched the valley floors, creating soils of good quality for agricultural use. Isolated areas of river terrace gravels can also be found scattered along the upper reaches of the river floodplain.

Soils within the valleys are characteristically of a good quality and fertile, due to the rich alluvial deposits. A broad band of stoneless clayey soils, in places calcareous, and variably affected by groundwater are evident along the base of the river valley. Soils vary along the lower valley slopes and along the course of the rivers. In the River Welland and western section of the Nene these mainly include slowly permeable, seasonally waterlogged, fine loamy over clayey soils, fine silty over clayey and clayey soils, and fine loamy over clayey and clayey soils, with slowly permeable subsoils and slight seasonal waterlogging. Small pockets of deep well drained coarse loamy and sandy soils, locally over gravel and slowly permeable calcareous clayey soils are also evident. In the central section of the Nene, soils mainly comprise deep permeable, mainly fine loamy soils variably affected by groundwater, and slowly permeable, seasonally waterlogged, clayey soils with similar fine loamy over clayey soils. Lower valley slopes in the eastern section of the River Nene are dominated by well-drained calcareous clayey and fine loamy soils over limestone, in places shallow and brashy.

Landform

The Broad River Valley Floodplains comprise some of the lowest areas in the county, in places reaching a height of only 20m ASL. They form distinctive riparian landscapes with the main rivers and tributary streams following a meandering course across the floodplain. In the northeast of the county, the Nene Valley floodplain comprises a low-lying, almost flat area that progressively merges into the flat and extensive landscape that characterises the Cambridgeshire Fens to the east beyond the county. In contrast, at its source close to Badby, the Nene Valley floodplain is more confined, surrounded by the more elevated land of the Undulating Hills and Valleys. In localised areas, the floodplain is narrower when surrounded by rising landform, such as areas adjacent to the Limestone Valley Slopes, adjacent to the Nene, and where the Farmed Scarp Slopes form a backdrop to the floodplain landscape, as in the case of the Welland. Generally, however, the floodplains of the river valleys are predominantly broad.

Hydrology

The river channels of the Broad River Valley Floodplain are intrinsic to the character of this landscape type. For the majority of their course, the rivers give the impression of being slow flowing, with variable depth and height of the surrounding river banks. Bank side vegetation in general is sparse with only limited areas of the riverside being well treed. Marginal vegetation is more abundant, however. As a consequence, in a number of areas the rivers lose their dominance within the floodplain landscape. Chains of former sand and gravel pits are located within the Nene valley, a large number of which have been flooded to form artificial lakes and combine to create local nature reserves. The earliest of these support dense vegetation and wet scrubland around their margins and provide valuable wildlife and wildfowl habitats.

18 BROAD RIVER VALLEY FLOODPLAIN

Land Use and Land Cover

There is generally a dominance of grassland within the floodplain, with calcareous grassland frequently occurring adjacent to the watercourse, indicated by areas of unimproved permanent pasture with pockets of both neutral and improved grassland. Arable fields are scattered throughout the valleys, which become more frequent within the western section of the Nene Valley, and throughout the Welland Valley.

In the central section of the Nene Valley, in particular, the sequence of lakes and wetland habitats, following restoration of sand and gravel extraction areas, is a dominant influence on the landscape character.

Woodland and Trees

Woodland blocks of any significant size are absent from the Broad River Valley Floodplain, with tree cover being restricted to smaller broadleaved copses and areas of young tree planting. Scattered tree planting, including ash, willow, elder and oak is also evident along the riverside along with areas of scrubby vegetation. In some areas, hedgerow trees are frequent within the hedged field boundaries, creating localised areas with a well treed character. Overall, however, tree cover is very limited, with the wooded backdrop of surrounding landscape types having more significance. A sense of openness therefore prevails within the floodplain.

Buildings and Settlement

Settlement is generally restricted to only a small number of scattered dwellings and farmsteads, and associated river buildings such as mills. The western side of the Nene Valley is slightly more heavily settled, however, with occasional nucleated settlements, including Nether Heyford and Kislingbury rising on the slopes of the valley. In some areas, dwellings are located extremely close to the river's edge. Overall settlement is limited within the floodplain itself, but towns and villages are frequently located on the edge of the floodplain landscape.

The Broad River Valley Floodplain is bordered by seven of the county's fifteen urban areas, so urban areas have a more significant influence on landscape character than the pattern of intermittent individual dwellings. Influences upon the landscape type are both direct and indirect. Direct influences include views to the urban areas and, during hours of darkness, the distinctive arc of light that rises above the towns. The largest of the urban areas is Northampton, which surrounds significant proportions of the Duston Mill to Billing Wharf section of the Nene Valley. Wellingborough, Rushden and Irthlingborough also have a significant influence on the Billing Wharf to Woodford Mill character area of the Nene. These areas occupy hillside locations, are visible over wide areas, and create a backdrop to the Nene Valley Broad River Valley Floodplain. Although Raunds, Thrapston and Oundle are smaller and more compact settlements, they still exert a strong influence on the rural landscape. Indirect urban influences, which become less conspicuous with distance from each urban area, include suburban building styles and materials in otherwise rural locations, and busy infrastructure development such as motorways, 'A' roads and railways. The resulting influence on the floodplain is therefore one that varies between being significantly urban, to one that is deeply rural and relatively remote.

Heritage Features

Few areas of historic interest are evident across the landscape. A limited number of pastoral fields show evidence of ridge and furrow, although this is not widespread throughout the area, and only glimpsed in views. Occasional examples of preserved medieval fields are evident, the most significant of which occur around the settlement of Kislingbury within the Nene Valley. Other elements of interest include scattered individual features. Most notable are the registered battlefield at Delapre Golf Course, the site of Mallow Cotton medieval village, and the outskirts of the registered park and garden at Brockhill Manor, all of which are located within the Nene Valley.

Boundaries and Field Patterns

Hedgerows are typically overgrown hawthorn, reinforced with post and wire fences, including the use of stock proof netting. Occasional gappy stretches are evident; here, the post and wire fencing becomes more prevalent. Limited examples of wooded post and rail fencing can also be found within the floodplain along with areas of hazel hedgerow. Where hedgerow trees are present they frequently comprise mature or semi mature oak and ash, along with scattered riverside vegetation, including willow, sycamore and elder. These provide important landscape features contributing a degree of woodland cover to an otherwise sparsely wooded landscape. The river itself frequently forms the boundary to fields adjacent to the watercourse with only scattered riverside vegetation evident. Field sizes vary along the length of the Broad River Valley Floodplain with evidence of subdivision of medium sized fields by post and wire fences and lines of field trees illustrating possible field amalgamation. The field shapes are consistent, however, and include both regular and sub regular fields. By contrast, limited areas of discontinuous fields are evident around land once used for sand and gravel extraction. Drainage ditches often marking field boundaries are bordered by vegetation, including mature willow trees.

HUMAN INFLUENCES

18 BROAD RIVER VALLEY FLOODPLAIN

Communications and Infrastructure

The majority of roads providing access across the floodplain landscape are minor in character, often connecting settlements on either side of the river. Nevertheless, a number of major roads are present. In general, these are associated with larger settlements and provide connecting routes between development within the county and beyond. Although major roads also provide direct access across the river, they principally follow the course of the river and are located along the edge of the floodplain marking the boundary, in contrast to the minor roads that often cross the river at right angles. Sections of railways also occupying the valley floodplain landscape are, and include both dismantled sections and lines in current use. Along with the development of road and rail networks impacting upon the character of the river valleys, the presence of sewage treatment works are now a frequent occurrence within this landscape. Despite a number of areas within the Broad River Valley Floodplains retaining a rural character, large proportions have been affected by communications and infrastructure development, in particular in the Nene Valley around Northampton.

Recreation

There are numerous recreational opportunities within the Broad River Valley Floodplain. Public footpaths and bridleways occur relatively frequently, including large stretches of the Nene Way, Grand Union Canal Walk and Midshires Way stretching across the landscape. Other recreational activities exploiting the river valley include marinas, fishing, and water activities such as water skiing. Numerous caravan, camping and picnic sites are also located within the valley, along with country parks and local nature reserves. A single golf course is located on the gentle slopes of the valley side, east of Far Cotton.

AESTHETIC AND PERCEPTUAL QUALITIES

Contrasting agricultural uses of arable and pastoral land with riparian vegetation, interspersed with some significant areas of man made wetland landscape create a patchwork of colours within the landscape. Despite the variety of the land uses, however, the continuity of intrinsic elements such as hedgerows, field shape and river create a strong landscape pattern. The overgrown hedgerows, along with surrounding landform, combine to create an intimate character, although panoramic views are frequently available along the river channel. Whilst large areas are quiet and inaccessible, a busier and intrusive character prevails where urban centres are in close proximity. For many sections of the floodplain, it is a well-managed landscape showing evidence of occupation for many centuries. Nevertheless, there are more degraded sections where current gravel extraction is operational, and where inappropriate or incomplete restoration of gravel extraction also detracts from an otherwise riparian landscape.

LOCAL DISTINCTIVENESS, LANDSCAPE CONDITION AND LANDSCAPE CHANGE

The condition of the landscape varies and is dependent on various factors. These range at a local level from the extent to which hedgerows are managed to the influence of development, including current gravel extraction within the Nene Valley, the extent and type of restoration of workings, development such as marinas, high voltage pylons crossing the landscape, to the nature of the surrounding urban development on the edge of the landscape type. Where urban development is extensive and insensitive to the landscape character, the condition of the landscape can be regarded as low. Elsewhere, however, where the river and floodplain remains largely unspoilt, a tranquil riparian landscape of higher scenic quality prevails.

18 BROAD RIVER VALLEY FLOODPLAIN



M1 and rail from an overbridge



Grand Union Canal and the distant M1

18a The Nene – Long Buckby to Weedon Bec

The Nene – Long Buckby to Weedon Bec Character Area within the Nene Valley occurs at its most westerly point, west of Northamptonshire, from Long Buckby, extending in a southerly direction to Weedon Bec. The area is characterised by generally smaller fields of both improved and semi improved pasture and larger scale arable fields. Pastoral fields frequently occur adjacent to the watercourse on the immediate floodplain, with arable fields extending onto the gentle valley slopes. Arable fields also occur adjacent to the river, however, and in general have no boundary to the watercourse. A section of the Grand Union Canal runs along the length of the floodplain and dominates the character of the area, unlike the River Nene, which is generally inconspicuous within the landscape. The main settlement is limited to occasional farmsteads and dwellings, a number of which are associated with lock points, most notably north and south of Whilton Lodge. These are accessed via minor roads and tracks crossing the canal, often at right angles. Scattered red brick barns can also be located on lower slopes. Infrastructure elements are frequent features within the area, including the M1 motorway, A5(T), and railway line that runs adjacent to the canal, both of which are situated on the lower valley slopes. Following the line of the canal is the Grand Union Canal Walk. Although not always obvious within the landscape, the M1 is particularly visible from the site of the medieval village of Muscott, creating a prominent landscape feature, along with radio masts scattered within the vicinity of the motorway. Distant noise from the motorway is almost always apparent.

18 BROAD RIVER VALLEY FLOODPLAIN



Kislingbury Mill and views to the north



Bugbrooke Flour Mill

18b The Nene – Weedon Bec to Duston Mill

The Nene – Weedon Bec to Duston Mill Character Area extends from Weedon Bec to Duston Mill, on the western edge of Northampton. The River Nene provides the main feature within the widening floodplain. Large arable fields characterise the area, together with both improved and scrubby pastoral land, largely grazed by sheep, but also with some evidence of horse pasture. Whilst in places both arable and pastoral land uses occur adjacent to the riverside, in general, arable fields are confined to the lower slopes. This is one of the most heavily settled areas of the Nene Valley, with riverside settlements including Upper and Nether Heyford and Kislingbury. These nucleated, compact settlements located on the lower valley slopes adopt a clustered position around the junctions of minor roads and often have slightly degraded approaches, in particular the northern approach to Nether Heyford. Beyond this lies a largely rural landscape with scattered farms and mill buildings. The dominance of the river channel varies throughout the character area. In places, the river edge is more wooded with species of oak, ash and willow, and appearing only as a boundary feature. In other areas, however, the channel is largely open with overhanging willows and reeds set within attractive rural surroundings. In general, views along the river valley are wide and panoramic, limited only by scattered areas of intervening vegetation. Beyond this, the surrounding landform of the rising valley sides creates a relatively intimate landscape. A dense footpath network occurs throughout the area, including the Midshires Way, Nene Way and Grand Union Canal Walk, all of which converge at Nether Heyford.

18 BROAD RIVER VALLEY FLOODPLAIN



Little Houghton across the floodplain

18c The Nene – Duston Mill to Billing Wharf

Located to the south of Northamptonshire, the Duston Mill to Billing Wharf Character Area is heavily influenced by the close proximity of significant areas of urban development. Dominating the area are large man made lakes occupying the valley floodplain, which have been created following the restoration of gravel extraction areas. The River Nene, railway, lines of high voltage pylons and a section of the Grand Union Canal to the west, all combine to provide a character influenced by the use of the floodplain as a communications corridor. Despite the influence of these urban and infrastructure elements, peaceful rural areas still remain. Surrounding the river and lakes is a landscape characterised by predominantly medium to large-scale pastoral fields occupied in areas with grazing cattle. Often overgrown and gappy hawthorn hedgerows divide the fields, with significant evidence of the use of post and wire fences.

Although land use within the character area is dominated by large-scale lakes developed on the site of former sand and gravel pits, in places they are inconspicuous despite the large number of major roads traversing the valley, since there is limited vehicular access to the water's edge. Pedestrian access is more extensive, however, and includes the Grand Union Canal Walk, Nene Way and numerous public footpaths.

There is a concentration of recreational opportunities within the valley, including Billing Aquadrome to the east, which comprises 235 acres of land, nine lakes with water sports and fishing, a marina and various caravan parks, camping sites, retail outlets and restaurants. Located in the most southern section of the area is the parkland landscape and golf course at Delapre Abbey and Gardens, which provides a valuable resource for the surrounding urban population. The site is also a Registered Battlefield commemorating the Battle of Northampton, fought during the War of the Roses on the 10 July 1406. Queen Eleanor's Cross, located at the most southern point of the Abbey grounds, represents one of the points at which the cortege carrying Queen Eleanor, wife of King Edward I, rested on her way for burial at Westminster Abbey. It also provides a prominent landmark within the area. Areas of the river and floodplain have also been developed as local nature reserves. Settlement is limited within the character area, incorporating only office and industrial development. Rising land surrounding the floodplain is heavily developed, with residential, industrial and commercial development creating a backdrop to the Broad River Valley Floodplain. Prominent buildings within Northampton and surrounding areas, including the Express Lifts Tower, provide important visual landmarks from both the character area and wider landscape.

18 BROAD RIVER VALLEY FLOODPLAIN



Great Addington across the Nene



Summer Leys Local Nature Reserve

18d The Nene – Billing Wharf to Woodford Mill

The Billing Wharf to Woodford Mill Character Area within the Nene Floodplain is the largest character area within the Broad River Valley Floodplain, extending for a significant length and width across the central eastern part of the county. A significant number of man made lakes again dominate the landscape, occupying the floodplain adjacent to the River Nene. In this location, the river is a less significant element within the landscape. The local nature reserves, country parks and lagoons in this area have been created from former gravel workings providing areas for not only public enjoyment and access, but also valuable habitats in the form of wet grasslands and reed beds, and nationally important areas for wildfowl and wading birds. Sections of dismantled railway and a number of high voltage pylons are also evident along the valley, the latter of which converge at the sub station northwest of Grendon. Surrounding the lakes is a landscape characterised by pastoral and arable fields, although water elements continue to dominate the majority of views.

Although urban influences are less evident within the character area than to the west, the impact of development on the edge of the floodplain at Irthlingborough, Rushden and Wellingborough remains prominent, including the development of Irthlingborough football ground to the east of the town, and also the surrounding industrial units, which extend into the floodplain. Further developments including active gravel pits, such as those to the west of Stanwick and at Irthlingborough, and sewage treatment plants also have an impact on the character of the landscape. Beyond these influences however, the area is very sparsely populated and settlement is confined to isolated dwellings and occasional farmsteads.

Whilst woodland cover remains sparse, a number of broadleaved copses contribute to the overall character. They frequently surround valley ponds, lakes and lagoons, thus helping to integrate these artificial waterbodies, created after gravel extraction has finished, into their landscape setting. More sensitive planting is required in a number of areas, however, to allow these man made features to integrate more harmoniously with their surroundings. Significant tree planting is also evident around lakes at Summer Leys Nature Reserve, south of Great Doddington. Here, new planting creates a sense of enclosure and limits views to the surrounding landscape.

Summer Leys has been created through the restoration of a disused gravel pits and includes a number of islands left in the centre of the former pits. It is valuable for waterfowl and wading birds, and often rare mammals, birds, dragonflies and flowers can be found. The nature reserve has both car parking and picnic facilities. Other areas of recreational interest in the valley include fishing, sailing, camping and caravan facilities southeast of Earls Barton, fishing west of Ringstead, watersports and fishing at Ditchford Lakes and Meadows, again on the site of a restored gravel pit, and scattered camping and caravan sites. A section of the Nene Way follows the valley floodplain together with a number of minor footpaths.

18 BROAD RIVER VALLEY FLOODPLAIN

The main area of historic interest within the valley is the site of the medieval village of Mallows Cotton, west of Raunds. The site is located on a slightly raised gravel peninsula on the edge of the floodplain and comprises a series of earthworks indicating that the hamlet comprised a series of building plots set about an open space or 'green' which was approached along a sinuous trackway branching from Cotton Lane, the former road from Higham Ferrers to Thrapston. To the south and west, the hamlet was flanked by an embankment and a relict stream channel, that was once occupied by the Cotton Brook. A less substantial earthwork to the northeast indicated an earlier course of the stream, and although no earthworks are visible to the north, an excavated hedgeline is indicative of the edge of a major river channel that was a branch of the Nene. Mallows Cotton formed one of three villages in the area; West Cotton and Mill Cotton were largely destroyed during gravel extraction on the 1970s.



Willow trees by river at Denford

18e The Nene – Woodford Mill to Thrapston

The Nene – Woodford Mill to Thrapston Character Area is one of the shortest sections of the Nene Broad River Valley Floodplain. Here, the River Nene is bordered by relatively shallow banks with reeds and rushes occupying the broad, flat floodplain. In some sections, however, the floodplain landscape is limited by the rising landform of the Rolling Ironstone Valley Slopes and Limestone Valley Slopes. The river is deep and follows a more meandering course within the landscape compared to other character areas, though it retains a still, tranquil and rural character. Improved pastoral fields with grazing cattle characterise the landscape with horse paddocks and pockets of under grazed rougher pasture.

Woodland cover is limited to scattered willows and ash lining the course of the river. The succession of overgrown hedgerows within the floodplain, and woodland and hedgerows in distant views, combine to create the sense of a well-wooded landscape and obscure views to distant hills. The generally open character of the river floodplain allows some extensive views along the valley bottom. Glimpsed vistas are also possible to the road network that lies beyond, and on the fringe of the floodplain.

Settlement is extremely limited and includes only occasional dwellings confined to the southern boundary west of Ringstead, and northern boundary southwest of Thrapston. There are no roads within the character area, and dwellings are accessed via roads located on the area's boundary. Glimpses of small settlements located adjacent to the floodplain are possible, including prominent church spires such as the spire at Woodford. The Nene Way, and a number of minor footpaths, provide the only access to the floodplain, with the river hosting recreational opportunities such as boating, and a dry dock at Woodford Riverside. Evidence of the industrial past of the area is apparent in the line of a dismantled railway cutting across the valley landscape, and which provides the line of a public footpath beyond the floodplain.

18 BROAD RIVER VALLEY FLOODPLAIN



Meandering river towards Achurch



Aldwincle to marina

18f The Nene – Thrapston to Cotterstock

The Nene – Thrapston to Cotterstock Character Area contains not only the meandering, largely naturalised course of the River Nene, but also Harper’s Brook, Brancey Brook, significant lake areas at Titchmarsh Local Nature Reserve and smaller lakes around Barnwell Country Park. Banks of irises, rushes and reeds are frequently located along the edge of the river and, although predominantly open, the river course is marked in areas by scattered willow shrubs and oak and ash trees. A combination of both arable and pastoral fields characterise the area beyond the river edge, with a predominance of medium scale semi improved and improved pastures adjacent to the river, and larger arable fields on the edge of the floodplain next to surrounding landscape types. Pastoral fields are grazed by both sheep and cattle.

Although limited within the character area, broadleaved copses are evident, in particular around the edge of large lake areas such as those found at the Titchmarsh Local Nature Reserve, where their location also limits views along the valley. New willow planting along the course of the river increases tree cover within the area and limits views beyond the river in places. Beyond the character area, woodland in surrounding landscape types, including woodland at Lilford Park in the Limestone Valley Slopes, creates a well-wooded backdrop to the valley, and this, along with a number of well treed boundaries combine in places to create the impression of a well treed character within the floodplain. However, despite such tree cover, the landscape retains a sense of openness.

Settlement within the floodplain is limited, including only scattered dwellings confined mainly to the edge of the character area, although glimpsed views are possible of settlement on the edge of the floodplain. Other development includes marinas and jetties such as those found to the east of Islip, around Titchmarsh Local Nature Reserve and Barnwell Country Park. Both Barnwell and Titchmarsh are sites of former gravel extraction, with the former providing picnic meadows, waterside walks and a site for wildlife, and the latter providing a valuable 73 acre site of importance for wildfowl. Caravan and camping facilities and fishing are also available within the floodplain.

Access within the floodplain is restricted to a number of minor roads, often single track, crossing the river at right angles, and the A605 east of Oundle, although views of the road are largely screened. The Nene Way provides the only means of access to the riverside, along with other minor footpaths, one of which utilises the line of a dismantled railway passing through the floodplain. However, some areas remain largely inaccessible.

18 BROAD RIVER VALLEY FLOODPLAIN



Elton Willow Brook



Bluebell Fishing Lakes

18g The Nene – Cotterstock to Warmington

The Nene – Cotterstock to Warmington Character Area between Cotterstock and Warmington is one of the shortest stretches of the Broad River Valley Floodplain character areas within the county. As is typical of the landscape type, the river is wide and gives the impression of being slow flowing. In some sections, it is deep and often bordered by rushes, irises and scattered willow, but retaining a predominantly open character. The extent of the floodplain is defined by the rising landform of the valley sides and villages within the surrounding landscape types. Large fields of improved pasture with grazing sheep, and arable fields with set aside strips predominate to characterise the floodplain landscape, with pockets of set-aside land and fields of calcareous, unimproved floodplain landscape, often adjacent to the river. Overgrown, well treed hedgerows and post and wire fences define the field boundaries. Drainage ditches also often mark field boundaries, particularly adjacent to roadsides.

The floodplain itself is characteristically unsettled, except for scattered dwellings on the periphery of the area including Church Farm, Perio Mill and Warmington Grange. However, small village settlements are located along the edges of the floodplain. One such example is the linear village of Fotheringhay. The use of limestone as the predominant building material within the village, together with stone slate roofs and stone walls, reflects the close proximity of underlying limestone geology in the adjacent Limestone Valley Slopes landscape type.

Coinciding with such settlements are examples of historic crossing points, including Fotheringhay Bridge, where the single-track stone bridge provides an important historic feature of the floodplain landscape. Within the village, beyond the floodplain, other historic features include the visually prominent Norman motte and bailey castle at Castle Hill, and the site of the Priory and church, which also provides a prominent visual landmark with its towering spire.

Access to the floodplain is extremely limited with vehicular access restricted to a single road and minor roads marking the floodplain boundary; pedestrian access is limited to a small stretch of the Nene Way, again along the boundary. River tourism is apparent in the form of boating with fishing prominent around Bluebell Lake. A caravan park is also located around Castle Hill. While some panoramic views are possible along the river channel, longer views are often intercepted by intervening vegetation such as well treed hedgerows of a mixed deciduous composition, and the surrounding landform that rises gently above the floodplain.

18 BROAD RIVER VALLEY FLOODPLAIN



Elton Willow Brook



Nene Way at Nassington

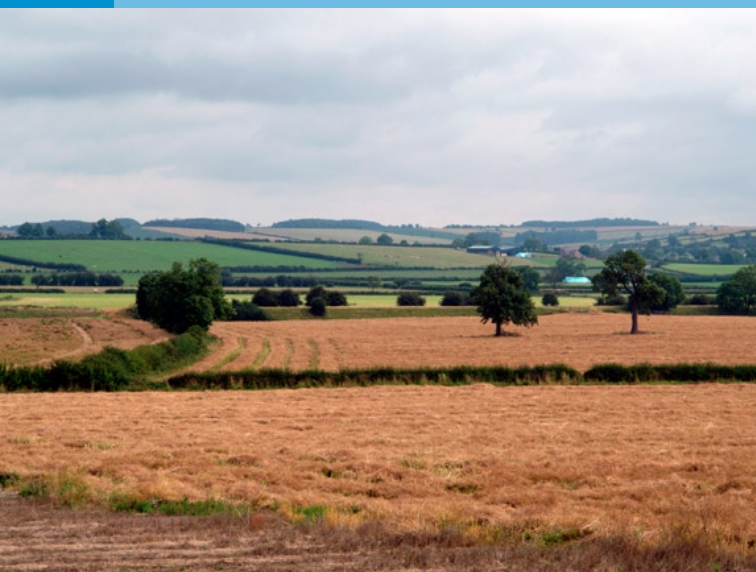
18h The Nene – Warmington to Wansford

The Nene - Warmington to Wansford Character Area comprises the most northerly section of the sequence of Broad River Valley Floodplain character areas within the county. The area is characterised by a predominance of medium sized semi improved pastures defined by overgrown gappy hedgerows, frequently reinforced with post and wire fencing. The cattle that graze a number of the fields frequently create significant poached areas along the riverside where no boundaries are present. Many fields are un-stocked, however, with rank growth encroaching. Bordering the main river channel is riparian vegetation of rushes, reeds and willow trees.

Despite the location of villages such as Nassington and Yarwell on the edge of the floodplain, development within the floodplain itself is limited to only a single dwelling comprising Yarwell Mill. Glimpsed views are possible of these villages, however, including the church spire at Nassington that creates a prominent horizon feature. Low stone walls surround the villages and reflect the close proximity of surrounding limestone landscapes and the availability of stone for buildings and walls. Wide panoramic views are possible along the river, with only intervening vegetation limiting views in some places, in particular along the dismantled railway, and treed and overgrown boundaries. The hills of the surrounding landscape types define the edge of the floodplain, creating a backdrop and containing views. Although the river provides a navigable watercourse, access in general to the watercourse and the river edge is very limited with the only means of accessing the river being via a footpath, the Nene Way, which crosses the river over a concrete bridge.

Historic evidence within the landscape includes the location of a trackway along the route of the Nene Way, evident by raised fields either side of the route. Surrounding the trackway are fields of ridge and furrow. Beyond the Nene Way, recreational opportunities within this quiet rural landscape are limited to water recreation, including boating and fishing and camping, and caravan and picnic facilities around Yarwell Mill. The valley landscape extends beyond the county boundary into neighbouring Huntingdonshire. The attractive limestone village of Wansford marks the boundary. This is a Conservation Area and contains a number of important historic buildings, often of coarsed limestone rubble with freestone quoins. The most prominent structures include the Haycock Hotel, built as a posting house in 1632 and the stone bridge, dating from 1577, which spans the River Nene falls. The Paper Mills pub is also a focal point in the village.

18 BROAD RIVER VALLEY FLOODPLAIN



Welland Valley



Weston by Welland

18i The Welland – Market Harborough to Cottingham

Located on the northern county boundary, the Welland – Market Harborough to Cottingham Character Area comprises a broad, flat floodplain extending from the northeastern edge of Market Harborough to Cottingham. The Broad River Valley Floodplain in this location forms part of the more extensive Welland Valley that extends into Leicestershire. For the majority of its course within the character area, the river marks the county boundary, although the area also incorporates a tributary of the Welland to the south. In general, the watercourses are inconspicuous within the landscape. Whilst the floodplain is largely flat, two low, hillocks create prominent localised landmarks within the floodplain, to the west and north of East Carlton. The hillocks represent areas of siltstone separated by erosion from the main mass of the Undulating Hills and Valleys landscape type to the south, with the most southern mound capped by sand and gravel and the lower, northern mound capped with diamicton. A prominent second world war pill box is located on the summit of the southern hillock, whilst on the northern hillock is Gaulsborough Spinney. The area is characterised by both arable and pastoral fields of varying sizes, although the latter are more abundant in some areas. Pastoral fields vary in quality from highly improved pasture to scrubby, undergrazed areas and set-aside land.

The main settlement in the character area is the northern edge of Stoke Albany. It comprises a compact linear settlement that has principally extended along the sloping valley sides of the Undulating Hills and Valleys. Beyond this lies a rural landscape of isolated farms and dwellings. Although views within the floodplain are characteristically open, the hillocks and occasional copses limit some localised views. Views into the county are also restricted by the rising landform of the Undulating Hills and Valleys landscape type. As is typical of the floodplain landscape, access is relatively limited with minor roads often crossing the river at right angles, although a number are also located along the lower valley slopes. Main roads are restricted to small sections of the A6(T) and A4304 at the southern end of the character area. Pedestrian access is also limited to infrequent rights of the way and limited sections of the Midshires Way, Jurassic Way and Macmillan Way. Reflecting the industrial heritage of the landscape, a section of dismantled railway is located adjacent to the county boundary.

18 BROAD RIVER VALLEY FLOODPLAIN



Harringworth



Harringworth Viaduct

18j The Welland – Cottingham to Wakerley

The Welland - Cottingham to Wakerley Character Area is located along the northwestern edge of the county where the River Welland, in places forms the county boundary. Within this area, the floodplain landscape is more extensive on both side of the river. The area is characterised by a combination of medium to large-scale arable and pastoral fields defined by hedgerows of varying condition and post and wire fences. The flat floodplain landscape immediately bordering the shallow and narrow course of the Welland is dominated by semi improved pastures. Below the Welland Viaduct, semi improved fields again predominate as the main land use, although large areas are used for horsiculture with conspicuous white temporary fencing enclosing paddocks, often resulting in an untidy and fragmented appearance to the landscape. The Welland Viaduct itself forms a prominent local landmark. Completed in 1878 to carry the London and Midland Railway between Kettering and Manton, the viaduct is three quarters of a mile in length. It is still in use today for goods traffic and occasional passenger services at weekends. The church spires of numerous villages on the edge of the floodplain, including Lyddington and Caldecott, also provide local landmarks. Despite Although there are numerous settlements on the edge of the floodplain and rising valley sides, settlement within the floodplain itself is, by contrast, limited to a pattern of scattered farms and dwellings, the largest concentration of which is located on northern edge of Wakerley village. Wide panoramic views are possible along the length of the floodplain, but farmed slopes to the northwest and southeast visually contain the valley and limit long distance views. As is consistent within the landscape type, access within the floodplain is limited to a single minor road on the edge of Gretton, with the A6003 providing access to the Ironstone village of Rockingham. Pedestrian access is also extremely limited with only a small number of minor rights of way and limited sections of the Jurassic Way crossing the valley.

18 BROAD RIVER VALLEY FLOODPLAIN



Welland at Collyweston Bridge

18k The Welland – Tixover to Wothorpe

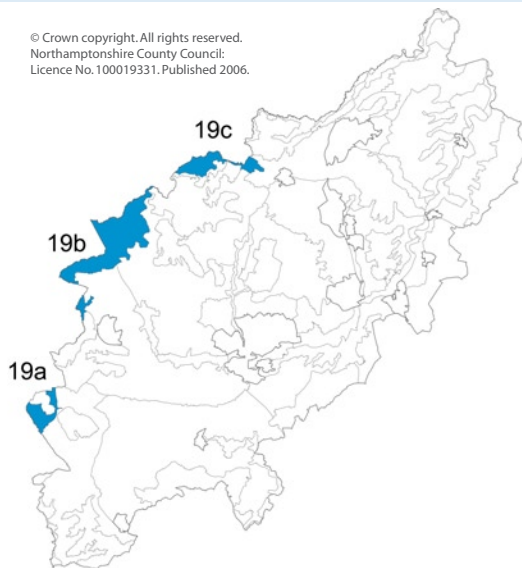
Fragmented sections of the Welland - Tixover to Wothorpe Character Area are located along the extreme northern edge of the county boundary, and also extend along the northwestern edge. The river channel defines the county boundary. In this lowland river landscape, the river within the flat floodplain landscape is not a dominant feature. A combination of arable land, improved and semi improved pasture characterise the landscape along with pockets of set-aside land, often resulting in a colourful landscape. Fields within this riparian landscape are defined by both clipped and overgrown hedgerows, which are often gappy in places and reinforced with post and wire fences. Post and wire fences also predominate along the river edge with willow trees marking the boundary in places. Elsewhere there are few trees in the landscape.

There is no settlement within the floodplain. Beyond the county boundary, however, scattered farms and dwellings are often located on raised land towards the edge of the floodplain and contribute to the character of the valley. Glimpsed views of the edge of settlements on the Farmed Scarp Slopes are possible, and also to prominent church spires such as the one within Collyweston village, which is a notable landmark features. The rising landform of the farmed slopes encloses the Welland Valley and limits views into the county. Only a single road crosses the floodplain landscape providing access to Collyweston. Otherwise, access is restricted to a small number of rights of way, including a limited stretch of the Jurassic Way / Hereward Way.

19 BROAD UNWOODED VALE

CHARACTER AREAS

- 19a Boddington Vale Farmland
- 19b Vale of Rugby
- 19c Welland Vale



Broad Unwooded Vale, Braybrooke

KEY CHARACTERISTICS

- Extensive landscape defining the western boundary of the county;
- expansive long distance and panoramic views across the open vale landscape;
- landscape drained by numerous small watercourses that flow within shallow undulations into the rivers and streams on the county boundary;
- minor undulations gain prominence in an otherwise broad flat landscape;
- Predominance of Lias Group Charmouth Mudstone and Blue Lias formation geology, which extends north and westwards and underlies much of the lowland landscapes of Dunsmore and Feldon, and the Leicestershire Vale;
- woodland cover extremely limited, with tree cover confined mainly to hedgerow trees and overgrown hedgerows;
- productive arable and pastoral farmland in generally equal proportions in fields of varying size;
- hedgerows generally low and well clipped, although limited sections show evidence of decline with reinforcing post and wire fences;
- sparsely settled with small villages and isolated farms and dwellings prevalent, although large urban areas are evident in distant views;
- significant communication routes evident, including motorways and major 'A' roads;
- infrastructure elements such as telecommunication stations provide significant vertical elements in an otherwise flat landscape; and
- recreational opportunities generally limited despite the close proximity of large urban areas.

19 BROAD UNWOODED VALE

LOCATION AND INTRODUCTION

The Broad Unwooded Vale landscape character type forms part of the extensive lowland vales that are located along the western and northwestern perimeter of Northamptonshire. The vale extends from Appletree to the north of Upper Boddington, then re-commences south of Braunston to form a more extensive area extending to the northwest of Welford, with the final area extending from the east of Husbands Bosworth to Braybrooke. Within the county boundary, the areas of land classified as the Broad Unwooded Vale are relatively limited, confined to small fragmented sections generally located at the base of the Undulating Hills and Valleys, with the exception of the northernmost area, which lies at the base of the Farmed Scarp Slopes.

PHYSICAL INFLUENCES

Geology and Soils

The vale landscapes are underlain predominantly by soft Lias Group Charmouth Mudstone Formation mudstones and Blue Lias formation mudstones. Mudstone, limestone and siltstone dominate over most of the landscape type, with small pockets of siltstone, mudstone and limestone evident on a slightly more elevated area of land northeast of Kilsby.

Drift deposits vary across the landscape type, with progressively less coverage the further south in the landscape. Frequently occurring materials include sand and gravel with narrow bands of clay and silt, which are evident along the lowest lying areas of land. Small pockets of boulder clay are also scattered across the landscape type, capping the more elevated areas of land. The most southern area of Broad Unwooded Vale is dominated by slowly permeable, seasonally waterlogged clayey soils, with similar fine loamy over clayey soils, and moderately sized areas of stoneless clayey soils, in places calcareous, and variably affected by groundwater. Smaller pockets of slowly permeable, seasonally waterlogged fine loamy over clayey, fine silty over clayey, and clayey soils are also evident. These are predominant within the more northern area of the Broad Unwooded Vale, along with smaller areas of slowly permeable, seasonally waterlogged clayey soils with similar fine loamy over clayey soils. Also evident in the area are soils characterised by fine loamy over clayey and clayey soils, with slowly permeable subsoils and slight seasonal waterlogging, and slowly permeable calcareous clayey soils.

Landform

Glacial deposits are of sufficient thickness to create a smooth, generally broad and flat landscape with minor undulations evident, in particular on the rising land adjacent to the surrounding landscape types within the county. The rising landform of the surrounding landscape types provides a backdrop to the broad vale landscape, whilst beyond the county boundary the landscape is remarkably flat. Across the vale, landform rises from a low point of 83m ASL along the course of Rains Brook, and rises to a high point of approximately 150m ASL around Kilsby, although generally the more northern areas of the Broad Unwooded Vale are lower.

Hydrology

Draining the Broad Unwooded Vale within Northamptonshire are numerous watercourses that flow into rivers, streams and brooks on the county boundary and beyond. Most notable are the River Welland, River Avon and Rains Brook into which flow numerous minor tributaries weaving through the vale. The influence of these streams on landscape character is subtle, with watercourses flowing along the base of minor undulations in the landscape, and often only visible at crossing points. Also flowing through the vale are stretches of the Oxford Canal and Grand Union Canal along the boundary of the landscape type. Human intervention on the hydrological characteristics of the landscape is evident, although limited. Stanford Reservoir, which straddles the counties of Northamptonshire and Leicestershire in the valley of the River Avon, is located in the Vale of Rugby. Watercourses and other hydrological features are often difficult to discern in the landscape with streams that are small in scale and others, such as the River Jordan, that are dry during warmer months of the year.

Land Use and Land Cover

Across much of the landscape, there is a roughly equal balance of arable and pasture farming. Pastures of calcareous grassland are also evident in small pockets across the landscape, with a more significant area located at Rugby Radio Station. Improved and semi improved pastures are often frequent surrounding village settlement, and along the line of watercourses with grazing sheep, cattle, and on occasions, horses. Although the distribution of arable and pastoral land is generally equal, in the Welland Vale arable cereals and horticulture predominate slightly. Both grazed pastures and arable land are evident in views, often resulting in a simple and unified landscape, although pastoral land uses also add texture to the open, flat landscape.

Woodland and Trees

Woodland cover is extremely limited across the landscape type and not a characteristic feature, with overgrown hedgerows and occasional hedgerow trees providing the main tree cover. Species frequently include oak and ash. Small copses are evident, however, including areas of coniferous, deciduous and mixed planting. Railways courses are frequently well treed with tree groupings also evident along the course of canals. Although generally limited, woodland cover is more extensive in the Welland Vale with small woodland copses often closely associated with minor watercourses, and Hothorpe Hall and Thorpe Lubenham Hall.

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Woodlands are often visible in surrounding landscape types, in particular the well wooded Hothorpe Hills on the Farmed Scarp Slopes, forming a backdrop to the vale landscape. When combined with hedgerow and field trees, this often leads to the impression that the landscape is more wooded than it actually is.

HUMAN INFLUENCES

Buildings and Settlement

Settlement across the Broad Unwooded Vale is sparse, limited to small scale village settlements and isolated farms and dwellings. The pattern of villages varies across the landscape type. Whilst villages in the Vale of Rugby are generally compact, and have developed around a road junction, examples of linear villages can be found in the Welland Vale. The Boddington Vale Farmland is extremely sparsely settled with only a single village, comprising Lower Boddington, which has developed along two roads at the foothills of the Low Pastoral Hills.

The wider landscape beyond the villages is sparsely settled with isolated houses and farmsteads occupying roadside positions or a more secluded location at the end of a short access track off the main route. Despite the limited settlement within the landscape type, urban influences are apparent beyond the county boundary, including Rugby and Market Harborough.

Heritage Features

Remnants of deserted villages such as those of Braunstonbury, Onley and Stanford and field patterns, are indicative of former periods of occupation and activity stretching back to the medieval period. In the wider landscape there are few heritage features, with the exception of scattered fields of ridge and furrow across the landscape type and churches that also provide important local landscape features in this largely flat and broad landscape.

Boundaries and Field Patterns

A predominance of low, well clipped hawthorn hedgerows enclose fields of varying size across the landscape type. Whilst the majority retain a well managed appearance, others have become gappy or overgrown and show evidence of decline. Post and wire and wooded post and rail fencing reinforce a number of boundaries surrounding pastoral fields. A small number of fields have no boundary vegetation, however, and in such areas post and wire fences predominate to enclose pastures. The occurrence of hedgerow trees varies across the landscape. In a number of places they are more abundant and provide reasonable tree cover. In other areas, however, tree cover is extremely sparse, emphasising the broad and open nature of the vale.

Field sizes vary considerably across the Broad Unwooded Vale from small to large scale enclosures, although the majority are either regular or sub regular in shape, with only limited areas of discontinuous field patterns. The northern section of the Vale of Rugby is dominated by arable fields that are large in scale with a concentration of discontinuous fields.

Communications and Infrastructure

Roads through the vale landscape vary, with a number of areas accessed via a network of minor roads, and other areas widely accessible through both motorways and major 'A' roads. For example, access to the Boddington Vale Farmland and Welland Vale is restricted to a network of minor country roads connecting settlement within the landscape, with areas that remain inaccessible to vehicles. Roads through the Vale of Rugby are more significant in scale, however, and intrusive within the landscape, notably the M1 and M45 motorways, and a number of 'A' roads such as the A14(T) and A5(T). It is in this area that canals and railways also contribute to the character of the landscape and emphasise the close proximity of, and influence from surrounding urban areas.

Forming prominent vertical elements in the landscape are the abundance of telecommunication masts adjacent to the M1 at Rugby Radio Station, and individual masts in surrounding landscape types on prominent hill top locations.

Recreation

Despite the close proximity of large urban areas, there are only limited recreational opportunities across the Broad Unwooded Vale. Numerous rights of way pass over the vale landscape, the most notable being stretches of the Midshires Way, Macmillan Way, Jurassic Way and the Oxford Canal Walk. Lakes and ponds offering fishing facilities are also evident within the landscape type.

AESTHETIC AND PERCEPTUAL QUALITIES

The Broad Unwooded Vale is a simple and unified landscape, although intrusive vertical features such as masts provide distracting features. Where particularly long distance views are possible over this broad landscape, a sense of openness and exposure prevails. Views are particularly expansive beyond the county boundary, as the rising landform and vegetation of the surrounding landscape types can limit views into Northamptonshire. Infrastructure and communications provide significant manmade features which, on occasions, result in an unsettling and noisy landscape. Despite such features, areas of the landscape remain inaccessible.

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LOCAL DISTINCTIVENESS, LANDSCAPE CONDITION AND LANDSCAPE CHANGE

Overall, the landscape is well maintained and managed. Strength of character diminishes, however, where field boundaries have become gappy or overgrown. At a county scale, the landscape is generally unremarkable, although wide panoramic views are important to local distinctiveness and character. The development of significant manmade features, including motorways and radio stations, has had a significant impact on landscape character in recent years. Despite significant changes in the landscape, there is evidence of occupation dating from the medieval period, most notably in the form of the sites of medieval villages and areas of ridge and furrow.



Footpath by Springfield Farm

19a Boddington Vale Farmland

The Boddington Vale Farmland Character Area is located on the western edge of the county boundary. It is bordered to the east by the Undulating Hills and Valleys, and surrounds the Low Pastoral Hills that extends westwards beyond the county boundary into Warwickshire. The surrounding landform of hills and valleys provides an elevated backdrop to the vale landscape. Boddington Reservoir is a notable feature within the character area, located on the eastern edge of the character area, at the base of the Low Pastoral Hills. In contrast to other reservoirs within the county, tree cover is restricted to occasional scattered trees around the periphery. Canal feeders and streams are also located within the area.

The broad, flat landscape is characterised by a combination of arable and pastoral land. Fields of improved pasture, often with grazing sheep, interspersed with areas of calcareous grassland extend across the lower slopes of the surrounding Low Pastoral Hills, and into the vale landscape. Although field sizes vary, the majority are medium to large with only limited small to medium sized fields. Typical of the landscape type, woodland cover is extremely limited, although a small linear coniferous copse is present adjacent to the canal feeder in the northern section of the area. However, some tree cover within the landscape is provided by overgrown hedgerows, occasional hedgerow trees, poplars along the course of the dismantled railway, and trees along access tracks.

Settlement within the character area is sparse with only the village of Lower Boddington located adjacent to the lower slopes of the Low Pastoral Hills. Beyond this are isolated farms and dwellings confined to the southwestern corner located either along roadsides, or accessed via tracks. The outer edges of Upper Boddington are also visible on the horizon. Access across the landscape is limited to a number of minor roads.

Recreational opportunities in the character are confined mainly to Boddington Reservoir. The reservoir is used for dinghy sailing, cruising and windsurfing. Boddington Meadow Nature Reserve is located on the northwestern bank of the reservoir. Covering an area of 2.4 hectares, the land was traditionally managed as a hay meadow, and as an area that has never been ploughed, it is rich in its range of flora and fauna. A limited number of public footpaths are located within the area.

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River Avon at Stamford



Across the vale from Stamford Moor

19b Vale of Rugby

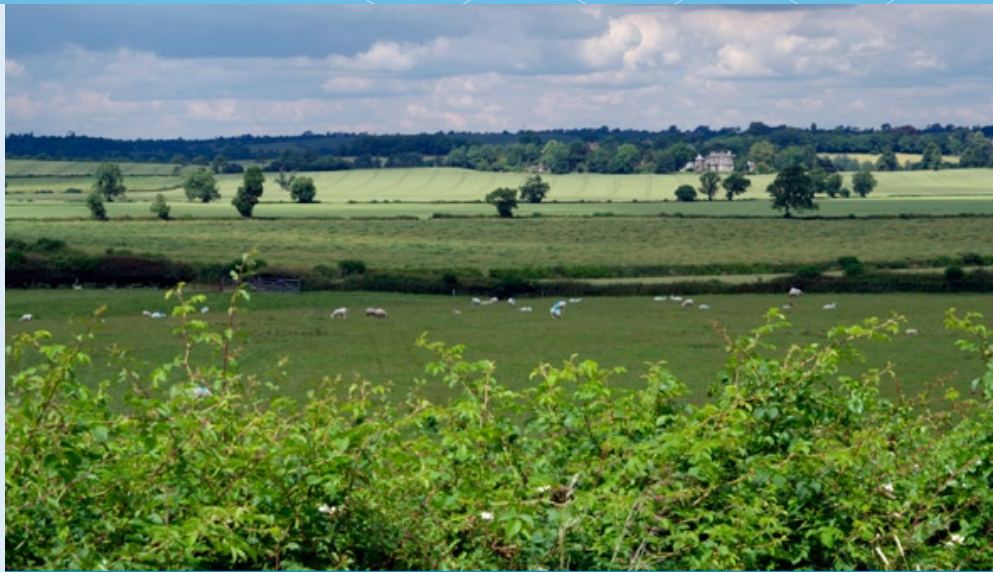
Located on the western edge of Northamptonshire, the Vale of Rugby Character Area is the most extensive area of Broad Unwooded Vale. The area occurs as two fragmented sections of a larger character area that extends in a westerly direction beyond the county boundary and stretches from Braunston to the northwest of Welford. The largely flat and open landscape allows expansive views, although the Undulating Hills and Valleys restrict views to the east. Passing through the southern section of the area, south of Crick, are sections of the Grand Union Canal and Oxford Canal. North of Crick, a more extensive section of the Grand Union Canal defines the eastern boundary. Small streams also pass through the largely flat landscape creating localised shallow undulations. Located on the northwestern boundary is Stanford Reservoir that straddles the borders of Leicestershire and Northamptonshire, although the majority lies within the latter. It is situated in the valley of the River Avon and a valuable wildfowl habitat.

Land cover is typical of the vale landscape, displaying a mixture of arable cereals and horticulture and improved pastures with grazing sheep, cattle and horses in fields of varying size. North of the A14(T), however, arable land in large fields predominates. Between the M1 and A5(T) and around Nortoft Lodge Farm, significant areas of calcareous grassland also occur. Rugby Radio Station is also located within this area of calcareous grassland that extends beyond the county boundary. Typical of the landscape type, woodland cover is sparse, confined mainly to broadleaved copses including Crick Covert, Lilbourne Gorse, Sybolds Spinney and a large woodland block adjacent to the dismantled railway, south of Stanford Reservoir. Other tree cover in the character area is restricted to occasional field trees, hedgerow trees, frequently of oak and ash and occasional planting along both the Oxford and Grand Union Canal.

The character area is sparsely settled, with the villages of Yelvertoft and Lilbourne comprising the main settlement within the floodplain. Whilst both villages are compact and developed around road junctions, the former is larger in size. Beyond the villages are scattered farms and dwellings, which become more sparse north of the A14(T). Despite limited settlement within the character area, beyond the county boundary the city of Rugby is visible on the horizon. Urbanising influences are also significant in the landscape, and intrusive within many views. Both the M45 and M1 pass through the vale, along with the A14(T), A5(T), A428 and A45(T), all busy roads within the area. Adjacent to the M1, Rugby Radio Station, which extends beyond the county boundary, is highly visible and intrusive with the cluster of masts creating a prominent local landmark. Despite the coverage of main roads, some areas do remain largely inaccessible, in particular north of the A5(T). Overall, however, a simple and unified character prevails, despite distracting infrastructure features.

A number of heritage features are evident within the character area. Located on the western boundary adjacent to the River Leam is the site of the medieval village of Braunstonbury, with the site of the medieval village of Only lying on the banks of the Rains Brook, and the site of the medieval village of Stanford within the Avon valley. Fields of ridge and furrow are extensive and scattered throughout the area.

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Welland Vale

19c Welland Vale

The Welland Vale Character Area is most northern of the Broad Unwooded Vale character areas, and is located to the south and southwest of Market Harborough, and forms part of a more extensive character area stretching beyond the county boundary. Defining the northern edge is the River Welland, whilst to the south an area of Farmed Scarp Slopes forms a backdrop to the Vale landscape. Although largely flat, subtle localised undulations are apparent along the base of the scarp slopes with two small hills located to the southwest of Hothorpe, and west of Marston Trussell. These reach a height of 138m ASL and 121m ASL respectively. The majority of the area lies between 90m ASL and 110m ASL, however, with the higher areas generally confined to the southern edge. Although the River Welland is the main river within the area, the River Jordan flows through the area to the northwest of Braybrooke.

Characterising the landscape is a combination of arable and pastoral land, though the former does dominate with both arable cereals and horticulture. Pastoral fields are, in general, closely associated with village settlement and scattered farmsteads, though areas of improved pastures can be found to the north of Hothorpe Hills. Although field sizes vary throughout the area, the majority have a sub regular shape with occasional fields that are regular. Woodland cover in the character area is limited, though more extensive than other areas of the Broad Unwooded Vale. Confined mainly to broadleaved and mixed woodland with only scattered areas of coniferous planting, woodland is often closely associated with minor watercourses and Hothorpe Hall and Thorpe Lubenham Hall. South of the area, the well wooded Hothorpe Hills on the Farmed Scarp Slopes also create a greater sense of woodland cover within the Vale landscape and a sense of enclosure to the south. Trees located along the course of the railway and scattered ash and oak within hedgerows further contribute to overall tree cover within the area.

A rural character prevails across the Vale landscape, with only limited settlement present. The linear village of Marston Trussell is the largest settlement and, although the larger settlement of Market Harborough and villages of Lubenham, East Farndon and Braybrooke are located immediately beyond the character area, a rural character is retained. Beyond this lies a landscape settled by scattered farmsteads and isolated dwellings. A network of minor country roads provides access to the area, connecting settlements and dwellings, and although the roads are minor, traffic levels on a number are high. Major roads are confined to a limited stretch of the A508, south of Market Harborough. High voltage pylons are also intrusive within this simple and unified landscape, in particular, to the northwest of Braybrooke.

A number of rights of way are present throughout the area, and include sections of the Jurassic Way, Brampton Valley Way, Midshires Way and Macmillan Way. Heritage features are limited to scattered fields of ridge and furrow. Although settlement within the area is limited, prominent church spires, including those found at Lubenham, Theddingworth and Marston Trussell provide important local landscape features.

4.1 KEY LANDSCAPE CHARACTER ASSESSMENT TERMS

Analysis – the process of dividing up the landscape into its component parts to gain a better understanding of it.

Approach – the step-wise process by which landscape assessment is undertaken.

Assessment – term to describe all the various ways of looking at, analysing, evaluating and describing the landscape.

Character – a distinct, recognisable and consistent pattern of elements in the landscape that makes one landscape different from another, rather than better or worse.

Characteristics – elements or combinations of elements, which make a particular contribution to distinctive character.

Characterisation – the process of identifying areas of similar character, classifying and mapping them and describing their character.

Elements – individual components, which make up the landscape, such as trees and hedges.

Features – particularly prominent or eye catching elements, such as tree clumps, church towers, or wooded skylines.

Land cover – combination of land use and vegetation that cover the land surface.

Landform – combinations of slope and elevation that produce the shape and form of the land surface.

Landscape – primarily the visual appearance of the land including its shape, form and colours. However, landscape is not purely a visual phenomenon. The landscape relies on a range of other dimensions including geology, landform, soils, ecology, archaeology, landscape history, land use, architecture and cultural associations.

Objective – method of assessment in which personal feelings and opinions do not influence characterisation.

Subjective – method of assessment in which personal views and reactions are used in the characterisation process.

4.2 OTHER TECHNICAL TERMS

Alluvium – sedimentary deposits resulting from the action of rivers, including those laid down in river channels, floodplains, estuaries and lakes.

Ancient woodland – land continuously wooded since AD 1600. It is an extremely valuable ecological resource, usually with a high diversity of flora and fauna.

Assarting – the process of clearing woodland or waste land for cultivation, associated particularly with the 12th and 13th Centuries.

Bronze Age – (c. 2,500 – 750 BC) a cultural phase in humankind's evolution when alloying of copper and tin was perfected. Metalworking technology and new types of flint tool and pottery design were introduced at the start of this period. Changes in society were reflected in the emergence of new burial techniques, particularly round barrows. In the Middle Bronze Age, cremation replaced inhumations and in the late Bronze Age social and economic changes led to the abandonment of old funerary rites in favour of less traceable rites.

Calcifuge – refers to plants that prefer acidic soils and cannot exist on chalky or alkali soils.

Carr – woodland in waterlogged terrain. Characteristic species include alder, willow and sallow.

Cob – Vernacular building material used in parts of the county until the wide availability of brick in the 18th Century. Cob consists of sub-soil with an even distribution of clay (between 10 - 25%) mixed with plant fibres. The clay binds the silt, sand and gravel together to form a durable and waterproof surface.

Coppicing – the traditional method of woodland management in which trees are cut down near to the ground to encourage the production of long, straight shoots that can be harvested.

Cornbrash – the name applied to the uppermost member of the Bathonian stage of the Middle Jurassic formation in England. It is an old English agricultural name applied in Wiltshire to a variety of loose rubble or 'brash' which, in that part of the country, forms a good soil for growing corn. The name was adopted by William Smith for a thin band of shelly stone, which, in the south of England, 'breaks up in the manner indicated'. Although only a thin group of rocks (10—25 ft.), it is remarkably persistent; it may be traced from Weymouth to the Yorkshire coast. The Cornbrash is a very fossiliferous formation; the fauna indicates a transition from the Lower to the Middle Oolites, though it is probably more closely related to the beds above than to those below.

Diamicton - the unlithified equivalent of a diamictite, **itself a** lithified, conglomeratic, siliciclastic rock that is unsorted, with sand and / or coarser particles dispersed through a mud matrix. Boulder clay is an example of diamicton.

Domesday Book – conceived by William the Conqueror at Christmas 1085 in Gloucester, the survey was the most comprehensive and detailed record compiled anywhere in Europe in the Middle Ages. The survey's primary purpose was to provide maximum yield from land tax. The name arose in the 12th Century to signify, as the day of judgement, there could be no appeal from its verdict.

Fissile – rocks that are easily split, for example Collyweston Slate

Fossiliferous – term used to describe rocks rich in fossils, the remains of living organisms preserved by natural causes in crustal rocks.

Geomorphology – the scientific study of the origin of landforms.

Geology – the study of the origin, structure, composition and history of the Earth together with the processes that have led to its present state.

Glacial – term used to describe a cold phase during an ice age.

Holocene – term used to describe the whole of recent life and referring to all of the time that has elapsed since the Pleistocene. It is one of the two epochs that make up the Quaternary. The date of the beginning of the Holocene is generally agreed to be 10,000 BP.

Hillfort – any hilltop fortress although the term usually applied to defensive sites of the Late Bronze Age or Iron Age. Some hillforts may have been permanent settlements, but many were temporary refuges.

Iron Age – (c. 750 BC – AD 43) a cultural phase of humankind's evolution when technical improvements in iron-working enabled iron tools and weapons to replace those of the preceding Bronze Age. Population growth led to competition for land and the development of a more territorial society. Improved farming technology and scarcity of land brought about the cultivation of heavier and poorer soils.

Jurassic – the middle period of the Mesozoic era, preceding the Cretaceous, succeeding the Triassic, and named after the Jura Mountains of central Europe. It commenced about 195 million years ago and terminated 135 million years ago during which time dinosaurs reached their maximum size. Rock strata consist of varying thicknesses of clays, limestones and some sandstones that were deposited in fluctuating shallow seas, interspersed with periods of estuarine and fluvial deposition. The principal divisions present in the Cotswolds are (in ascending order) Lias Group (clays and limestones), Inferior Oolite (limestones, clays and sandstones) and Great Oolite (limestones)

Lynchets - created either unintentionally by ploughing or intentionally in the hilly landscape to create terraces suitable for farming. They were often formed in areas where there was pressure to use even steeply sloping land for farming. Lynchet patterns can be seen in the landscape on steep slopes where they are preserved in areas of permanent pasture.

Mesolithic – (c 8,000 – 4,000 BC) an archaeological term meaning 'middle stone' age and used to describe the culture achieved during the early Post Glacial when mankind had moved from herd-hunting practices of the upper Palaeolithic, but had not yet discovered or adopted the use of agriculture.

Mesotrophic – water containing a normal amount of nutrients.

Metallurgy – science of extracting and working metals.

Motte-and-Bailey Castle – the earliest form of Norman castle. These were established along key communication routes after the conquest. An inner courtyard was protected by simple earth and wooden defences.

Neolithic – (c. 4,000 – 2,500 BC) an archaeological term used to describe the 'new stone' age. This applies to the culture achieved during the middle Post Glacial when mankind had begun to polish and grind stone artefacts (a technological advance from the bashing and flaking of the Palaeolithic and Mesolithic). The Neolithic also saw the introduction of agriculture.

4 GLOSSARY

Oolite – a sedimentary rock made up essentially of oolites; spherical rock particles formed by the gradual accretion of material around an inorganic (e.g. sand) or organic (e.g. shell) nucleus. Oolites are small and their appearance has been likened to fish roe (from where their name is derived).

Open Field System - well established means of land management during the medieval period that was widespread across much of lowland England. The unit of cultivation was the strip (land or selion), which varied in length and width depending on local conditions. The strips were grouped together into furlongs and a number of furlongs formed the field. The up and down ploughing of the strips threw soil into the centre of the strip and over time created the distinctive ridge and furrow landform which may be used to identify remnants of open fields in the landscape today. Ridge and furrow type landforms are also evident in water meadow landscapes and areas where steam ploughing was employed. Good examples survive where the open arable fields became permanent pasture following the black death in the 14th Century and when arable land was enclosed in the late 18th and 19th Centuries. Elsewhere, the act of enclosing the land, subsequent consolidation of the strips and continued ploughing for arable production, obliterated the patterns of ridge and furrow.

Outcrop – the area where a particular rock appears at the surface.

Palaeolithic – an archaeological term used to describe the earliest form of human culture. The earliest toolmakers lived during the Pleistocene in Britain after the main glacial periods had passed.

Pedology – the scientific study of soils.

Pleistocene – the first epoch of the Quaternary that loosely corresponds to the Ice Age.

Quaternary - the younger of the two geological periods of the Cainozoic. This was the era that saw the appearance of mankind. It comprises two epochs, the Pleistocene and the Holocene and deposits consist largely of alluvium, tufa, head, head gravel and river terrace deposits.

Riparian – riverbank habitats.

Semi-natural vegetation – any type of vegetation that has been influenced by human activities, either directly or indirectly.

Topography – term used to describe the surface features of the earth's surface.

Tufa – sedimentary deposit formed around a spring of calcareous groundwater. It is generally found in limestone regions where it infills cavities.

Turnpike – a gate across a highway preventing passage until a toll has been paid. Turnpike roads were administered by turnpike trusts that were authorized by a private act of parliament in 1663 to levy tolls for maintenance of the highway. This replaced the parochial maintenance system and substantially improved communications in England.

Triassic – the first geological period of the Mesozoic era, extending from about 240 million years ago to about 195 million years ago. It succeeded the Permian and preceded the Jurassic. In Britain, it consists mainly of shales, red desert sandstones, marls and pebble beds. This period witnessed the evolution of the reptiles and the earliest known dinosaurs.

Vernacular – built in the local style, from local materials.

Veteran Tree – a tree that is of interest biologically, culturally or aesthetically because of its age, size or condition.

4.3 ABBREVIATIONS

AONB – Area of Outstanding Natural Beauty

ASNW – Ancient Semi Natural Woodland

ASL – Above Sea Level

AW – Ancient Woodland

BP – Before Present

BAP – Biodiversity Action Plan

CWS – County Wildlife Site

cSAC – Candidate Special Area of Conservation

GIS – Geographical Information System.

pSAC – Provisional Special Area of Conservation

SAC – Special Area of Conservation

SPA – Special Protection Area

SSSI – Site of Special Scientific Interest

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6 FIGURES

PLEASE REFER TO THE DOCUMENT '**CLCA - FIGURES 1-7**'.

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