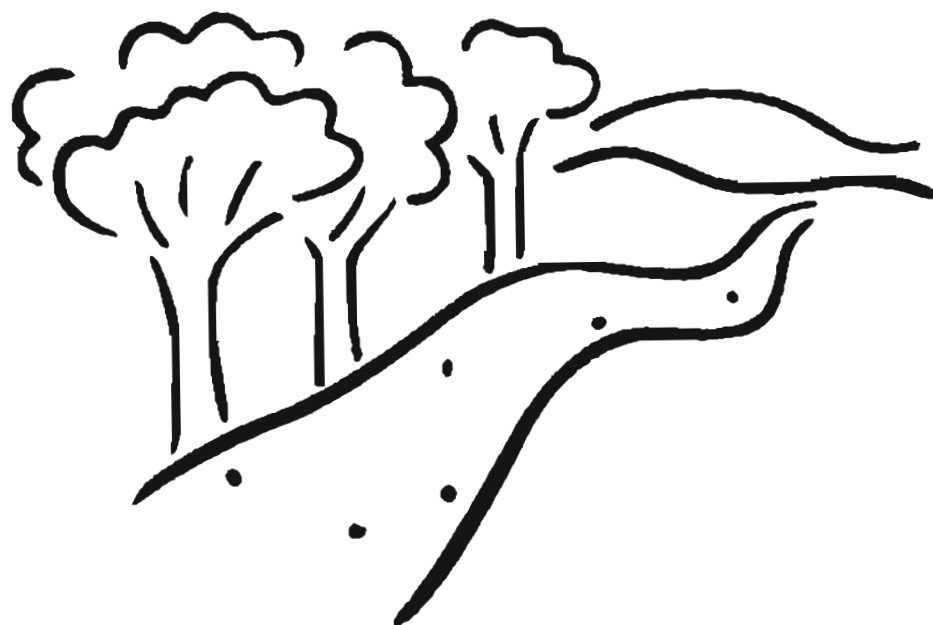


WEST LINDSEY LANDSCAPE CHARACTER ASSESSMENT



West Lindsey District Council

West Lindsey Landscape Character Assessment

August 1999

Environmental Resources Management

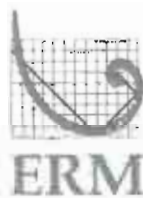
Eaton House, Wallbrook Court,
North Hinksey Lane
Oxford OX2 0QS

Telephone 01865 384800

Facsimile 01865 384848

Email post@ermuk.com

<http://www.ermuk.com>



West Lindsey District Council

West Lindsey Landscape Character Assessment

August 1999

Reference 5996

Prepared by: Kate Collins

For and on behalf of
Environmental Resources Management
Approved by: <u>JULIE MARTIN</u>
Signed: <u>Julie Martin</u>
Position: <u>Technical Director</u>
Date: <u>18 August 1999</u>

This report has been prepared by Environmental Resources Management the trading name of Environmental Resources Management Limited, with all reasonable skill, care and diligence within the terms of the Contract with the client, incorporating our General Terms and Conditions of Business and taking account of the resources devoted to it by agreement with the client.

We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above.

This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.

FOREWORD

The West Lindsey Landscape Assessment

In February 1999, West Lindsey District Council appointed Environmental Resources Management (ERM) to carry out a landscape assessment of West Lindsey District. The District Council was seeking to advance its knowledge and understanding of issues relating to local landscape character and quality and the study was intended to support the forthcoming review of the West Lindsey Local Plan.

The brief for the study required a detailed assessment of the special character, distinctiveness and qualities of the landscape of West Lindsey District in order to provide a framework for planning and policy development within the area. The landscape assessment was to incorporate landscape guidelines to assist the decision-making of landowners, managers and farmers and to identify priorities for action. In addition to the landscape assessment, ERM was asked to prepare a *Countryside Design Summary* (CDS) which shows how necessary development can be accommodated in ways which protect local character and distinctiveness.

This report presents the findings of the landscape assessment. The CDS is a separate, related document, which forms the basis for the production of Supplementary Planning Guidance.

1.1.1

Structure of the Report

The landscape patterns that we see today have evolved gradually over thousands of years, through both natural and human forces. Section 1 describes the principal forces that have shaped the landscape of West Lindsey. Important and distinctive geological, cultural and habitat features are highlighted, and their distribution is described.

This sets the scene for Section 2, which reviews variations in landscape character across the region, drawing attention to those characteristics and features that are particularly distinctive. The descriptions of landscape character incorporate guidelines for landscape management and for accommodating new development which are tailored to reflect the specific characteristics of each landscape character area.

Today, landscape change continues to be necessary, but it should not be allowed to erode landscape patterns or local identity. By recognising landscape character, new land uses or development can often be accommodated successfully. Indeed change may provide opportunities to reinforce or enhance the landscape for the benefit of future generations. Section 3 of this report reviews the scale, pace and landscape implications of development and land use change across West Lindsey. It presents broad guidance for accommodating different forms of change within the landscape.

The key to accommodating landscape change successfully is to understand landscape scale and character; appreciate geology, habitats, field and settlement patterns; and respect local materials and building styles.

The final section of this report, *Section 4*, outlines the key issues that face West Lindsey's landscapes today, and suggests a strategic approach to their conservation and enhancement. The first steps are to recognise the value of 'ordinary landscapes', and to understand the evolving patterns of land use and landscape character. The *West Lindsey Landscape Character Assessment* is an invaluable tool, for use by the relevant government departments and agencies, district council officers and members, community groups, individual land owners and land managers, public and private sector developers and their professional advisers, and all those involved in the development or management of land.

Among the key issues to be addressed are the loss of distinctive landscape settings to settlements, the erosion of traditional rural landscape patterns and features and the impact of large agricultural buildings in the rural landscape. There are also more subtle, insidious threats, such as damage to the settings of historic features, and loss of areas of semi-natural habitat. Priority actions are put forward for tackling each of these issues.

To sum up, the *West Lindsey Landscape Character Assessment* is intended to lay the foundation for common policies and action on landscape issues. It is a tool for creative conservation and landscape enhancement; and it can help to identify opportunities for robust and attractive new development. The landscape is a unique and valuable asset, but one that is very vulnerable to ill-considered change. Action now to recognise landscape character in planning for development and change will enable that change to be positive, creative and effective.

CONTENTS

1	EVOLUTION OF THE LANDSCAPE	1
1.1	THE LIE OF THE LAND	1
1.2	ORIGIN AND FORM OF THE UNDERLYING ROCKS	1
1.3	THE INFLUENCE OF THE ICE AGE	2
1.4	THE GEOLOGICAL FRAMEWORK	2
1.5	HUMAN INFLUENCES	3
1.6	THE LANDSCAPE TODAY	6
2	LANDSCAPE CHARACTER	9
2.1	LAUGHTON WOODS	13
2.2	TRENT VALLEY	17
2.3	THE TILL VALE	21
2.4	THE CLIFF	25
2.5	LIMESTONE DIP SLOPE	29
2.6	LINCOLN FRINGE	33
2.7	FENLAND	37
2.8	LINCOLNSHIRE LIME WOODS	41
2.9	LINCOLNSHIRE CLAY VALE	45
2.10	THE KELSEYS	49
2.11	HEATHLAND BELT	51
2.12	NORTH-WEST WOLDS ESCARPMENT	55
2.13	LINCOLNSHIRE WOLDS	59
2.14	WOLDS' ESTATES	63
3	FORCES FOR CHANGE	67
3.1	PLANNING FRAMEWORK	67
3.2	BUILT DEVELOPMENT	68
3.3	INFRASTRUCTURE	71
3.4	MINERAL EXTRACTION	74
3.5	AGRICULTURE	75
3.6	WATER QUALITY	77
3.7	FORESTRY AND WOODLANDS	78
3.8	TOURISM AND RECREATION	81
4	KEY ISSUES AND RECOMMENDATIONS	85
4.1	A STRATEGIC APPROACH	85
4.2	THE LOSS OF DISTINCTIVE LANDSCAPE SETTINGS TO SETTLEMENTS	89
4.3	THE EROSION OF DISTINCTIVE RURAL LANDSCAPE PATTERNS AND FEATURES	90
4.4	THE IMPACT OF AGRICULTURAL BUILDINGS IN THE RURAL LANDSCAPE	91
4.5	THE FUTURE OF WEST LINDSEY'S REDUNDANT AIR BASES	92
4.6	THE DECLINE OF NATURAL HABITATS	92
4.7	DAMAGE TO THE LANDSCAPE SETTING OF HISTORIC AND ARCHAEOLOGICAL FEATURES	93
4.8	A VALUABLE HERITAGE	94

1.1

THE LIE OF THE LAND

The consistent north-south grain of the West Lindsey landscape is one of its most striking characteristics (*Figure 1*). The broad valleys of the Trent and the Ancholme/Barlings Eau are subdivided by a narrow limestone ridge, known locally as the 'Cliff'. This is the northern part of an upland spine which extends from the Humber to Stamford. The ridge is relatively narrow (5km) and low (77m OD) in West Lindsey in comparison to the Kesteven Uplands to the south, but it is nevertheless a significant local feature, with a west facing scarp and a shallow eastern dip slope which falls gently to the Lincoln Clay Vale.

The Lincoln Clay Vale is drained by the River Ancholme, which flows northwards to the Humber Estuary, and the Barlings Eau, which flows southwards to join the River Witham and the Wash. The vale has predominantly heavy clay soils, but local variations in the solid and drift geology have a marked influence on landscape character, with low hillocks of boulder till forming shallow 'islands' on the flat alluvial land.

The steep, fluted chalk escarpment of the Lincolnshire Wolds dominates the eastern vale. The escarpment is particularly pronounced in West Lindsey and reaches its highest point at Normanby Top (168m). The indented escarpment slope is a backdrop for views across the eastern part of the district and the undulating crest offers commanding panoramic views to the north and west. The dip slope of the Wolds is dissected by the intimate, winding valley systems of Laceby Beck and Waithe Beck; their lush, domestic character contrasting with the open, sweep of the arable 'tops'.

1.2

ORIGIN AND FORM OF THE UNDERLYING ROCKS

The character of West Lindsey's landscape is derived from the underlying skeleton of rock. Operating over millions of years, the twin processes of erosion and deposition have evolved a unique topographic form which has, in turn, influenced the pattern and distribution of soils, landcover and human activity.

In North Lincolnshire the most influential sequence of change began 65 million years ago at the end of the Cretaceous period and the accumulation of a shallow dome of chalk, which covered much of Britain. Movement of the earth's crust tilted the rocks and led to the formation of rivers which flowed eastwards across the sequence of rock strata. Tributary streams developed on the softer clays, leaving the more resistant limestones, ironstones, sandstones and chalk as upstanding ridges, with steep west facing scarps. At this stage, the drainage pattern was dominated by east flowing rivers, which removed substantial amounts of chalk. Gradually, the rock surfaces were eroded until,

only one million years ago, a flat peneplain was formed at almost the same level as the sea.

During the late Pleistocene, earth movements caused the gradual regression of the sea. This occurred in marked stages and the resulting marine platforms are still evident in parts of the Wolds and at Burton Cliff on the margins of the Trent Valley. Each stage of regression would cause renewed erosion by streams, accentuating the form of the emerging scarp and vale topography.

1.3

THE INFLUENCE OF THE ICE AGE

The present day form of the land, its cover of soils and the pattern of drainage is the result of the formation and movement of the ice sheets which developed around 200,000-150,000 years ago. Ice moved across northern Lincolnshire in a southerly direction and at the peak of glaciation, covered all but the highest summits of the Wolds. The erosive action of the ice sheets was particularly effective in the softer clays of the Trent valley and Lincoln Clay Vale, which were over-deepened by the ice. The ice also moulded and smoothed the form of the Lincoln Cliff and northern Wolds escarpment.

The ice age included several episodes of glaciation, interspersed with warmer inter-glacial periods in which meltwater streams incised new drainage patterns and the seawater rose.

The final period of glaciation, which lasted over 100,000 years, led to the plugging of the Humber and the wash with a combination of ice and boulder till. This in turn caused the impounding of a massive glacial lake in the Fens, central Lincolnshire and the lower Trent valley. As the lake dried out, glacial sands were blown eastwards from central England across north Lincolnshire and accumulated against the Lincoln Cliff (at Scotton Common) and the Wolds escarpment between Caistor and Market Rasen. These windblown 'coversands' probably originated from sandstones to the west of the Trent and were easily blown across the unvegetated frozen landscape. The coversands added to the complex pattern of meltwater deposition in the Lincoln Clay Vale, where boulder till, clay, gravels and alluvium formed an uneven covering.

As the ice began to melt in the Wolds, a complex pattern of lakes and spillways developed on the fringes of the ice sheets. Meltwater was often forced to escape across valley divides into adjacent catchments when it became blocked and ponded by ice. The deeply fretted coombes in the chalk escarpment near Caistor were formed during this period by the rush of meltwater from ice sheets in the eastern Wolds.

1.4

THE GEOLOGICAL FRAMEWORK

Figure 2 shows a simplified solid and drift geology of West Lindsey.

Figure 1 Physical Features

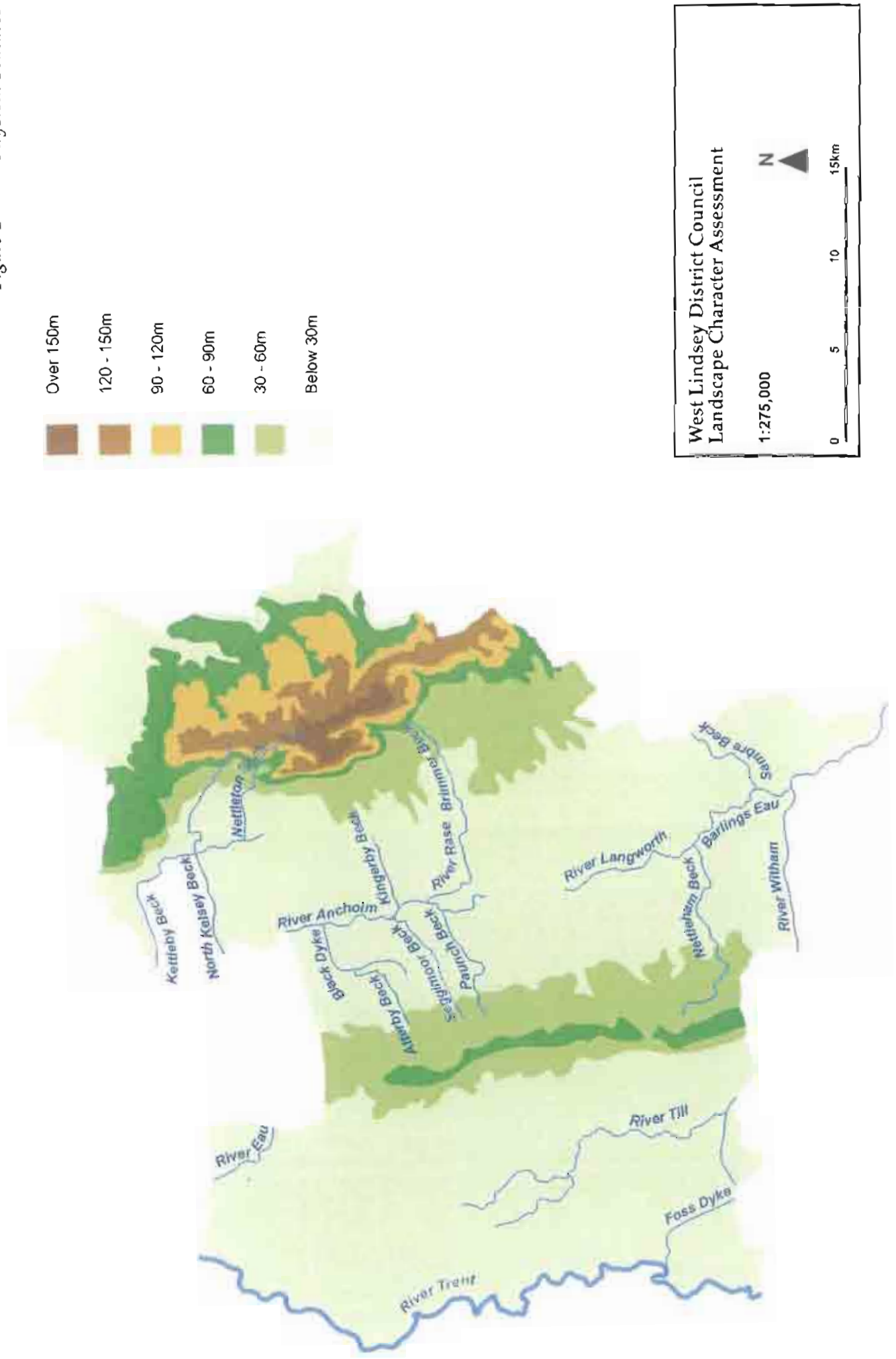
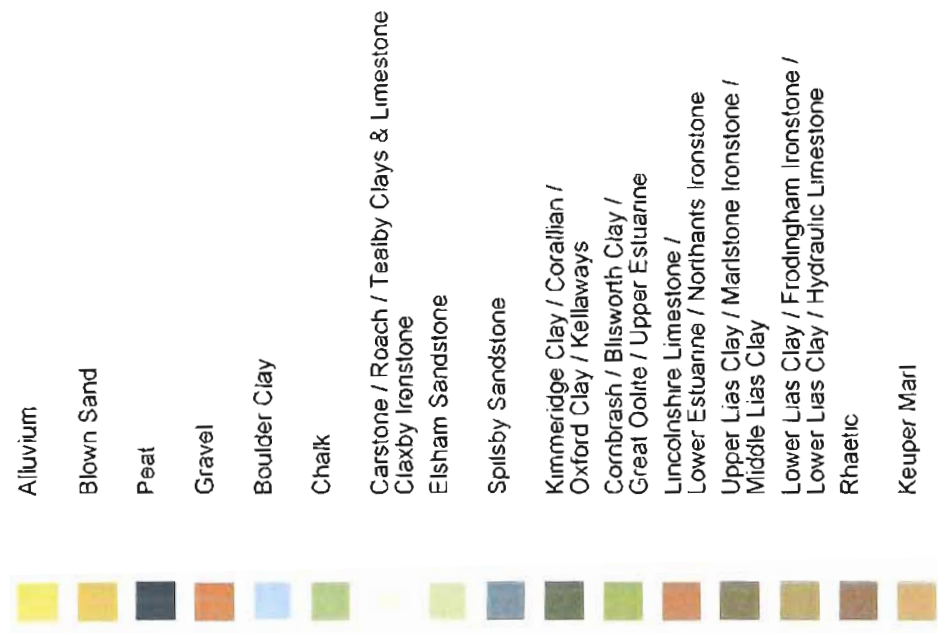


Figure 2 Simplified Geology



West Lindsey District Council
Landscape Character Assessment

1:275,000



0 5 10 15km

Working across the district from west to east, the River Trent flows within a broad alluvial valley. A series of shallow hills, formed by the more resistant Hydraulic Limestone in the Lower Lias, are flanked by deposits of coversands. These are particularly extensive at Laughton and Scotton, where the acidic, sandy heaths are partially forested. The higher terrain on the fringes of Gainsborough is the result of outcrops of the more resistant gypsum within the rock strata. The broad, gently rolling vale between the Trent and the Lincoln Cliff is drained by the River Eau to the north and the River Till to the south. The area is covered by heavy Boulder Clay, with pockets of coversands, although areas of drift-free Lias on the eastern margins of the vale are the favoured site of a line of small spring line villages at the foot of the Lincoln Cliff scarp at the junction of the Lias and associated permeable rocks.

Capped by Lincolnshire Limestone, the Lincoln Cliff extends north-south across the centre of the district. The gentle, rolling dip slopes comprise a sequence of Jurassic clays which become overlain by the drift deposits of alluvium, boulder clays, coversands and gravels in the Lincoln Clay Vale. In the northern part of the vale, the River Ancholme has particularly extensive alluvial deposits, a result of overdeepening and subsequent deposition following changes in sea level at the end of the Ice Age. The stony Boulder Clay has capped hummocks of clay in parts of the north east vale to form low hills on which the villages of Kingerby and the Kelseys are sited. Again afforestation gives some areas of coversands prominence in the wider landscape.

To the east, the chalk landscapes of the Lincolnshire Wolds are dominant. Although chalk caps the hills, the underlying strata of ironstones and sandstones are revealed at the escarpment and on the floor of the deeper valleys. The exposure of many thin layers of bedrock makes the scarp face relatively unstable and there are numerous minor landslips. Boulder Clay also forms superficial deposits in some valleys.

1.5

HUMAN INFLUENCES

The ice finally melted away around 12,000 years ago leaving a tundra-like landscape. As temperatures increased, first pine, then elm, oak and the small-leaved lime became the dominant species. The heavy clay lands supported dense forest, while upland areas were open heath, with a few trees.

Mesolithic and subsequently Neolithic settlers are thought to have preferred the drier, relatively open sites of the Lincoln Cliff, the coversands and the southern Wolds. The process of woodland clearance was begun by the Neolithic farmers and continued by Bronze Age settlers, who probably occupied all but the heavy clay lands. Cropmark evidence of ditched and linear boundaries shows a concentration of sites close to the north Lincoln Cliff (at Blyborough, Willoughton, Hemswell and Grayingham). These are not defensive sites and the boundaries are thought to have been constructed to maintain some spatial and social organisation within kinship groups. There

is also evidence of prehistoric activity in the coversands parishes of Scotton, Holton le Moor, Claxby and Caistor.

There is evidence of Roman occupation in most West Lindsey parishes, from the elaborate villa sites such as Kirmond le Mire on the Wolds and Sturton by Stow in the clay vale, to the many smaller farmstead sites on coversand areas such as Blyton, along the Trent as at Marton, or within the clay vales at Lea and Linwood. Lincoln was a fortified city with a population of about 5,000, linked by Ermine Street and the Fosse Way to other major settlements across Britain and Caistor was a significant walled town. Ermine Street follows the crest of the Lincoln Cliff on a direct line to the Humber crossing. The area was relatively well-connected in Roman times; Tillbridge Lane links Lincoln with the Trent crossing at Littleborough and the Fosse Way extended beyond Lincoln to the Wolds and a ferry across the Wash.

The main evidence for the Anglo Saxon settlement of West Lindsey comes from their pagan cemeteries, which were concentrated on the drier lands of the Lincoln Cliff, the coversands and the Wolds escarpment. The sites contain urns and often examples of metalwork. The settlers were farmers, who sought cultivable lands and a water supply. Again the Lincoln Cliff, with its loamy soils and springs was a favoured area. Patterns of woodland clearance during this period had a lasting influence and is often reflected in the present day parish boundaries. Along the Lincoln Cliff, where belts of different soils run parallel to the ridge, the clearings formed oblong blocks at right angles to the cliff, whereas on the more homogeneous clays of the Vale, clearings were a more irregular, circular shape.

By the 12th century, most parishes contained a number of agricultural townships, which were laid out to provide access to a range of resources. However there was a complex pattern of land administration; many settlements show no evidence of townships and some townships retained an interest in larger areas of common land, such as Scotton Common, Caistor Moor and a meadow known as Lissingleys. Most settlements lay within well defined parcels of land which were usually farmed by the inhabitants as a single unit. Once created, the townships appear to have resisted further change and the boundaries are traceable in the landscape today. Many townships were grouped into ecclesiastical parishes and formed parts of landed estates. Within the townships, settlements were concentrated on river edge, scarp foot, spring line and clay edge locations, although some seem more arbitrary; Otby and Risby are on unstable parts of the Wolds scarp and Tealby Thorpe has at least part of its main street located in a stream. There is also evidence of farmsteads and tiny hamlets, as well as nucleated villages.

Villages such as Riseholme and Buslingthorpe had a planned, gridlike layout, possibly a result of consolidation and the influence of manorial power in Medieval times. The church and the manor were the most important buildings, often with a close physical relationship. At Buslingthorpe and Wickenby, the church lay within a defined manorial enclosure which also contained fishponds, water-mills and various other features. Many of the manors in the clay vale had moated sites, as at Linwood and Kingerby. The

heavy lands of the river valleys were also used for deer parks, for instance, the Trent valley had parks at Gainsborough, Kettlethorpe and Stow.

The late medieval period was generally one of settlement shrinkage, although this was not universal, for instance Spridlington and Harpswell appear to have grown at this time. Everson ⁽¹⁾ suggests that the 13th century decline may have been the large-scale acquisition of land by monastic houses in West Lindsey and a subsequent development of sheep farming. The Black Death was also extremely influential and villages such as Swallow, Croxby and Owersby were apparently almost completely depopulated.

The 16th and 17th centuries were also a time of population decline in rural areas. There was a general migration to towns, conversion from arable to pasture and a rationalisation of agricultural holdings. The process was overseen by a number of acquisitive land-owning families, such as the Tyrwhitts at Kettleby and the Monsons at South Carlton. Some villages went through a large-scale reorganisation or even redevelopment at the instigation of their lords.

The basis of the local economy was pastoral farming and there was piecemeal enclosure of common land, particularly on the heavy land of the river valleys. Nevertheless, most areas retained substantial areas of common land. During the late 18th century, the enclosure movement transformed the open fields and commons into compact, neat farms with small, hedged fields. In some areas there was an increase in arable farming, although the region was still noted for its stock. A number of new roads across the Till Vale and the Lincolnshire Clay Vale, which were built after the enclosures, have acute right-angled bends as they were forced to twist around the new boundaries. These 'enclosure' roads often retain their wide verges, which were let by the parish for grazing and which allowed carts to pass, avoiding the inevitable muddy ruts during wet weather. The impact of the new canals and railways came later. Initially the Fossdyke linked Lincoln to the Midlands and the north via the Trent, but parts of the Ancholme and Witham were also made navigable. The Trent carried a great deal of trade and Gainsborough became a major port. The railways were also influential and their success led to the decline of the minor canals. They opened up the rural areas, easing the passage of goods and passengers and making distances seem shorter. The railways fostered urban growth, while also supplying fertilisers, agricultural machinery and trade.

The landscape pattern established in the nineteenth century has persisted long into the twentieth, although the two World Wars had a significant impact on the landscapes of West Lindsey. The first air bases in the district were established when 33 Sqdn. set up headquarters at Gainsborough and developed airfields at Brattleby, Cockthorne, Blyborough, Harpswell (later to become Hemswell) and Scampton. The latter became the Royal Flying Corps training station. The aerodromes were disbanded after the First World War

(1) *Change and Continuity: Rural Settlement in North-West Lincolnshire*, Royal Commission on the Historical Monuments of England, PJ Everson, CCTaylor and CJ Dunn, 1991 London, HMSO

and the areas returned to agriculture. However, the lead up to 1939 saw the re-opening of Scampton and Hemswell, as well as a new station on the Wolds at Binbrook. By the end of the war there were 12 airfields in West Lindsey. They remain a major influence on the landscapes on the limestone dip slopes and the adjacent clay vales.

1.6 THE LANDSCAPE TODAY

1.6.1 *Archaeology & Heritage*

The recent National Mapping Programme and survey work by the Royal Commission has provided a wealth of valuable data. Analysis of the recent aerial survey data has raised new research questions and opportunities for comparative study. Over the years, intensive agricultural production has erased many obvious traces of settlement, making the remaining sites all the more important. Current pressures for landscape change which may continue to threaten important (and as yet undiscovered) archaeological sites are covered in *Section 3*.

The Royal Commission's work on medieval settlements in West Lindsey has shed new light on many aspects of settlement and land use ^{Op Cit}. In particular it demonstrates the importance of change in the landscape and the complexity of many of the issues. The introduction to the Commission's report lists the sites considered most worthy of preservation in 1991. They include settlement remains, moated sites, abbey sites, fishponds, deserted village sites and deer parks. Lincolnshire's light arable land and relatively low rainfall make it an ideal location for cropmarks and those in West Lindsey provide examples of settlements from the Bronze Age to the Roman and medieval periods. Often the cropmarks represent a palimpsest of traces from different phases of settlement activity. With each shift in the regional economy, traces of previous activity have been left behind. Often they are erased by subsequent settlement, but patterns of past land use have frequently formed a framework for future development. Today it is possible to 'read' the layers of history in the landscape. It contains a plethora of ancient landscape patterns, archaeological sites and historic settlements which provide a fascinating glimpse into the past, as well as a framework to guide future change.

There is little value in ranking the district's sites in any way in a study of this kind. Together they contribute to the distinctiveness of the local landscape and our understanding of landscape character.

1.6.2 *Ecology*

While much of West Lindsey is dominated by arable farmland, with a relatively low level of ecological interest, there remain some valuable heathland, grassland, wetland and woodland habitats.

The coversands of Scotton Common in the north west corner of the district support brecklands of exceptional quality. This is the best area of heathland

in Lincolnshire from an ecological point of view. A nature reserve is being actively managed by the Lincolnshire Trust for Nature Conservation and an adjacent area within Laughton Forest is being restored by Forest Enterprise for the Forestry Commission. The area already has 40 pairs of breeding nightjars. As the forest is cleared, the draw down of water is reduced and the area of valuable wet heath is expanding. The coversands in the Market Rasen area remain extensively forested and there is less opportunity for heathland restoration. However the racecourse and golf course have important habitats and there is a heathland nature reserve at Linwood Warren.

To the south, the eastern fringes of Gainsborough include a number of semi-natural (and a very few ancient) birch oak woodlands on the fringes of the area with acidic heathland soils.

Lea Marsh, on the immediate margins of the Trent, is an extensive area of wet meadow which is regularly flooded. The majority of the area is heavily grazed, but it is a crucially important habitat for breeding waders such as curlew and redshank. A small meadow in the centre of the Marsh is an SSSI with a valuable wet meadow flora. The riverside landscapes elsewhere in the district are less valuable as the river channels have been extensively canalised and land drainage controlled. However, valuable ancient clay meadows have survived at Kingerby Beck and Pickerings Meadow.

The most important grassland habitats are found on the chalk escarpment. The Wolds are unusual in that there are acidic and calcareous grasslands in close juxtaposition. The area has the best concentration of acid grassland in Lincolnshire, much of which has been managed through the Countryside Stewardship scheme. There are also some valuable small chalk grassland sites, for instance at the Binbrook airfield and Swallow Wold.

Limestone grassland sites are rare, but there is a small pocket of managed grassland at Broomhill caravan park and some of the wide verges of enclosure roads on the limestone dip slope harbour valuable limestone grassland flora.

The southeast corner of the district is renowned for its ancient lime woods. The area is now a national nature reserve and is thought to represent the best lime dominated woods in England. The woods have a long history of management and the species composition (lime, ash, wayfaring tree) has hardly changed over the past 300 years.

Ancient habitats, particularly those managed in traditional, sustainable ways, remain exceptionally rich in wildlife diversity. But many remnant pieces of land which are simply marginal to current land use requirements are also ecologically valuable. They include the wide roadside verges of the Wolds enclosure roads, regenerating scrub on disused industrial sites, patches of marsh in fields with gleyed soils and even field drainage ditches. All are becoming rarer and more valuable as they are progressively fragmented by modern agriculture, infrastructure and built development, yet all contribute to the rich diversity and unique character of West Lindsey's landscape heritage.

REFERENCES

- Bennett S and Bennett N eds. (1993) *An Historical Atlas of Lincolnshire*. Hull.
- Bewley, Robert H (1998). *Lincolnshire's Archaeology from the Air*. Occasional Papers in Lincolnshire History and Archaeology No 11. The Society for Lincolnshire History and Archaeology.
- Boutwood, Yvonne (1998). *Prehistoric Linear Boundaries in Lincolnshire and its Fringes*. In Robert H Bewley ed. *op cit* pp 29-46.
- Countryside Commission (1993) *The Lincolnshire Wolds Landscape* CCP 414. Countryside Commission.
- Crooks, SE ed. (1997) *Your Guide to Nature Reserves in Lincolnshire*. Lincolnshire Trust for Nature Conservation, Horncastle.
- English Nature (1997) *North Lincolnshire Coversands and Clay Vales Natural Area Profile* (draft).
- English Nature (1997) *Trent Valley and Rises Natural Area Profile*.
- English Nature (1997) *Lincolnshire Wolds Natural Area Profile*
- Everson PJ, Taylor CC and Dunn CJ (1991). *Change and Continuity: Rural Settlement in North-West Lincolnshire*, Royal Commission on the Historical Monuments of England. London, HMSO
- Swinnerton H H and Kent P E (1976). *The Geology of Lincolnshire*, Lincolnshire Naturalist's Union, Lincoln.
- Robinson D N (1993) *Natural Regions* In Bennett and Bennett 1993 *op cit* pp 8-9.
- Robinson, D N (1975). *Geology and Scenery* in E J Gibbons, *The Flora of Lincolnshire*, Lincolnshire Naturalist's Union, *op cit*.
- Rogers, A (1985). *A History of Lincolnshire*, Phillimore, Chichester.
- Vince Alan ed (1993) *Pre-Viking Lindsey*, Lincoln Archaeological Studies No 1. City of Lincoln Archaeology Unit. Lincoln.
- West Lindsey District Council, (1995) *Aviation Heritage*
- Winton, Helen (1998). *The Cropmark Evidence for Prehistoric and Roman Settlement in West Lincolnshire*. In Robert H Bewley ed. *op cit* pp 47-68.

The United Kingdom is renowned for the diversity of its landscapes and West Lindsey is no exception. A 30 minute drive across the district from Gainsborough reveals a sequence of distinct contrasts in landscape character, from the woodlands and hedgerows of the Trent valley to the expansive, rolling arable landscapes of the Till Vale and the abrupt escarpment of the 'Cliff'. Further east there is a gentle transition from the smooth, rolling limestone dip slope to the flatter landscape of the Clay Vale, where a subtle pattern of small woodlands and hedgerow trees filter the long views. A band of heathy coversands borders the dramatic Wolds' escarpment, where there are striking contrasts in landscape character between the hummocky grasslands of the scarp slopes and the smooth, rolling farmland on the dip slope of the chalk.

This section explores variations in West Lindsey's landscape character in more detail. The predominant influence is the underlying geological structure, which has determined the development of landforms and soils. Centuries of settlements and land management have also played a part, so that man-made features, such as villages, fields, tracks and dykes add an extra dimension to the landscape pattern.

This is a relatively expansive landscape characterised by long views and dramatic skies. Features such as Lincoln Cathedral, the Humber Bridge, the Stenigot and Benniworth masts, Grimsby Dock Tower and the Trent Valley power stations are focal points in long distance views throughout the district. On a local scale, parish churches are often memorable landmarks. Buildings, trees and ridges, which appear in silhouette against the sky always have a striking impact and many villages have a specific, memorable outline.

In simple terms, West Lindsey can be divided into four *Broad Landscape Character Areas*, which generally reflect the character areas of the Countryside Agency's *Countryside Character Map* and English Nature's *Natural Areas*. The broad divisions between the *Trent Valley*, the *Lincolnshire Cliff*, the *Lincolnshire Clay Vale* and *The Wolds* are shown on *Figure 3*. These *Broad Landscape Character Areas* reflect the principal contrasts in scale, geology, relief, landcover and settlement pattern but they represent a highly simplified view.

The landscape assessment provides a more detailed review. It identifies the 14 different *Landscape Character Areas* which are shown on *Figure 4*. A glance back at the simplified geology map in the previous section (*Figure 2*) will highlight the strong relationship between landscape character and the underlying structure of solid and drift geology. Together, the landscape character areas provide a new descriptive map of the district which draws attention to the contrasts in landscape character which we so often take for granted.

The following Landscape Character Areas (LCAs) are identified:

- | | |
|------------------------|---------------------------------|
| 1. Laughton Woods | 8. Lincolnshire Lime Woods |
| 2. Trent Valley | 9. Lincolnshire Clay Vale |
| 3. The Till Vale | 10. The Kelseys |
| 4. The Cliff | 11. Heathland Belt |
| 5. Limestone Dip Slope | 12. North West Wolds Escarpment |
| 6. Lincoln Fringe | 13. Lincolnshire Wolds |
| 7. Fenland | 14. Wolds' Estates |

A more detailed map, which shows the boundaries of the *Landscape Character Areas* at 1:50,000, accompanies this report. In some places the boundaries between different *Character Areas* follow precise natural 'visual edges' in the landscape, but it is more usual for them to represent a transition from one type of landscape character to the next. Areas close to these boundaries may therefore display some typical characteristics from each of the adjoining landscapes.

The assessment recognises and aims to build on the inherent character of West Lindsey's landscapes. It is important that it provides a means to analyse the relative vulnerability of the different landscape elements, features and patterns which contribute to landscape character. The written notes for each *Landscape Character Area* therefore include:

- *a description of landscape character* - recording the key visual characteristics and qualities of the landscape, including its scale, the degree of enclosure, the diversity and form of patterns made by fields, woods and settlements and the balance and proportion of the different landscape elements within typical views;
- *an analysis of its sensitivity to change* - taking account of the degree of enclosure and definition of landscape pattern, landscape condition and context and special scenic, historical, archaeological or nature conservation interests.

The study assesses the character of *all* the district's landscapes, not just areas which are considered to be of high quality. However, the Lincolnshire Wolds Area of Outstanding Natural Beauty (AONB), in the north east part of the district, is a nationally important landscape, recognised for its outstanding scenery, as well as for its cultural, historic and nature conservation value. The AONB landscape merits careful protection and conservation and is the subject of a separate landscape assessment. ⁽¹⁾ The boundaries of the landscape character areas in the district landscape assessment broadly accord with those identified in the Lincolnshire Wolds assessment.

The landscape descriptions are the starting point for policies and guidelines for the future conservation, management, restoration and enhancement of the landscape. They provide a point of reference and context for designing new landscapes to accommodate change, ensuring that future change has a

(1) Countryside Commission (1993), *The Lincolnshire Wolds Landscape* CCP 414.

Figure 3 Broad Landscape Character Areas

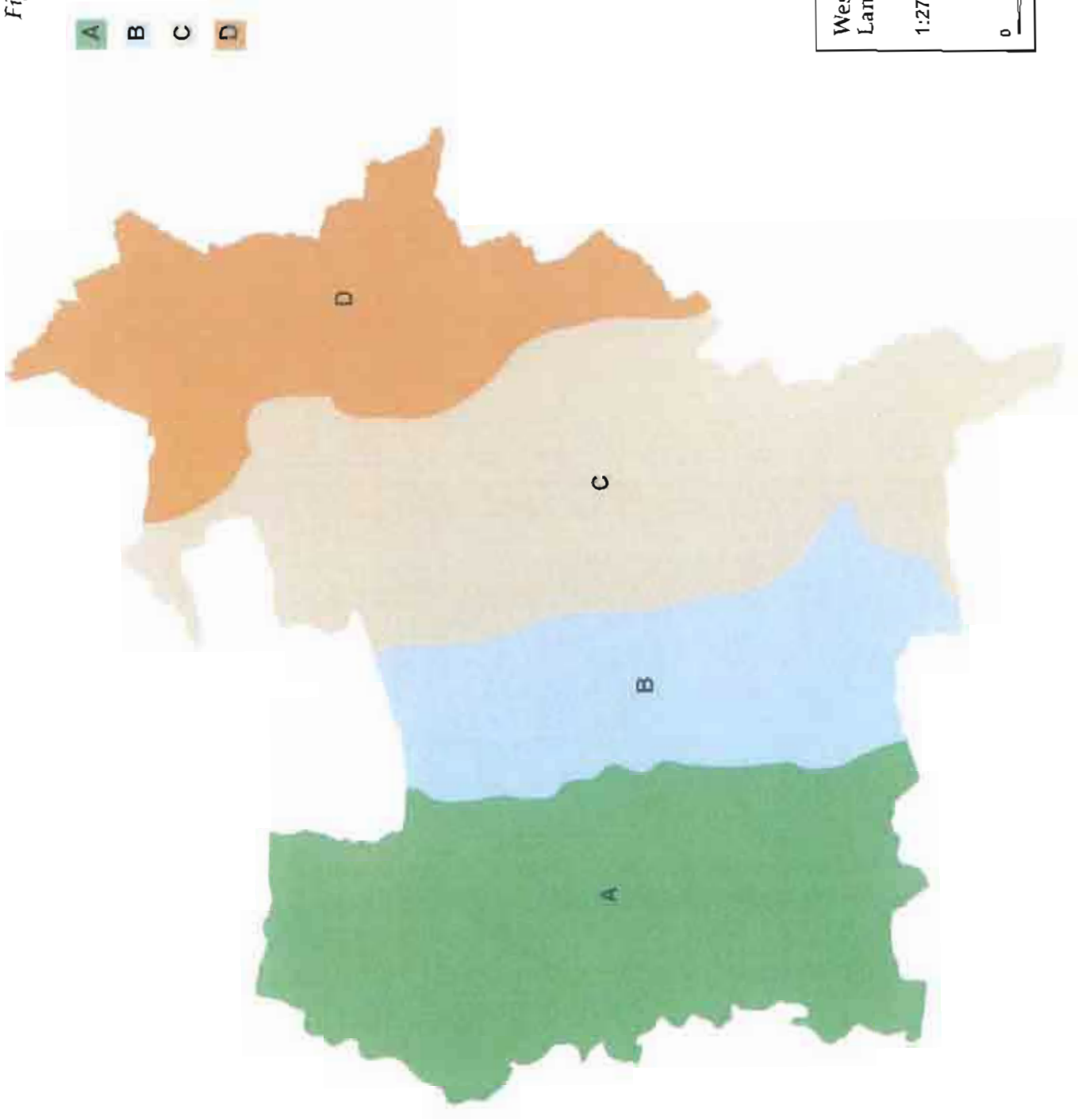
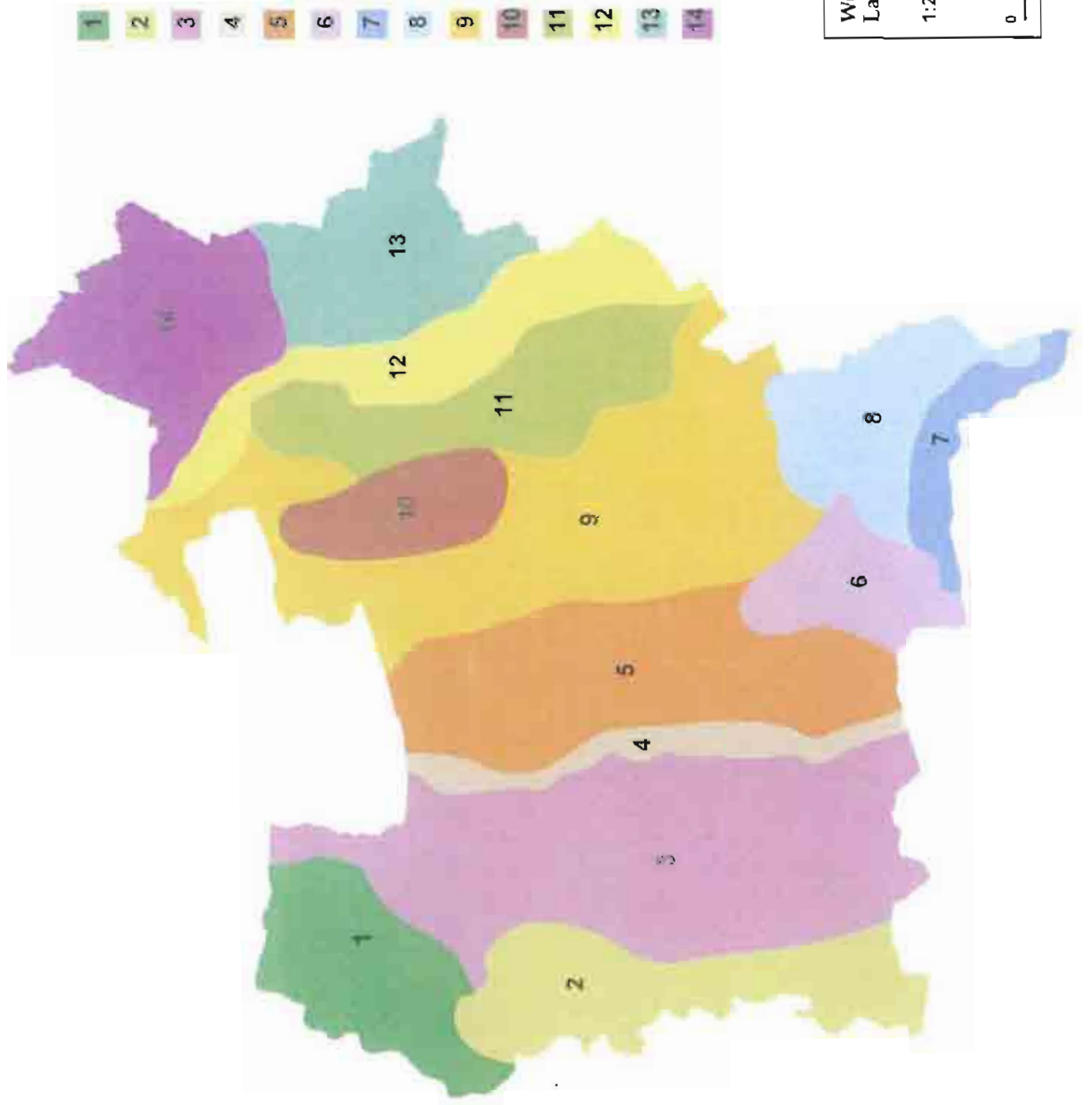


Figure 4 Landscape Character Areas



**LANDSCAPE CHARACTER
AREAS**



1. *Laughton Woods*



3. *The Till Vale*



5. *Limestone Dip Slope*



7. *Fenland*

**WEST LINDSEY DISTRICT
COUNCIL**



2. *Trent Valley*



4. *The Cliff*



6. *Lincoln Fringe*



8. *Lincolnshire Lime Woods*



9. *Lincolnshire Clay Vale*



10. *The Kelseys*



11. *Heathland Belt*



12. *North West Wolds Escarpment*



13. *Lincolnshire Wolds*

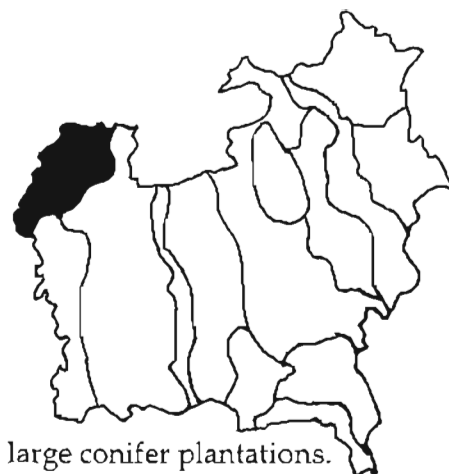


14. *Wolds' Estates*

positive influence and that it reinforces local landscape character, quality and diversity. Specific landscape guidelines are suggested for each *landscape Character Area*. They are of two types:

- *Principles for landscape management* - priorities for action to conserve and manage the landscape in a way which will reinforce its distinctive character. For instance by planting trees, laying and replanting hedgerows, repairing stone walls etc.
- *Principles for accommodating new development* - ways to integrate development into different types of landscape; where it should be restricted and how it can be accommodated as a positive influence. For instance through the careful siting and massing of buildings and the use of materials.

Advice on recognising and reinforcing the relationship between built form and landscape character is also available in the district's *Countryside Design Summary*.



Key Characteristics

- Flat, open agricultural landscape dominated by large conifer plantations.
- Large, smooth textured fields, with few hedgerow or boundary fences, subdivided by a grid of drainage ditches.
- Small blocks of deciduous woodland shelter belts and occasional individual oaks.
- Settlements are 'islands' of buildings and trees in the flat landscape; churches are landmarks.
- String of small settlements along the River Trent with few trees and no churches.
- Panoramic views and big skies.

Landscape Description

This area is dominated by the dark conifer plantation of Laughton Woods. It is located on the broad flat floodplain of the River Trent north of Gainsborough. The River Trent, with its high flood defence bund, forms the western boundary, and the Brigg to Gainsborough railway forms part of the visual boundary to the south east. The land is very flat except for a shallow ridge running north south from Hardwick Hill, formed by the more resistant Hydraulic Limestone, in this otherwise broad alluvial valley. This higher land is flanked by deposits of coversands resulting in the development of acid, sandy heaths that have now been extensively forested. In places the coversands form 'dunes', such as Tuetoes Hills, although the shifting fine, sandy soils have been partially stabilised by afforestation.

This is a predominantly agricultural landscape with smooth textured arable fields. There are wide panoramic views across this flat landscape and a strong perception of big skies. The fields are very large and open with few hedgerows or boundary fences; they are subdivided by a grid of drainage ditches and sometimes by bracken-covered hedgebanks. Field sizes are slightly smaller near to settlements. The landscape is structured by large blocks of conifers, which form definitive visual edges and a dark backdrop to views. Within plantations such as Laughton Woods, the trees are planted quite densely up to the road edge with few clearings. This gives a strong sense of enclosure and allows little variation to the view or visual penetration

into the woods from the road. In addition to the large plantations there are a few smaller blocks of mixed deciduous and coniferous woodlands which form islands of vegetation in the otherwise open fields. Isolated individual oaks and small shelter belts are also important local landscape features. There are pockets of birch-fringed heathland within and on the margins of the plantations, including the nature reserve of Scotton Common.

The main route through this area is the A159 which runs north south, linking Scunthorpe and Gainsborough. The two main settlements, Blyton and Scotter are located on slightly higher ground along this route. There are a number of smaller, nucleated settlements such as Loughton and Scotton, linked by minor roads on the lower lying land. These settlements appear as 'islands' of trees and buildings in an otherwise flat open landscape. There are long, expansive views to the villages and the towers of their limestone churches are important landmarks.

A minor north-south route runs along the western boundary of this area, linking a string of small linear settlements along the River Trent. These settlements are different in character to the nucleated villages further east. They are very small hamlets which consist of clustered farms, with some newer housing, and no churches. They have developed at ferry crossing points on the River Trent. However, the settlements are now somewhat divorced from their river setting, as the flood defence bund forms a strong visual barrier along the edge of the Trent, and so there are no views in this direction, but extensive views across the flat landscape to the east. Although there are some trees and hedgerows associated with these hamlets, the built form is the dominant feature in the landscape.

Landscape Sensitivity

This wide open landscape, backed by stands of dense woodland, is very sensitive to change. Panoramic views to woodland and important heathland habitat merit conservation.

The area is considered to be one of the most valuable heathland habitats in Lincolnshire and the Lincolnshire Trust are working with the Forestry Commission to undertake heathland restoration within woodland clearings. The woodlands currently have about 10% heathland, although this is only part of the network of open space. The long term aim of the management plans is to improve the structural and biological diversity of the woodland, with a higher proportion of native species. Strategic forest clearance on the fringes of the heathland nature reserve at Scotton Common is assisting the restoration of a rich wet heath habitat with a valuable range of flora and fauna.

The most sensitive parts of the landscape are:

- *heathland habitat* - Scotton Common;
- *areas of inland dunes*;
- *woodland edges* - which structure views and form a setting for villages;

- *views to village churches;*
- *remaining individual hedgerow trees - now rare features.*

Principles for Landscape Management

- Encourage and develop the existing pattern of smaller fields near to settlements; boundaries planted with hedgerows and trees will provide shelter and intimacy. Some isolated individual oak trees are reaching maturity (or have been damaged by agricultural machinery) and should be a priority for replacement.
- Planting deciduous trees (oak, rowan, ash) on the fringes of conifer plantations may help to integrate these harsh dark edges with the colours of the rest of the landscape, while also promoting ecological diversity.
- Within the conifer plantations, there is scope to vary roadside woodland edges by planting deciduous species and creating clearings to allow some views into the forest interior. There may also be opportunities for woodland views at points where roads or footpaths cross the outer margins of the woodlands.
- Planting small shelterbelts within open farmland areas will help retain a varied landscape, with bold variations in scale. It will also improve the nature conservation value of the countryside, particularly if shelterbelts are designed to link existing areas of woodland and outlying hedgerows.
- Planting groups of deciduous trees adjacent to prominent farm buildings will help to integrate these features within the wider landscape.
- Ongoing heathland restoration will improve the visual diversity as well as the nature conservation value of the landscape.
- Afforestation has prevented the shifting of the sandy soils and the 'dunes' are now showing signs of erosion. Where possible, farmers could be encouraged to leave areas of arable land fallow to allow some drifting of the sandy soils.
- Some of the more open settlements along the River Trent would benefit from tree and hedgerow planting; this could contribute a stronger sense of local identity, while framing key riverside views.

Principles for Accommodating New Development

- Any new development on the fringes of settlements should be accompanied by significant tree and hedgerow planting to integrate buildings within the surrounding landscape pattern.

- The irregular, small-scale field pattern on settlement fringes can be conserved by developing only part of large peripheral fields and retaining the remainder as grassland.
- Small groups of new buildings should have a relatively high density, with trees forming key focal elements within the layout.
- Churches are important local landmarks throughout this landscape and the characteristic views to church towers on the approaches to villages should be a key consideration in the siting and design of any new development.
- The villages of Scotter, Laughton, Scotton, and Blyton have a clustered form, with a complex network of back lanes and loop roads which has developed around central greens and common land; the layout of new development should take a similar form, avoiding linear or cul-de-sac layouts.
- Any expansion of the small settlements along the River Trent would be quite visible in this open river corridor landscape; the villages are relatively close together and there is a risk that further ribbon development might lead to coalescence.



Key Characteristics

- Low-lying, gently undulating landform with higher terrain to east and south of Gainsborough.
- Significant blocks of deciduous woodland, good hedgerows and hedgerow trees create a relatively enclosed landscape.
- River Trent and its adjacent washlands are enclosed by steep flood embankments.
- Historic parkland landscapes including a medieval deer park, and landmarks such as the ruins of Torksey Castle.
- Main roads are significant features in the landscape; recent development concentrated along the main roads, bypassing original village centres.
- Views towards the west are dominated by the power stations along the River Trent.

Landscape Description

The *Trent Valley* character area stretches from Gainsborough and its suburbs to the southern District Boundary near Newton on Trent. The River Trent forms a definite western boundary with its flood defence bund, but the eastern boundary is a more subtle transition between this area and the *Till Vale*.

The landform is gently undulating and quite low lying, although the higher terrain to the east and south east of Gainsborough extends as far south as Marton. This relatively elevated land is formed by local outcrops of resistant gypsum within the rock strata. There are significant blocks of predominantly deciduous woodland to the south and east of Gainsborough, some of which are remnant semi-natural ancient woodland, and good hedgerow boundaries throughout the area. These are generally hawthorn, but there are also taller mixed species hedgerows and hedgerow trees, particularly adjacent to roads.

The combination of tree cover and an undulating landform provides a sense of enclosure; long views are generally contained, particularly to the east of the A156 and A1133 spine roads. However, there are some views down onto this area from the high ground around Gainsborough and along the higher ground along the eastern boundary near Marton. Further south, views to the

west are dominated by the power stations along the River Trent and the major transmission lines leading to them.

The River Trent and its sequence of washlands is enclosed by steep flood embankments and is relatively inconspicuous in the wider landscape.

Gainsborough, the major settlement in this area, is located at one of the few crossing points of the River Trent. A number of main roads pass through Gainsborough and are dominant features within this character area. The A156 runs north south and the A631 east west into Gainsborough. Railways also approach Gainsborough from the north and south. South of Gainsborough, the A156 passes through a string of small settlements; Knaith, Marton and Fenton. Towards the south, the A156 branches into the A1133 where it crosses the Fosdyke at Torksey Lock. The A1133 then passes through the settlements of Laughterton and Newton on Trent. The Fosdyke is a man-made canal linking the navigable river Witham with the Trent, giving access to the Midland river system from the Wash. Today it is used primarily for recreational boating and there are some limited visitor facilities at Torksey Lock.

The area has some important historic parkland landscapes at Knaith, Gate Burton and Kettlethorpe, and the remnants of a medieval deer park to the south east of Gainsborough. There are also a number of historic landmarks in addition to those in Gainsborough itself. These are the ruins of Torksey Castle and a hall and pavilion at Gate Burton, all of which are highly visible from the A156.

This landscape accommodates a variety of land uses and features including, settlements, golf courses, transmission lines, roads, a railway and the Fosdyke.

Landscape Sensitivity

Views are generally contained by tall hedgerows, woodlands and tree groups, giving the landscape some capacity to accommodate change. The area has some important historic parkland landscapes and some of the woodlands on the fringes of Gainsborough are valuable ancient woodlands.

The River Trent washlands are also important for nature conservation and the Lea Marshes are renowned as a habitat for breeding waders. The Marshes are flooded regularly and there are pockets of valuable wet meadow habitat, including a small central meadow, which is a designated SSSI.

The most sensitive parts of the landscape are:

- the *higher land to the south and east of Gainsborough*, which extends as far south as Marton;
- the *historic parklands* of Kettlethorpe, Knaith, Gate Burton and Gainsborough, together with their associated boundary earthworks;

- ancient woodlands, such as Thurlby Wood, Houghton Wood and Wharton Wood;
- *River Trent washlands*, such as the Lea Marshes;
- *village entrances* which are frequently marred by linear development along adjacent main roads;
- *low-lying land along the River Trent* (to the west of the A156/ A1133);
- *the Fosseydyke* -a low lying meadow landscape with potential for recreation;
- *Torksey Castle*, a historic landmark with an important landscape setting;

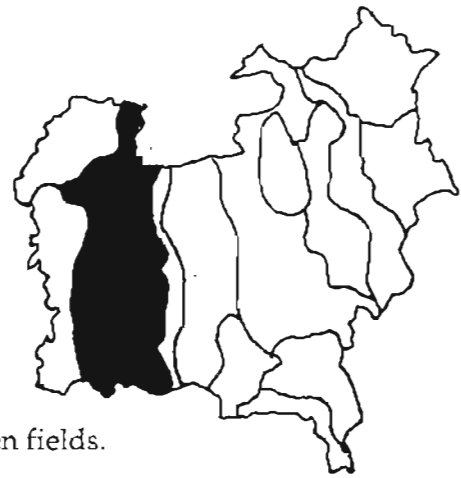
Principles for Landscape Management

- Sustainable management of existing woodlands by thinning, coppicing and/or replanting will ensure that these important local landscape features are conserved and enhanced; they should remain a viable landscape screen and a valuable wildlife habitat.
- Priority should be given to new woodland, shelterbelt or hedgerow planting which is designed to link existing woodlands, particularly those with semi-natural or ancient woodland status. Appropriate local species include field maple, hawthorn, ash and oak.
- Hedgerows and hedgerow trees should be managed to retain the existing landscape pattern, screen settlements and contribute to local identity.
- There is scope to improve the setting of the Fosseydyke as a recreational landscape. For instance, tree planting might be designed to draw attention to the position of the lock and there may also be opportunities for more informal tree groups along the edge of the river corridor.
- Any schemes for the management of local water tables which allow the extension of existing areas of marshland to create relatively large-scale areas of wetland would have significant visual and nature conservation value. For instance, there may be opportunities to re-create riverine woodlands on low riverside banks (left-over belts of land).
- Roads are visually dominant in this area; their influence could be improved by a landscape strategy designed to incorporate tree planting, hedgerow management and signage. This should take account of key views and the entrances to settlements which would often benefit from distinctive planting schemes.
- The landscape setting of historic parklands and built features requires careful consideration, backed by research.

Principles for Accommodating New Development

- New development can be accommodated on the higher ridges to the south and east of Gainsborough, provided it is associated with new tree and hedgerow planting which is designed to integrate with local field patterns.

- Further linear development along the principal roads in the area would be detrimental to local landscape character.
- Entrances to settlements, abrupt road bends and junctions are particularly sensitive sites; they are the focus for local views and can easily be marred by nondescript development. New development at such locations should be designed to provide 'one-off', distinctive buildings, which reflect local building types and materials.
- Many settlements are by-passed by major roads and there is a risk that views to the village centre will be obscured by peripheral development; such key views should be identified and conserved.
- Local building materials are red brick and buildings traditionally have pantile roofs. Village buildings are of varied architectural styles but all are designed to form a distinct frontage onto the road. New buildings should be designed to follow this model, with driveways and parking behind or to the side of buildings and brick walls which integrate the plot with the streetscape.
- New development on the periphery of settlements should always be bounded by new or existing hedgerows and native hedgerow trees so that the buildings are visually 'anchored' within the wider landscape pattern.
- Development on the low-lying land to the west of the A156/A1133 would be prominent and cannot easily be accommodated without detracting from the gentle transition to the open, flat farmland on the banks of the River Trent.
- New development should not impinge on views to the many important designed parkland landscapes in the area.



Key Characteristics

- Agricultural landscape with large, flat open fields.
- Some fields have low hawthorn hedgerows, with few hedgerow trees.
- Small blocks of mixed woodland and shelterbelts.
- Extensive network of rivers, dykes and ditches, which have little visual presence in the landscape.
- String of small nucleated settlements on higher undulating ground along a minor north south route; sequence of views to landmark churches.
- Large farm buildings and individual farmhouses on flatter land to the east.
- Ancient enclosure roads with characteristic wide verges and hedgerow boundaries, particularly in the east.
- Long westward views to the power stations on the River Trent, and eastward views to the scarp face of the Lincoln 'Cliff'.

Landscape Description

The *Till Vale* is located east of Gainsborough and the *Trent Valley*, and to the west of the scarp known as the *Lincoln 'Cliff'*. This is an agricultural landscape with large, flat, open fields and a strong rural character. The hedgerow boundaries to the fields are predominantly hawthorn; they are kept low and have few hedgerow trees. The landform becomes rolling and the landscape more enclosed by hedgerows and trees towards the west; it becomes more open with a flatter landform towards the east. Small geometric blocks of woodland, predominantly conifers, are prominent and provide a sense of scale in this expansive farmland landscape. The River Till and its tributaries flow across this area into the Fossdyke. The extensive network of rivers, dykes and ditches have little visual presence in the landscape as they are contained by high floodbanks and lack significant riparian vegetation.

The area is crossed by three east-west main roads; the A631 to Gainsborough in the north, the A1500 Roman road near Sturton by Stow and the A57 alongside the Fossdyke in the south. There is also an important north-south route, the B1241, which links a number of settlements, including Saxilby, Sturton by Stow and Stow. It continues northwards as a minor road, linking a

further string of small nucleated settlements, such as Upton, Springthorpe and Corringham. The settlements are generally small and scattered along this north-south line, often on slightly higher ground within the gently undulating landscape. Fields tend to be smaller near to the settlements and there are more hedgerows and trees. The villages have a broad landscape setting, but the sequence of views to village churches from the B1241 and other smaller lanes is particularly important. A number of windmills, some without sails, are similar landmarks in the landscape. Lines of trees such as horse chestnuts sometimes mark the driveways to larger farm houses forming distinctive landscape features.

Some of the villages in the far north of the area, such as Pilham and Aisby, are very small, although archaeological evidence suggests they may once have been larger. By contrast, the larger villages of Saxilby and Sturton by Stow have expanded rapidly as a result of their proximity to Lincoln. There is also some warehouse and light industrial development in this southern area, between the A57 and the railway, and a major transmission line crosses the landscape. To the east, on the flatter land, there are some individual farmhouses and other large farm buildings, often with associated tree planting. Here there are some other interesting features, such as nodding donkeys at the oil well near Glentworth, and a number of above-ground reservoirs. The minor roads that lead across this flatter area to the *Lincoln 'Cliff'* exhibit the typical form of ancient enclosure roads; they are generally straight, with wide verges, a ditch and hedgerow.

This is a landscape of long views. To the west, the power stations on the River Trent are visible, and to the east, the scarp face of the Lincoln 'Cliff' is a prominent feature. There are distant views of Lincoln Cathedral set high on the 'Cliff' throughout the southern part of the area.

Landscape Sensitivity

This agricultural landscape is sensitive to changes in European Commission agricultural policy and its influence on farming practice. Some villages retain evidence of medieval settlement (earthworks and cropmarks) and may once have been considerably larger.

There is pressure for built development in villages within commuting distance of Lincoln and for the development of above-ground reservoirs within the open farmland.

The most sensitive parts of the landscape are:

- *rural roads and minor farm tracks* bordered by wide verges and hedgerows;
- *edges of villages* which show evidence of medieval settlement;
- the *sequence of views* to village churches along the B1241;
- *avenues and lines of trees* on the approaches to farms;
- *views to Lincoln Cathedral*;
- *small woodlands* - their edges are vulnerable to the impact of agricultural machinery;

- *minor streams* and their associated riparian vegetation.

Principles for Landscape Management

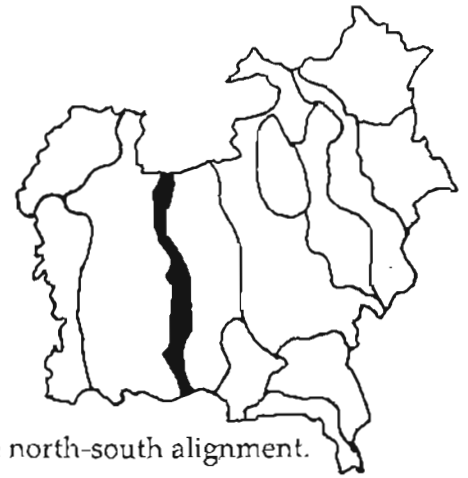
- The retention of buffer zones along rivers and streams will reduce the risk of fertiliser/pesticide runoff from arable land and will enhance their nature conservation value.
- There may be scope for new tree/scrub planting (goat willow, hawthorn, alder and alder buckthorn) along rivers, streams and ditches to increase their visual presence in the landscape.
- The nature conservation value of ditches may be enhanced by cutting shallow ledges into side slopes to provide habitats for aquatic plants.
- The existing small farm woodlands and shelterbelts would benefit from management, including thinning, replanting and the development of robust, well structured edges.
- The creation of buffer zones on the fringes of the woodland blocks will help to protect the existing woodland edges from damage by agricultural machinery; subsequent woodland encroachment onto farmland can be controlled by careful tree surgery and on-going woodland management. The aim should be to conserve (or in some cases create) a diverse age structure and an intact woodland edge.
- Trees and hedgerows make an important contribution to the landscape setting of villages and their management should be a priority in these areas, as well as along rural roads.
- Heavy vehicles can erode the character of rural roads, particularly where hedgerows are removed to improve sight-lines at junctions. Hedgerows should be reinstated to accommodate the new sight-lines.
- New tree planting along approaches to villages and farms could improve the identity of the local landscape. Lines of trees are characteristic in such locations. Tree planting should be confined to hedgerows (*i.e.* not on verges) on all historic enclosure roads.

Principles for Accommodating New Development

- Development on the fringes of villages should be accompanied by new tree and hedgerow planting to integrate with surrounding field patterns. New planting should be of native species and designed to frame (not screen) views from the surrounding, expansive farmland landscape.
- The balance between clustered villages and their adjacent, outlying farmsteads is an important characteristic; new development should be sited and designed to conserve this pattern by encouraging relatively dense

development in villages and conserving key tracts of open farmland between villages and adjacent outlying farms.

- Linear development should be avoided, particularly on the approaches to villages, as it will lead to the erosion of the landscape setting and the distinctive sequence of views from one village church to the next.
- Entrances and approaches to villages are particularly sensitive sites, which require special attention. There may be opportunities for new buildings in such locations, provided they are carefully designed to reflect the small scale and dense massing of traditional village buildings and provided they are associated with groups and lines of native trees.
- The introduction of protected zones between close adjacent settlements, such as Stow and Sturton by Stow, will prevent coalescence and ensure that individual landscape settings are conserved.



Key Characteristics

- Straight, limestone capped scarp slope, with a due north-south alignment.
- Diverse pattern of mixed pasture and arable land with good hedgerow boundaries.
- Springline villages at the foot of the scarp with historic character and many trees.
- Historic halls and associated parkland landscapes.
- Ponds and lakes along the springline.

Landscape Description

The *Lincoln Cliff* is a straight and prominent, limestone capped, scarp slope extending north-south across the centre of the district. It is the narrowest part of an extensive band of resistant limestone which stretches from the Humber to the South Kesteven Uplands. The scarp has a diverse pattern of mixed pasture, arable fields, woodland and hedgerows and is a backdrop for views across the *Till Vale*. Isolated storm-damaged ash trees, which often have grotesque shapes, are characteristic features of the scarp slope.

There are a number of small springline villages along the foot of the scarp, sited at the junction between the limestone and the underlying clay of the *Till Vale*. These villages seem quiet and secluded. They are generally accessed by steep minor lanes which descend the scarp from the ridge-top route of the B1398. There is little direct linkage by road between the villages at the lower level, except for where the B1398 dips down to the bottom of the scarp towards the south, linking villages such as Ingham, Cammeringham and Scampton.

The springline villages have attractive settings at the bottom of the scarp, with many trees and smaller fields with robust hedgerow boundaries. This narrow landscape band contrasts with the wider, open landscape to the west. Some of the limestone churches are important landmarks, particularly when approached from the west, although they may be partially hidden by trees and other village buildings. There are long views from many points along the ridge-top road. For instance, the junction of the A1500 Roman Road and the B1398 offers extensive views across the scarp and over the *Till Vale*. From

here the villages of Scampton and Aisthorpe can be clearly seen nestling in trees at the bottom of the slope.

The villages are small and compact. Limestone is the favoured building material, with brick detailing and pantile roofs. Boundary walls are generally also constructed from the local limestone. The village of Ingham has grown larger than the others, with the introduction of newer brick houses, many of which are bungalows. Despite this, the centre has retained its integrity and identity, with buildings placed around an attractive village green.

There are a number of historic halls and associated parkland landscapes in this area. They include Blyborough Hall and the halls at Brattleby and Burton. There is a large landscaped lake at Fillingham, linked to the parkland landscape of Fillingham Castle at the top of the scarp. Many of the parklands include ponds and minor streams along the springline.

Landscape Sensitivity

A relatively small, but distinctive limestone scarp with a diverse landscape pattern; there is a transition from trees and woodlands enclosing a string of historic springline villages at the foot of the slope to a mix of pastures and arable fields on the steep slopes. The scarp is visible from much of the *Till Vale* and there are long views from the ridge-top road.

The villages have a range of important historic and archaeological sites and many are associated with wooded parkland landscapes.

The most sensitive parts of this landscape are:

- *diverse landscape pattern* on scarp slope;
- *wetlands* - ponds and lakes at the springline;
- *trees and woodlands* - at the foot of the escarpment;
- *village entrances* - narrow, secluded contrast to the ridge-top road along the skyline (Middle Street);
- *historic buildings and parkland* eg Glentworth,
- *village greens, mature trees, limestone walls and churches*;
- *pastures* on western fringes of villages - provide contrast to surrounding arable land.

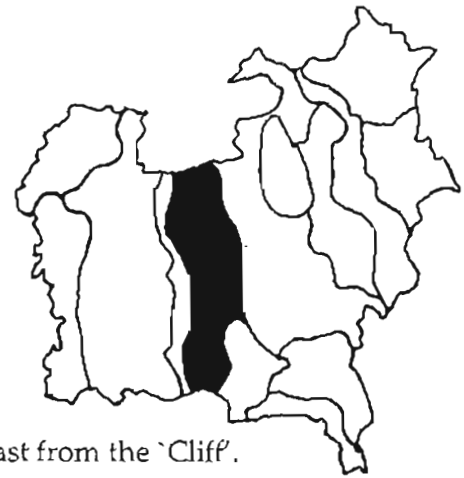
Principles for Landscape Management

- Woodland management - including thinning, possibly coppicing, replanting and tree surgery to mature trees - to ensure these valuable landscape features are retained.
- The management of hedgerows (and hedgerow trees) on the margins of villages and particularly at their entrances will help to retain the characteristic sense of enclosure.

- There may be scope for new hedgerow planting on the western edges of villages to reinforce the contrast in character between the 'Cliff' landscape and that of the open arable farmland to the west. Any new planting should be designed to frame rather than obscure views to village churches and other buildings. Appropriate local tree species include field maple, beech, ash, oak and wych elm; hedgerow species include hawthorn, hazel, dog rose, blackthorn, and privet.
- This narrow landscape band has a wealth of archaeological and historical interest. All proposals to alter land uses and/or the landscape pattern should take account of the findings of historical research. Tree planting or other landscape management schemes may be designed to frame key views and enhance the setting of landscape features with historic interest.
- Wherever possible, the reversion of arable land to grazing pastures should be encouraged to conserve the diverse landscape pattern on the scarp and the striking contrast with the surrounding arable farmland. Priority should be given to the retention of existing permanent pasture.

Principles for Accommodating New Development

- There is relatively little scope for new development in these historic and sensitive villages; only small-scale development of individual sites and the conversion of existing buildings will be appropriate.
- The 'Cliff' villages have a secluded landscape setting, surrounded by pasture and trees; new development should not encroach on the existing small pastures on the fringes of the village and should be associated with new tree planting designed to complement the existing diverse pattern of trees.
- New development and tree planting should be carefully sited and designed to avoid compromising the views associated with the designed historic parkland landscapes which are characteristic of many of these villages.
- There is a risk that further development on the 'Cliff' villages may lead to coalescence and loss of identity.
- Entrances to the villages are particularly vulnerable to change; there may be scope for development which can enhance the existing approach, but it should be carefully sited and designed to complement the existing buildings and form a clear entrance statement.



Key Characteristics

- Limestone dip slope falling gently to the east from the 'Cliff'.
- Exposed, open landscape with redundant airfields in the west.
- Straight roads and trackways; many are ancient enclosure roads with characteristic wide verges backed by hedgerows.
- Important views to Lincoln Cathedral particularly from Ermine Street - very straight Roman road.
- Sparse settlement in the west. Line of small nucleated settlements on slightly elevated more undulating land in the east.
- Individual trees and lines of trees are important landscape features.
- Historic halls and parkland landscapes.

Landscape Description

The *Limestone Dip Slope* falls gently to the east from the 'Cliff'. This is a large scale arable landscape, crossed by a number of straight roads and trackways. Many have the wide verges and enclosing hedgerows typical of the ancient enclosure roads. The Roman road, Ermine Street (A15) is the most prominent route and runs due north-south across the area, linking Lincoln with the Humber crossing to the north. Lincoln Cathedral is centred on the line of Ermine Street, and there is an impressive sequence of views to the cathedral when travelling south along this road.

The landscape feels very exposed and open, particularly in the west. The large redundant air bases in the area contribute to the large scale pattern and featureless character of the landscape. For instance the bases at Hemswell Cliff and Scampton are both in visually prominent positions. Other large scale sites include an agricultural showground between the A1500 and Ermine Street and a large grain store and warehouse style antiques centre at Hemswell Cliff.

Settlements are generally sparse to the west of the character area. Here the landform is smooth and gently rolling and views are generally contained by the roadside hedgerows, but there are extensive panoramic views towards the

Wolds to the east wherever hedges have been removed. Individual trees and lines of trees, particularly ash and oak, are important landscape features.

The land becomes slightly more undulating to the east, where small blocks of deciduous woodland, hedgerows and hedgerow trees provide a stronger sense of enclosure. A line of small nucleated villages including Waddingham, Snitterby and Bishop Norton, are situated in elevated positions on a shallow ridge just to the east of the spring line. Some of the roads in this area have distinctive sharp, right-angled bends. The combination of these bends, the slightly undulating topography and increase in vegetation, often provides a diverse sequence of views on the approach to villages. They may be hidden for a time and then revealed at close quarters. The field pattern on the fringes of settlements is generally smaller in scale and the many hedges and hedgerow trees in these areas provide a sense of enclosure and intimacy. The higher incidence of pasture also contributes to the domestic character of the villages' landscape setting. There are important, attractive, local views to some village churches in prominent positions, such as Waddingham, Snitterby and Bishop Norton. At Glenthams, however, the setting of the church has been degraded by insensitively designed development.

Some of the villages have distinctive landscape elements which contribute to their special identity. For example, a group of willows form a 'gateway' into Normanby by Spital, a line of cherry trees marks the entrance to Owmbly by Spital from the north and a line of ash trees from the south. Spridlington is characterised by a 'gateway' of mature willows and a line of horsechestnuts along the road into the village. There are generally a large number of mature trees within the villages and the dip-slope streams are often attractive features, particularly in Waddingham.

Some of the villages have an enclosed character, with buildings, walls and hedges fronting directly onto the street. The many right-angled turns in village roads and relatively dense built form also helps to curtail views. This is particularly evident in the village of Bishop Norton. Generally the materials used within the villages are limestone and brick, with pantile and brown concrete tile roofs. The presence of mature trees within villages such as Spridlington helps to assimilate a variety of architectural styles, and gives the village a lush green character.

There are some historic halls and parkland landscapes, for example at Norton Place, Hackthorn and Riseholme. Riseholme now houses the agricultural school of De Montfort University.

Landscape Sensitivity

Open arable farmland with long views, although hedged enclosure roads and clustered villages provide enclosure and contrasts in scale.

The potential redevelopment of redundant air bases on prominent ridgetop sites will be a significant landscape issue.

The most sensitive parts of this landscape are:

- *narrow winding lanes* with abrupt turns and junctions - vulnerable to 'improvement';
- *hedgerows and wide verges* on enclosure roads;
- *local landscape features* at entrances to villages along undulating north-south roads;
- *limestone walls*;
- *dip-slope streams*, particularly in villages where they are attractive features;
- *lines of trees* and individual specimen trees (oak and ash);
- *pockets of limestone grassland* on roadside verges and in minor dry valleys.

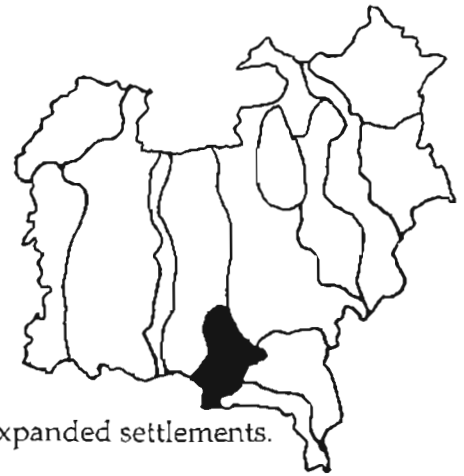
Principles for Landscape Management

- Limestone walls are a special characteristic feature which should be retained and restored.
- Management of hedgerows and verges along enclosure roads will ensure that these distinctive landscape features are retained.
- New tree planting along enclosure roads should be positioned within hedgerows rather than on verges; planting should be designed to retain and enhance the historic sense of enclosure. Appropriate local tree species include field maple, beech, ash, oak and wych elm; hedgerow species include hawthorn, hazel, dog rose and blackthorn.
- The edges of the area's small woodlands are vulnerable to the impact of agricultural machinery; damage can be prevented by maintaining a buffer zone around them and by careful tree surgery to control woodland encroachment. Woodland management should aim to conserve (or in some cases create) a diverse age structure and an intact woodland edge.
- The minor dry valley landforms on the dip slope are often obscured as they rarely coincide with field boundaries. Soils and therefore crop performance are affected by the valley landform and there may be scope for farmers to recognise these subtle topographic variations when planning their crops so that variations in cropping patterns reflect and emphasise the valley landform.
- Many of the dip slope streams dry up during periods of drought, a situation which is exacerbated by the withdrawal of ground water by local farmers. The streams could be kept flowing for longer if the Environment Agency gave priority to the purchase of the historic abstraction licences whenever possible.
- Some enclosure road verges and the slopes of some dry valleys have rare limestone grassland flora. These grasslands require a relatively planned, frequent mowing regime and should be a priority for conservation.

- There is scope to develop a new landscape strategy for Ermine Street, reflecting the unity of its ridgetop setting, the characteristic long views and the long history of this famous route.
- Tree planting and some earth modelling may improve the integration of above ground reservoirs.

Principles for Accommodating New Development

- The development of redundant air bases will require extensive landscape planting. This must be designed to screen and shelter new buildings and to create a sense of local identity. There is a need to introduce a stronger landscape structure at a smaller scale (compatible with the surrounding landscape) within these sites. There may be opportunities to retain the runways and key airbase buildings (traffic control towers, hangers) as focal points in the new development to conserve links with the history of the site.
- Wherever possible, new development in villages should incorporate limestone walls, providing a frontage onto local roads and contributing to the characteristic sense of enclosure.
- Views to churches on the north-south approaches to villages should be conserved when considering the siting and design of new development. The height and massing of buildings are particularly important in this respect and simple photomontage techniques can be used to ensure that building forms complement key views.
- Existing trees and hedgerows on the fringes of villages provide a diverse, relatively soft edge. Any new development should be associated with new planting which is designed to frame rather than screen views from the surrounding farmland.
- The existing mature trees within most of these villages helps to assimilate a variety of architectural styles and to provide a distinctive sense of enclosure. New developments should be designed to incorporate trees of stature (ash, horse chestnut, oak) as focal points *within* the overall layout, as well as on its boundary.



Key Characteristics

- Flat agricultural landscape with a number of expanded settlements.
- Medium sized fields with low hawthorn hedge boundaries and few hedgerow trees.
- Approaches to settlements generally dominated by the built form.
- Views to Lincoln Cathedral.

Landscape Description

The *Lincoln Fringe* is a small area to the north east of Lincoln. It is traversed by the A46, A158 and the railway, which converge towards the city centre. There are significant views of Lincoln Cathedral, particularly along the Roman Road (A158).

This is a relatively flat, agricultural landscape, similar in character to the *limestone dip slope*, although influenced by suburban development on the fringes of settlements and petrol stations. Fields are medium-sized, with low hawthorn hedgerow field boundaries and a few ash and oak hedgerow trees.

Settlements within the area include Welton, Dunholme and Nettleham. While most have retained their distinctive historic core, with village greens, limestone buildings and churches, they have expanded to include some extensive residential areas, many of which are dominated by brick bungalows. All the villages are within easy commuting distance to Lincoln and this has been the catalyst for expansion. The new developments generally have a more open structure, with wide roads and properties set back from the road with front gardens. This has resulted in a lack of enclosure and loss of special identity.

The approaches to the settlements are generally dominated by buildings, which often form a hard edge against the arable fields. There is little integration with the surrounding landscape patterns. The flat agricultural landscape is characterised by long, relatively open views. There are generally few trees, although the oil well at Sudbrooke Park and the housing area nearby are generally well hidden by blocks of mixed woodland and boundary tree planting.

The landscape on the immediate edges of Lincoln is strongly influenced by the perception of the urban area nearby; there is evidence of fly-tipping and a profusion of pylons, road junctions and signs.

Landscape Sensitivity

A relatively flat agricultural landscape with expanded villages and long open views.

There are ongoing pressures for built development in this area, together with associated urban fringe pressures for roads/petrol stations *etc.*

The most sensitive parts of the landscape are:

- *views to Lincoln Cathedral;*
- *the historic village cores* with village greens, churches, mature trees, stone walls *etc.*
- *enclosure roads;*
- *remaining tracts of open countryside between settlements* which often have a relatively nondescript character;
- *trees and hedgerows*, particularly on the fringes of settlements.

Principles for Landscape Management

- There is scope to restore and manage the hedgerows and wide verges of historic enclosure roads, particularly at the entrances to villages.
- This relatively open, large-scale landscape would benefit from a strategy for extensive hedgerow and tree planting. This should be designed to strengthen local landscape character and create a more robust setting for recent (and future) new development. Suitable tree species include oak, ash, crab apple and field maple; hedgerow species include hawthorn, dog rose, dogwood, hazel and blackthorn.
- Control of fly-tipping on the fringes of Lincoln will remove the precedent for rubbish dumping and improve the visual quality of the local landscape.
- More extensive planting will be required to integrate larger structures (schools, petrol stations, commercial buildings) within the rural landscape.
- There are opportunities for new 'greenways' integrating habitat creation schemes with public access (footpaths, cycleways and bridleways) along green corridors which link these outlying villages with central Lincoln.

Principles for Accommodating New Development

- There is scope for a more varied range of buildings (in term of height, scale and style) on the fringes of villages. Buildings can be accommodated

provided they are accompanied by sensitively designed tree and woodland planting.

- The entrances to villages are particularly sensitive and demand special attention. New development in these locations should be designed to create a positive gateway to the village. Buildings must complement the materials and style of those within the historic village core and should be accompanied by stone walls and a distinctive, appropriate planting scheme.
- New village developments should continue the historic development pattern, with new greens, tree groups and other local landmarks to create a distinctive identity, sense of place and community. The existing village greens should form a model for designing new public open spaces which contribute to the hierarchy of spaces, footpaths and cycleways within the village. Trees should be incorporated as part of an overall landscape strategy within the development, as well as along its boundaries.
- The edges of developments on the outer fringes of settlements are often prominent and would benefit from tree and hedgerow planting. New planting should be designed to integrate the development with the surrounding field patterns and to soften and partially screen views from the surrounding farmland. Wherever possible, small fields should be created or retained as part of the land-take of new developments to provide a robust, distinctive landscape setting and a contrast to the surrounding arable fields.
- The relationship between buildings and roads is an important design consideration.



Key Characteristics

- Low-lying, flat fen-like landscape alongside the River Witham.
- Large agricultural fields; some boundaries marked by clumps of shrubby vegetation.
- Some lines of ash and willow trees indicating the wetland nature of the landscape.
- The River Witham flood defence bund is a prominent landscape feature; generally there is little riparian planting along rivers, dykes and ditches.
- Large scale agricultural buildings with little associated planting.

Landscape Description

This narrow band of low lying landscape extends from the *Lincoln Fringe* along the edge of the River Witham to Southrey. The landscape is very flat, with dark soils and a large-scale pattern which resembles the fenlands to the south of the county. Field boundaries are typically open, but there are a few remnant clumps of shrubby hawthorn, field maple and willows, as well as a few lines of ash and willow trees. These remnant boundaries are the few landscape features remaining; they provide some degree of screening and boundary demarcation and indicate the low-lying, wetland character of the landscape.

The grassed flood defence bund of the River Witham is an unrelieved feature in this flat landscape. The area is also crossed by Barlings Eau and a number of dykes and ditches, but they are not visually prominent as they have little associated riparian vegetation.

The only three settlements within this area are Fiskerton, Bardney and Southrey. The concentration of hedgerows and trees in the fields close by helps to integrate the built form with the landscape. The settlements contain a mix of architectural styles, but most buildings are of brick. Fiskerton and Bardney have attractive limestone churches with towers which are distinctive landmarks. There are archaeological remains of an abbey at Bardney, on the route of the Viking Way, which crosses the area near Fiskerton and then follows the line of the River Witham towards Lincoln.

A number of large scale agricultural buildings, including barns, chicken sheds and the sugar factory at Bardney, are dominant structures in the landscape.

Landscape Sensitivity

This is a very flat, open, fen like agricultural landscape, with occasional large structures, rivers, dykes and ditches and few other landscape features. Relatively high levels of visibility render most areas sensitive to change.

The most sensitive parts of the landscape are:

- *remaining trees and shrubby vegetation* - vertical elements in this otherwise flat landscape; they provide some screening and boundary demarcation;
- *riparian vegetation* - gives watercourses a visual presence, while also providing wetland habitats.
- *extensive views* across wide open flat fields which are sensitive to the proliferation of large scale agricultural buildings, and other built development.

Principles for Landscape Management

- Consider planting more riparian vegetation along rivers, dykes and ditches to mark their presence in the landscape and provide opportunities for habitat creation.
- Tree planting, particularly along roads and some field boundaries near to settlements, would help to balance the areas of settlement and large scale agricultural buildings by introducing vertical landscape elements within the flat open landscape. Woodland may be appropriate in random blocks to screen agricultural buildings, but should be designed with the local character in mind.
- The introduction of buffer strips, beetle banks and linear wetland features in drainage channels (such as ledges which can be colonised by aquatic plants) should be encouraged.
- There may be opportunities to identify areas for the re-creation and restoration of wetland habitats identified as a priority habitat in the *Lincolnshire Biodiversity Action Plan (BAP)*.
- The introduction of carefully designed new tree and shrub planting associated with the River Witham flood defence bund, could help to integrate this significant feature with the surrounding landscape pattern.
- Any new planting should use native species typical to this area, such as willow, alder, ash, poplars, hawthorn and field maple.

Principles for Accommodating New Development

- Strategically placed lines of trees and shelter belt planting, using native species, should be considered as a means for integrating new development with the existing landscape pattern.
- The setting of large scale agricultural or industrial buildings may be improved by the introduction of large scale planting; it is important that such planting is of sufficient scale to balance the visual impact of prominent structures.
- Painting large scale agricultural or industrial buildings pale grey/sky colour would reduce their visual dominance, particularly if they are visible against a strong horizon line.
- Views to the churches and central historic centres of Bardney and Fiskerton are a key aspect of the landscape setting of these settlements; any new development should be designed so that these views (from local approach roads) are conserved and framed rather than obscured by new buildings.
- Most domestic buildings in this area are built from brick and have slate roofs; many are rendered white.



Key Characteristics

- Diverse, undulating landscape crossed by many rivers and streams.
- Ancient lime woodland caps shallow hills and forms contrast to surrounding arable fields.
- Medium sized fields, with good hedgerow boundaries and some hedgerow trees.
- Tiny dispersed settlements and individual farms, linked by an extensive network of minor roads and lanes.
- Desertion and shrinkage of some settlements.

Landscape Description

The *Lincolnshire Lime Woods* are found in the south east of the district, on an area underlain by heavy boulder clays deposited and compressed by glaciers at the end of the Ice Age. This is an undulating landscape, crossed by many rivers and streams, including the Barlings Eau and Sambre Beck.

The large deciduous woodlands which cap a series of low hills, contribute to the area's distinctive character. Most form isolated, rounded blocks in a predominantly arable landscape. These lime-dominated woodlands are valuable ancient woodlands, which collectively provide the most important examples of small-leaved lime woodlands in Britain. The area is recognised by English Nature as a Prime Biodiversity Area.

The settlement pattern consists of tiny, dispersed settlements and individual farms, linked by an extensive network of minor roads and lanes. Red brick farms and their out-buildings and local manor houses are attractive features. Archaeological evidence suggests that there has been some desertion and shrinkage of settlements in the area. There are some good hedgerow field boundaries and hedgerow trees, which combine with the woodlands and undulating landform to give the landscape a balanced, quite enclosed character. However, hedgerow gaps and the fragmentation of some woodlands allow occasional longer views towards the Wolds.

The Viking Way passes through the southern part of this area, on the route between Bardney and Fiskerton.

Landscape Sensitivity

The undulating landform, large deciduous woodlands and hedgerows give the landscape some capacity to accommodate change. However, the lime woods are of national importance for nature conservation and are extremely sensitive to any form of change which might effect their ecological status.

The most sensitive parts of the landscape are:

- *the ancient lime woods* - valuable ancient woodlands of nature conservation value which also provide a distinctive visual landscape structure;
- existing *hedgerows and hedgerow trees*;
- any remaining *meadows* - which contribute to the diversity of the landscape, as well as it's nature conservation value;
- the *small-scale, dispersed settlement pattern* of - tiny settlements and individual farms;
- *historic and archaeological sites*, including the grounds of Bardney Abbey and the sites of deserted medieval settlements such as Goltho.

Principles for Landscape Management

- The Limewoods are the subject of a detailed *Forestry Commission Design Plan*, with specific objectives to retain and enhance the unique biodiversity of these woodlands, recently declared a National Nature Reserve (NNR). Any form of landscape management within the NNR conforms to strategies set out in this plan which has been agreed by a range of organisations.
- New woodland planting should be carefully designed as extensions to and links between existing woodlands. It should mimic existing woodland patterns and forms.
- Priority should be given to the retention of existing meadow and thereafter to the reversion of arable to pasture land on the fringes of woodlands. This would increase the valuable woodland edge/meadow habitat and provide a buffer zone to protect the existing woodland edge from damage by agricultural machinery.
- New hedgerow planting could provide crucial links between existing ancient woodlands in places where woodland planting is not possible.
- Native species and natural regeneration from existing stock should be used wherever possible. Local species include oak, ash, field maple, hawthorn, crab apple, dogwood, hazel and blackthorn.
- Planting trees and shrubs (of suitable riparian species) along rivers and streams would enhance the diversity of the landscape, while also introducing new habitats.

Principles for Accommodating New Development

- Large-scale developments would be inappropriate in this landscape, where there is an existing patterns of small, dispersed settlements. Any new development should be of no more than 5-6 buildings and should be closely related to existing settlement, as part of the settlement, but not necessarily contiguous with the existing built fabric.
- New woodland, hedgerow and hedgerow tree planting (of appropriate species native to the area) would help to integrate new development within the existing landscape pattern.
- This is a relatively diverse landscape. Key considerations when siting new development include the sequence of views along roads, views from other properties and the effect of the undulating landform and vegetation.
- The area has many historic deserted settlement sites, which date from medieval times. Historic records should be carefully consulted to ensure that new development does not take place on such sites, which are often found close to existing farms and settlements.



Key Characteristics

- Mix of arable and pasture; large scale field pattern with well maintained hedgerow boundaries and very few hedgerow trees.
- South of A631, the landscape is gently undulating and there are some small blocks of deciduous woodland.
- Land becomes flatter to the north, with open dykes and ditches draining into the River Ancholme.
- Remnants of carr vegetation towards the north.
- Straight roads with characteristic near right-angled corners - often ancient enclosure roads with wide verges and enclosing hedgerows.
- Dispersed, sparse settlements including small villages and individual farms.
- Long views towards the Wolds scarp to the east and occasional long views to Lincoln Cathedral.

Landscape Description

The *Lincolnshire Clay Vale* is an open agricultural landscape with big skies. The fields are of medium size and predominantly arable, with some pasture used for grazing cattle and sheep. In places the clay soils have been modified by thin drifts of coversands. The field pattern is regular with well maintained hawthorn hedge boundaries and very few hedgerow trees. Those hedgerow trees present are predominantly oak and ash, with some occasional lines of poplars and alders close to the New River Ancholme.

The land is low lying and gently undulating south of the A631 and there are some small blocks of deciduous woodland in this area. The landform becomes flatter towards the new River Ancholme, north of the A631, where a number of dykes and ditches drain into the river. Here there are occasional small groups or individual willows and alders along ditches, although most have open banks, devoid of any tall vegetation. These alders are remnants of carr vegetation and are known as North Kelsey, South Kelsey and Waddingham Carrs. The shallow watershed between the River Rase and the River Ancholme flowing towards the north and Barlings Eau and its tributaries flowing south, is not evident in the landscape.

There are long views towards the Wolds scarp to the east and occasional long views to Lincoln Cathedral in the south, on a clear day. The area has a dispersed pattern of small settlements, such as Faldingworth, Bustlingthorpe and Lissington, as well as individual farms. These villages are generally attractively set in trees and their limestone churches are significant local landmarks. There is a large disused RAF base and associated housing at Faldingworth.

Roads crossing the area tend to be straight with definite near right-angled bends. A number of the minor roads follow this same pattern and often have the wide verges and enclosing hedgerows typical of the ancient enclosure roads. The road bends provide a variety of views which are often framed by hedgerow trees.

Landscape Sensitivity

A low lying vale with long views and small, dispersed settlements. There is a branching network of rivers, dykes and ditches. Many of the settlements have related archaeological sites (often Scheduled Ancient Monuments) which provide evidence that the area was more extensively settled in medieval times.

This agricultural landscape is sensitive to changes in European Commission agricultural policy and subsequent trends in farming practice.

The most sensitive parts of the landscape are:

- *historic and archaeological sites* which are often the sites of medieval settlement;
- *hedgerows and remaining hedgerow trees* which provide a distinctive vertical element in the landscape;
- *remaining lines of riverside trees* eg North Kelsey Carr;
- *pasture and meadow* - now a rare element in the landscape pattern eg Kingery Beck Meadows and Pickerings Meadow;
- *rivers, ditches and streams*, particularly the original course of the Ancholme;
- *occasional ancient woodlands* eg Kingerby Wood;
- *enclosure roads* with wide verges and enclosing hedgerows.

Principles for Landscape Management

- Ongoing hedgerow management, including replanting gaps, will reinforce the characteristic landscape pattern.
- New tree planting would create a new generation of distinctive and characteristic hedgerow trees. Oak trees could be concentrated in areas where there are already hedgerow trees, as well as near settlements and farmsteads. Appropriate local tree species include field maple, ash and oak; hedgerow species include hawthorn, guelder rose, dog rose, blackthorn, and honeysuckle.

- Historically, the wider verges of some enclosure roads incorporated ponds to drain surplus surface water. There may be scope to re create some of these attractive valuable habitats.
- There may be scope to create new 'laybys' in the New Ancholme, by cutting false meanders in the riverbank. The meanders would increase the riparian habitat value of the river and would extend the positive influence of a similar scheme downstream.
- There is likely to be a need for increased flood capacity in the Ancholme valley and this may provide opportunities for the restoration of carr woodlands and for the re-creation of washlands and other wetland habitats.
- Consider planting new woodlands, particularly in the southern part of the character area, where there may be scope to extend the landscape character of the Lincolnshire Lime Woods.
- The meanders of the original River Ancholme and its associated ditches provide important riparian habitats; conservation works in the form of dredging, plug planting and creating ledges in some of the ditches will ensure that they are conserved. Tree planting (willows and alders) along water courses would give them a stronger visual presence in the wider landscape, provided flood defences are unaffected.
- The creation of buffer zones alongside watercourses will ensure that pesticides and fertilisers are filtered from the run-off from the adjacent arable land.
- The few remaining wet pastures should be a priority for careful conservation as they provide visual diversity and valuable wildlife habitats within a predominantly arable landscape.
- The area is likely to include some suitable sites for the rare black poplar, which is the subject of a national recolonisation programme.

Principles for Accommodating New Development

- Settlements in this area are characteristically small and dispersed; any new development should be designed to follow this pattern, with small clusters of buildings, closely associated with existing settlements (as part of the settlement, but not necessarily contiguous with the existing built fabric).
- Any redevelopment of the air base at Faldingworth will have a significant impact on this rural landscape. New buildings must be associated with carefully designed planting - some on a woodland scale. New planting can also be designed to reduce the apparent scale of the air base site, creating a

more coherent visual structure and scope for integration into the surrounding landscape.

- The fringes of some existing settlements have important archaeological sites and any new development should be sited and designed so that it does not damage or impose on sites which may be of archaeological value.
- There is a risk that large agricultural structures may be out of scale in this farmland landscape. Any new developments of this kind should be associated with native planting schemes of sufficient scale to integrate the structure with the surrounding landscape pattern.
- Wherever possible, existing mature trees within and on the fringes of settlements should be conserved. New developments should be designed to incorporate new tree planting, building on the characteristic pattern of trees in the area; they are concentrated close to settlements, framing rather than screening views to the buildings and integrating them in the landscape.
- New development in the southern part of the character area should be associated with extensive planting, perhaps in the form of woodlands, as this is on the fringes of the Lincolnshire Lime Woods.



Key Characteristics

- Relatively enclosed, undulating farmland with hedgerows and hedgerow trees.
- Clustered villages set in trees, linked by minor roads on slightly elevated, undulating land.
- Important sequential views to settlements and churches.
- Distinct lines of trees and individual mature trees on approaches to villages.
- Long views towards the Wolds' scarp.

Landscape Description

This is an area of relatively enclosed farmland on slightly elevated land to the north east of the *Lincolnshire Clay Vale*. A series of clustered villages are sited on minor hills and linked by minor roads. The land is more undulating than the surrounding clay vale and there are more hedgerows, hedgerow trees and small deciduous woodlands. The fields in this area are relatively small and those on the fringes of settlements are often used as pasture. These factors combine to give a landscape with a stronger sense of enclosure than on the adjacent *Lincolnshire Clay Vale*.

The string of small, nucleated settlements includes North Kelsey, South Kelsey and North Owersby. They are sited along a north-south minor spine road, which twists and turns over the undulating landform and round field boundaries to reveal a sequence of views of the settlements. The villages are sited on higher ground and are fringed with trees. Some are approached through distinctive lines of trees and individual mature trees, including oaks, ash and poplars.

There are long views across the wooded plantations around Market Rasen and Caistor towards the prominent scarp slope of the Wolds.

Landscape Sensitivity

Relatively enclosed farmland with clustered villages on slightly elevated land.

The most sensitive parts of the landscape are:

- *remaining pastures;*
- *the sequence of views to villages* along the north-south spine road;
- *hedgerows and trees, particularly at the entrances to villages;*
- *the winding character of the rural roads;*
- *lines and avenues of mature trees.*

Principles for Landscape Management

- A programme of hedgerow management and hedgerow tree planting would conserve this distinctive characteristic. Trees should be planted to create distinctive approaches to settlements and farms and to frame key views. Suitable tree species include oak, rowan and possibly sweet chestnut and beech; hedgerow species include hawthorn, gorse, holly and dog rose.
- There may be opportunities for the restoration or creation of grassland. This would enhance the habitat value and visual diversity of the local landscape. Priority should be given to the retention of existing meadow.

Principles for Accommodating New Development

- Within villages, development should contribute to the characteristic sense of enclosure, with brick or limestone walls and hedgerows fronting the streets and trees of stature (oaks, limes, horse chestnuts) within gardens or along boundaries.
- Buildings at sharp bends in the village street (a local characteristic) are always a focal point. New developments in such locations should be designed with particular care to ensure that they complement the existing traditional village buildings and create a strong sense of enclosure.
- There may be scope for new development to help create a stronger sense of identity in some of these settlements, particularly South Kelsey. This can be done by designing buildings in conjunction with open spaces to form a strong visual focus, and by planting distinctive patterns of trees and hedgerows. North Kelsey has a distinctive character and may provide a useful model for the design of new development in the other villages.



Key Characteristics

- Large conifer plantations on acidic soils formed on areas of coversand.
- Gorse, birch trees and acid grassland indicate heathland character within the agricultural landscape.
- Mix of arable fields and pastures with patchy clumps of hedgerows and few hedgerow trees.
- Distinctive lines of oaks, straight ancient hedgerows and small deciduous woodlands near Holton le Moor.
- The fringes of Market Rasen and Caistor have a relatively wide range of land uses.

Landscape Description

The *Heathland Belt* is situated on a low lying area of wind blown coversands overlying the Jurassic and glacial clays on the north western fringes of the Wolds escarpment. The heathlands are found on a tract of land between the two market towns of Market Rasen and Caistor.

The acid heathland has been extensively planted with large conifer plantations, dominated by Scots pine and Corsican pine. They are particularly evident to the north and east of Market Rasen and to the south west of Caistor. These plantations and the areas of acid grasslands within the agricultural landscape, create a distinctive character. Where the coniferous plantations have no deciduous edge planting, they form a dark vertical edge. This stark visual edge is particularly dominant in views from the Wolds between Walesby and Tealby. However, in some locations deciduous edge planting has helped to integrate the conifer plantations with the surrounding landscape.

The pattern of the agricultural landscape varies from large-scale arable fields and pastures, to the smaller scale pastures used for horses and free range chicken, which are found immediately to the north of Market Rasen. Fields are enclosed by low hedgerows and hedgerow trees, although there are also examples of 100 year old straight hedgerows, which date from the relatively late conversion of open common lands to enclosed fields. Gorse is often

present in hedgerows and road verges, indicating the acidic nature of the soils.

The landscape on the outskirts of Market Rasen has a particularly diverse pattern and a variety of uses including agriculture, light industry, kennels, nurseries, a race course, golf course and camping areas. The blocks of woodland, hedgerows and trees help to accommodate this varied range of land uses in a predominantly flat agricultural landscape.

Within the woodlands there is a strong sense of enclosure. There is an attractive deciduous edge alongside many of the roads within the plantations and parking, picnic areas and trails have been designed to encourage recreational use of the woodlands. Many of the woodlands include small streams, flowing from the chalk escarpment into the *Lincolnshire Clay Vale*. The Forestry Commission's *Design Plan* for woodlands such as Willingham Wood uses such riparian corridors as a framework for a sequence of linear open spaces within the forest.

North of the woodlands surrounding Market Rasen, the land is slightly more elevated and the heathland character is more evident; there are birch trees and clumps of gorse alongside fields adjacent to the A46. These areas retain names such as Claxby Moor, Owersby Moor and Nettleton Moor. The distinctive oak avenues and small deciduous woodlands along the A46 near Holton le Moor, may represent remnants of a parkland landscape. The flat farmland immediately to the west of Caistor has been developed for commercial and industrial uses, as well as residential estates. The built development is strung out along the straight roads which approach the town on this side.

North west of Caistor, along the A1084 below the indented slopes of the Wolds, the landscape is predominantly agricultural with a mix of arable fields and pastures. Fields are of medium size with patchy clumps of hedgerow, a few hedgerow trees and some small deciduous woodlands. A number of fields adjacent to the A1084 house pigs with their distinctive rounded sheds.

Landscape Sensitivity

This landscape of acid heathland and agricultural land, between Caistor and Market Rasen is dominated by large conifer plantations of mainly Scots pine and Corsican Pine. Views are relatively contained and there is some capacity to accommodate change.

The most sensitive parts of the landscape are:

- *existing open heathland and pastures*, such as Linwood Warren;
- *approaches to Caistor and Market Rasen* where there are pressures for a mixture of land uses, including golf courses, nurseries, light industrial areas and recreational uses;
- *woodland edges* - these structure views (particularly towards the Wolds) and form a dark backdrop to most views within this area;

- *species-rich ancient hedgerows.*

Principles for Landscape Management

- As the even-aged plantations come to be felled and re-structured there are opportunities to design felling coupes and new planting to improve visual diversity and nature conservation value. The *Design Plan* prepared by Forest Enterprise provides strategic guidance.
- The introduction of a deciduous edge to conifer plantations, where there is none, would help to integrate the woodlands with the surrounding landscape and may be relevant in woodlands which have not yet reached their full economic rotation.
- Management of remnant heathland, with grazing to prevent birch regeneration should be considered wherever possible.
- The management of woodland walks, clearings and opportunities for recreation within the woodlands, should be considered in relation to an integrated woodland management plan, balancing nature conservation and recreational value.
- Any additional woodland planting should be concentrated on agricultural land, avoiding areas where there is potential for heathland restoration and re-creation.
- There is scope to develop a landscape strategy for the management and renewal of the distinctive hedgerow oaks.

Principles for Accommodating New Development

- Any new development on the fringes of Market Rasen or Caistor should be accompanied by mass planting which is designed to help integrate the development with the surrounding landscape pattern. It should include elements such as mixed woodland, hedgerows and hedgerow trees (predominantly oaks).
- Infill sites are particularly sensitive to change and require careful siting and design. The relationship between buildings and the street is important - new developments should retain the characteristic sense of enclosure by addressing the street directly by walls or the buildings themselves. Brick walls provide unity and enclosure along streets throughout the town, linking adjacent buildings and providing an attractive, varied built edge. They should be included as a fundamental part of any new development.
- Further development on the prominent higher ground to the east should be discouraged as it may affect the wider landscape setting of the Wolds'

escarpment; the flatter, relatively wooded areas are more suitable for accommodating change.

- Existing building materials are predominantly dark brick with pantile or slate roofs; many buildings are rendered white, particularly in the Market Rasen area.
- The linear development along the straight 'moorland' roads to the west of Caistor already lacks a visual relationship with the town. Further linear development should be discouraged and new buildings designed to create a stronger sense of place. Key views to the town centre should be identified and conserved and there is scope to give the existing buildings a stronger identity and unity by planting lines of trees (a characteristic feature of the area) along some routes.
- The dispersed pattern of development on the fringes of Market Rasen (individual industrial buildings, farms and cottages should be retained and linear development discouraged so that the striking, abrupt entrance to the historic town centre is conserved.
- Development should be avoided on heathland areas to preserve this limited habitat type.
- The choice of colours or materials for large scale agricultural or industrial buildings should take account of their backdrop and wider landscape setting so that they can be integrated successfully into the landscape.



Key Characteristics

- The Wolds' scarp slope with exposed scars of chalk and outcrops of ironstone is a prominent vertical feature in the landscape.
- Steep, hummocky scarp slopes, generally in rough pasture with occasional wedges of woodland and areas of scrub.
- Convolut ed landform, with landslips, wet flushes and minor spoil heaps from iron workings.
- Villages sited along springline at foot of the scarp.
- Top of the scarp is high and exposed, with extensive views towards the north and west.
- High Street - a winding minor road with extensive westward views; minor hill crests along the road marked with distinctive clumps of beech trees and tumuli.
- Few settlements except scattered farmsteads, and occasional large farm buildings.
- Clusters of unsightly telecommunications masts and a large chalk quarry near Caistor.

Landscape Description

The *North-West Wolds Escarpment* is a pronounced escarpment, with exposed scars of chalk and outcrops of ironstone. The scarp face and its ridge line form a prominent vertical feature in the landscape which can be seen for miles from the west. Rough pasture predominates on the slopes of the scarp, with occasional wedges of woodland, areas of scrub, wet flushes and old ironstone workings. The slopes are steep, hummocky and indented by the action of minor streams and landslips.

At the bottom of the scarp there are a number of small attractive villages, including Bigby, Owmbly, Searby and Grasby to the north west of Caistor, and Claxby, Tealby and Walesby further south. The distinctive building materials in Tealby and Walesby are ironstone and Tealby Limestone is used for the

prominent hill top medieval church at Walesby. However, brick is the dominant building material in the villages to the north of Caistor.

There are extensive views from the top of the scarp to the north and west, particularly between Nettleton and Normanby le Wold. The latter seems high and exposed. To the east of the main scarp face, south of Caistor, the parallel river valleys of Nettleton Beck, Usselby Beck and the River Rase are backed by a higher ridgeline running along the line of High Street. Within these valleys, small deciduous woodlands often cover the steep slopes and narrow valley floors. High Street forms the eastern boundary of the character area. It is a quiet, winding minor road with extensive westward views. There are few settlements except for scattered farmsteads. The crests of small hills along the road are marked by distinctive clumps of beech and tumuli. However, clusters of unsightly telecommunications masts, a large chalk quarry near Caistor, and occasional large farm buildings, detract from the landscape in places.

The Roman town centre of Caistor has a defensive site on the Wolds' escarpment. The ironstone church tower at Nettleton with the backdrop of the Wolds scarp, is a distinctive landmark on the approach to Caistor from the south, although this view is somewhat degraded by roadside lighting, signage and some new development. The historic centre of Nettleton is just east of the A46, but newer development, including brick bungalows and a school, has spread along the main road. The Red Chalk SSSI, to the east of Nettleton Top, is of geological and ecological importance and the former ironstone mining areas have a distinctive, small-scale hummocky landscape character.

Caistor's buildings are predominantly brick or rendered and painted white or cream, with pantile, brown concrete tile, or slate roofs. The distinctive main street pattern focuses on a series of squares including Horsemarket, Buttermarket and Corn Hill. West of the centre of Caistor, along the straight Roman road to North Kelsey, there is a light industrial area (North Kelsey Industrial Estate) with warehouse style sheds. Further west, the extensive area of chicken or duck sheds at Highfield Farm is open to views from the road.

Landscape Sensitivity

The highly visible scarp face and ridgeline are prominent landscape features which can be seen for miles from the west. This part of the Wolds is therefore particularly sensitive to landscape change.

The most sensitive parts of this landscape are:

- the *highly visible ridgeline* - clusters of radio and telecommunications masts along "High Street" are already prominent and a proliferation of such structures would detract from the attractive, open skyline;
- the *scarp face* - sensitive to mineral or landfill activity, as well as to changes in proportion of arable: pasture;

- *Wolds villages* - pressures from built development, parking and tourism, particularly close to the Viking Way;
- *chalk grassland* - rare flora and fauna;
- *archaeological sites* - on ridgeline;
- *distinctive tree clumps* and other ridgeline features, including the small-scale rural lanes and steep hedgebanks;
- The *wet flushes* at the boundaries between different geological strata along the scarp.

Principles for Landscape Management

- The management of the remaining chalk grassland areas should be considered a priority; monitoring of stocking levels and ongoing scrub clearance may be required. Priority should be given to the restoration of chalk grassland on land adjacent to the existing managed sites, particularly where there is scope to create new links between the existing grassland habitats.
- Where possible, hedgerows should be trimmed to allow extensive views out from the ridgeline roads.
- The distinctive ridge-top clumps of beech require special management in the form of tree surgery, thinning and replanting if these valuable landscape features are to be retained.

Principles for Accommodating New Development

- Generally, new development should be severely restricted along the prominent ridgeline and scarp face; new buildings can only be accommodated at the foot of the scarp or on the lower slopes, following the existing settlement pattern.
- Careful consideration should be given to the siting of buildings, taking account of local topography, vegetation and views. Buildings which are sited at the foot of slopes or in the folds of undulating ground are characteristic; they should be associated with substantial tree planting designed to integrate them with the surrounding contours and landscape pattern.
- Any expansion of existing settlements or new developments should use appropriate materials. Ironstone is no longer available, but dark brick, white render and some limestones are also characteristic of the area.
- Linear development is already beginning to blur the identity of the larger villages; it should be restricted to ensure that new buildings contribute to the character and setting of the village.
- The existing irregular open spaces and small fields remaining within small villages such as Tealby should be conserved to protect the landscape

setting of the existing buildings - they should be set against a backdrop of farmland. Substantial blocks of development would be inappropriate in this natural landscape setting and there is a risk that they would detract from views to the Wolds from farmland to the west.



Key Characteristics

- Open, rolling arable farmland on Wolds' dip slope, with dramatic, inward-facing valleys and dry valley features.
- Most roads run east-west along low ridgelines, many with wide verges backed by hedgerows and hedgerow trees, characteristic of ancient enclosure roads.
- Valley bottoms are marked by woodlands and steep valley slopes near villages are often used for grazing.
- Intimate valley landscapes contain small settlements, mixed hedgerows and winding trackways.
- Attractive landscape setting to large houses and halls.
- Former RAF Binbrook airfield and its associated housing has a wide influence on the landscape.

Landscape Description

The broad chalk dip slope extends eastwards from the *North West Wolds Escarpment*. This is an elevated, rolling landscape with a broad, rounded landform, dominated by arable farmland. The dip slope is structured by a network of rolling, inward-facing valleys and dry valley features, representing the glacial lakes and spillways that covered wide areas of the Lincolnshire Wolds at the end of the last glaciation. The contrast between the arable tops and the lush wooded valleys is characteristic of this area.

The land dips gently to the east of High Street, with most roads running eastwards along low ridgelines. Many have the wide verges, backed by hedgerows and lines of ash and beech, which are characteristic of enclosure roads dating back to the parliamentary enclosures. Most of the land is in intensive arable use, but some steep valley slopes and valley bottoms are marked by woodlands, for example near Stainton le Vale. Clumps of mature beech, Scots pine and sycamore are characteristic and horse chestnuts are common features within valley settlements.

The northern part of the dip slope is dominated by two strong valley landscapes, centred on Laceby Beck, around Rothwell and Cuxwold and Waithe Beck, around Thoresway and Thorganby. These more intimate valley

landscapes contain some villages of Saxon and medieval origin, mixed hedgerows, winding trackways and other pre-enclosure landscape features. The steep valley slopes, near to the villages, tend to be used for sheep and cattle grazing. Around Rothwell, a local landowner has left an individual mark on the landscape; his extensive land-holding is marked by well maintained A-shaped hedges and daffodil- planted verges. The tall fountain of water glimpsed in the trees when approaching Rothwell from the south, is another distinctive landmark. Elsewhere, large houses such as Swinhope Hall have attractive parkland settings, with distinctive tree clumps and framed views.

The former RAF Binbrook airfield and associated housing, situated on high open ground to the south east, has a wide visual influence. There are important views to the Grimsby Dock Tower (near Thoresway) and the Stennigot and Benniworth masts.

Landscape Sensitivity

This landscape with its special character of open arable tops and dramatic, lush wooded valleys forms part of the Wolds AONB and is highly sensitive to change.

The most sensitive parts of the landscape are:

- *chalk grasslands* - continued grazing of these is necessary to retain their botanical interest and prevent eventual succession to woodland.
- *small woodlands and hedgerow trees* - many planted in the 18th and 19th centuries require management and renewal to retain their structure.
- *archaeological sites* - many tumuli are distinctive local landmarks;
- *ancient enclosure roads* - characteristic hedgerows and wide verges.

Principles for Landscape Management

- The reversion of arable land to pasture should be encouraged, particularly along valley floors, where the elongated meadows provide a contrast to the large-scale farmland of the uplands while also emphasising the alignment of the landform.
- Management of existing chalk grasslands is essential to retain their botanical interest; continued grazing at carefully defined stocking levels will prevent the development of scrubby vegetation. Priority should be given to the expansion of chalk grassland, particularly if there is scope to create new links between existing habitats.
- The development of farm-based landscape management plans covering grasslands, woodlands, copses and hedgerow trees could be designed to ensure the management, replacement and renewal of the characteristic Wolds landscape pattern. Special attention should be given to strategies for the renewal of the distinctive beech clumps, enclosure roads and

hedgerow trees to ensure the conservation of these ancient, distinctive landscape features.

- The distinctive structure of the historic enclosure roads should be conserved by management of the characteristic hedgerows and wide verges. Tree planting should be confined to hedgerows to conserve the sense of enclosure and allow management of the verges.
- Identification and restoration of important hedgerows, particularly the old mixed species, pre-enclosure hedgerows which often give visual emphasis to characteristic breaks of slope .
- New woodland planting and ongoing management should be designed to reinforce the existing pattern of woodland within the valleys, which typically emphasises the chalk landforms. Hawthorn, beech, field maple and ash are the most suitable local tree species.
- There is a risk that archaeological remains may be irreversibly damaged by agricultural practices such as deep ploughing and by the erection of agricultural structures.

Principles for Accommodating New Development

- New built development and farm building conversions require high standards of siting and design in this distinctive and sensitive landscape; buildings and walls should be constructed from local materials and should be of an appropriate scale; - some local farm walls are high enough to create striking built features within the valley landscape.
- Any new development within villages should be visually contained, following the existing settlement pattern; linear development along the valley approach roads is inappropriate and detracts from their distinctive landscape setting.
- Large scale housing, roads and minerals or industrial development cannot be successfully accommodated within this landscape; redevelopment of the Binbrook air base should incorporate strategic planting, designed to screen buildings, reduce the apparent scale of the land-holding and create a new landscape structure which relates to the surrounding landscape pattern.
- Building materials are predominantly brick, with some chalk and pantile roofs.



Key Characteristics

- Arable landscape with a regular pattern of medium sized fields.
- Extensive belt of mixed deciduous and coniferous woodland gives some sense of enclosure and a backdrop to views.
- Settlements have attractive wooded settings and the majority of buildings are constructed in a characteristic 'estate style'.
- Parkland landscape with distinctive individual mature trees and groups of trees near Brocklesby.
- Widespread influence of Brocklesby Estate, with large stone gate posts, post and rail fencing and a castellated gate house
- Larger and more open fields east of the B1211 and A18, allowing distant views across the flat landscape, towards Immingham Docks.

Landscape Description

The *Wolds' Estates* landscape is located to the north east of the district. It is a relatively open, agricultural landscape with a distinctive pattern of woodlands and shelterbelts. The regular field pattern is structured by well maintained hedgerows. These are particularly robust alongside local roads, but form more patchy boundaries elsewhere. An extensive belt of mixed deciduous and coniferous woodland on the fringes of the Brocklesby estate provides a broad sense of enclosure and a backdrop to views in this otherwise open landscape.

The settlements of Great Limber and Brocklesby, have attractive wooded settings. The majority of buildings within these villages are constructed in a characteristic "estate style" using yellow/brown brick with slate roofs and distinctive white painted wooden finials. Brocklesby Hall, its stables and landscaped lake are set in attractive parkland at Brocklesby, and there is a mausoleum in a woodland setting at Great Limber. These landmarks, together with individual mature parkland trees and groups of trees are landmarks within this designed landscape. A copse of copper beech trees is a particularly striking feature in a field to the south of Brocklesby. Other indications of the 'estate' are stone gate posts, post and rail fencing and an elaborate, castellated gate house to the north west of Brocklesby.

To the east of the B1211 and the A18 near Keelby, the fields are larger and the landscape more open and the village of Keelby has a relatively exposed setting. From here, there are distant views eastwards to the cranes and structures at Immingham Docks and to the oil refineries and transmission lines on Humberside.

Landscape Sensitivity

This well maintained estate landscape with its mix of woodland belts, agricultural fields, designed parkland landscapes and settlements, has a distinctive pattern and character. This landscape may be able to accommodate some change, if handled carefully.

The most sensitive parts of the landscape are:

- *open landscape* to the north east of the area, where there are relatively few hedgerows and trees;
- *woodland edges*, which form a backdrop to views and enclose areas of the landscape;
- *historic parkland landscapes* - designed features and framed views;
- *Individual specimen trees and distinctive groups of trees* - copper beech trees in Brocklesby Park; stand of poplars on the approach to Brocklesby village.
- *estate villages* - such as Brocklesby and Great Limber
- *views to historic built features* - including gate houses, decorative stone gate posts, a mausoleum, stone walls.

Principles for Landscape Management

- The existing mixed deciduous and coniferous woodlands should be managed by thinning, coppicing and/or replanting so that they provide a rich variety of species, structure and visual enclosure in the landscape.
- Investigate the history and design of the parkland landscape and develop appropriate management strategies to facilitate the renewal of distinctive features such as individual specimen trees, distinctive groups of trees and grazed parkland areas.
- The ongoing management and replanting of hedgerows and hedgerow trees will enhance the overall landscape structure, particularly in the northern part of the area, where it has become degraded. Ash and hawthorn are the most appropriate species, but they can be accompanied by field maple, hazel, beech, Scots pine, wild cherry, oak and lime.
- The introduction of belts of woodland to the north east of the A18 and B1211 may help to provide more structure and enclosure in this area, while also reducing the visual impact of structures at Immingham Docks and the oil refineries on the Humber estuary. Wherever possible, new woodlands should be designed to link existing woodland and shelterbelts.

Principles for Accommodating New Development

- The siting and design of new development should take account of the setting of historic parkland landscapes and the many individual landmarks which are characteristic of the area.
- Any expansion of existing 'estate villages' should reflect the distinctive character, style and building materials of the existing settlement; materials within estate villages are predominantly yellow/grey brick with slate roofs and distinctive white painted wooden finials. Elsewhere, red brick with pantiles or slate roofs, and some white painted, rendered brick buildings are typical.
- New development should be accompanied by planting which is designed to integrate it within the surrounding landscape pattern; there will often be opportunities for substantial planting in the form of woodland belts, trees and hedgerows.

The landscape of West Lindsey is in a constant state of flux. In the past, the pace of change was largely controlled by the activities of major landowners who amalgamated holdings and established patterns of local economic activity. The strong influence of the railways and industrial growth during the 19th century was more transient and is now waning. But increases in the scale and intensity of agricultural production have since transformed the rural landscape and the expansion of built development and infrastructure on the fringes of towns and villages has brought a further wave of change.

The pace of change is now more rapid than ever and its implications are always difficult to assess. Changes regarded as negative by some may be seen as improvements by others; perceptions change with time and new features will often become established as valued elements of the landscape. However it is crucial that change is managed to retain or enhance the qualities which make the landscape of West Lindsey special.

This section examines the driving forces behind change in West Lindsey, setting changes in a long term context and analysing trends for the future. It includes broad guidelines for each of the principal forces for change. These indicate how change can be managed to ensure that it has a positive influence on landscape character.

3.1

PLANNING FRAMEWORK

The Lincolnshire Structure Plan sets the strategic framework for planning policy in West Lindsey. Key principles guiding the development of Structure Plan policies are:

- to develop more efficient land use patterns in the county;
- to maximise the re-use of derelict, degraded, and disused land;
- to achieve quality of design and layout for new development;
- to safeguard the county's natural resources
- to enable residents of the county to improve their quality of life.

These principles imply a broad land use strategy which is designed to achieve sustainable economic growth, while protecting the built and natural environment through the prevention of new development in inappropriate locations.

The West Lindsey District Local Plan is to be reviewed during 1999. Many policies have direct implications for landscape character and managing landscape change. For instance, Local Plan policies make specific reference to the conservation of undeveloped breaks between settlements (Policy G9), development on the edge of settlements (Policy ENV12), the conservation of

characteristic views (Policy C2) and the siting of large agricultural buildings (Policy C3).

3.2

BUILT DEVELOPMENT

In the past decade, built development has occurred on the fringes of towns and villages throughout the district. However, the greatest expansion has been concentrated in settlements within commuter distance of Lincoln. This trend is set to continue, but the Structure Plan's strategic policies aim to incorporate 60% of new development within existing urban areas. This suggests that there is likely to be considerable new development within the principal towns of Gainsborough, Caistor and Market Rasen. There is also some ongoing pressure for further development on the fringes of the district's villages, particularly in the Wolds, as this area is a popular destination at retirement.

3.2.1

Expansion of Existing Settlements

The Local Plan identifies capacity for additional built development within and on the fringes of most of the district's settlements. Much recent new development has been in the form of housing estates and sites for industrial, retail and commercial units. Where new development occurs on the edges of existing settlements, there is a risk that it may encroach on the setting of distinctive landscape features or views, threatening their special character and sense of place. For instance, churches are important local landmarks and a focus for views on the approaches to the majority of the district's settlements but these key views may be obscured by peripheral development, particularly where settlements have been bypassed and the original approach altered.

The district's many small rural villages are particularly vulnerable to the impact of homogeneous residential development which does not reflect the characteristic architectural style, scale and materials of the village core. Villages within a 5 mile radius of Lincoln, such as Welton, Saxilby and Nettleham have been subject to much recent expansion and pressures are likely to continue to be particularly acute in areas within easy commuting distance of the city.

Retail and commercial developments are concentrated on the fringes of Caistor and Gainsborough, although there are ongoing pressures for petrol filling stations, garden centres and hotels close to principal roads throughout the district. Most are on a relatively small scale, although low density commercial development to the west of Caistor forms a bland and predictable gateway to the town on this side.

The district's many redundant air bases have an uncertain future. The bases at Binbrook, Hemswell Cliff, Faldingworth, Sturgate and Blyton are partially used for commercial enterprises, but the majority of the land and buildings are derelict. There is some new residential development on part of the largest base at Scampton and some of the airfields are used for recreational flying.

The air bases are generally on relatively exposed and therefore prominent sites so their future development will have a wide visual impact on the surrounding landscape.

There are also opportunities for the conversion of derelict buildings. Market Rasen, Gainsborough and Caistor have a rich architectural and industrial heritage and the sensitive conversion and re-use of town centre buildings will ensure their distinctive townscape character is conserved. There are particular opportunities for large scale conversion and re-use in Gainsborough, where the river-front improvements may, in time, provide a catalyst for the redevelopment of a key part of the historic core.

3.2.2 *Buildings in the Countryside*

Many agricultural buildings can be erected without planning permission. They are often large and prominent in the open sweeping views which are characteristic of the clay vales. Intensive livestock units, such as duck and poultry sheds are a familiar sight in the farmland, but there are also large storage sheds for potatoes and other produce.

There are growing pressures for the conversion of agricultural buildings and other isolated buildings in the countryside. The Lincolnshire Grasslands Project may influence the prospects for the conversion of some agricultural buildings by providing grants for the restoration of buildings that can be used for livestock farming. This is a particularly important issue in West Lindsey, as farm buildings are often prominent and attractive features within the wider landscape.

3.2.3 *Broad Landscape Guidance for Built Development*

The principal document providing statutory advice on the siting and design of new built development is the West Lindsey District Local Plan. The *Lincolnshire Design Guide for Residential Areas* and the forthcoming *West Lindsey Countryside Design Summary* which is to be the basis of future work on Supplementary Planning Guidance, are also of relevance.

Character is always in flux and there is a need to allow the character of contemporary and innovative architecture to develop. Design guidance should not be seen as a recipe for stagnation. Principles for sustainability and energy efficiency will become increasingly important as criteria for assessing the quality of new built development. Key factors include layout, siting and design, the selection and use of materials and consultation with local communities.

Broad Landscape Guidance for Built Development

Siting

- Site new built development in sheltered positions on lower slopes, using landform and planting as protection from prevailing winds.

FORCES FOR CHANGE



Large Agricultural Structures



Oil Well - Nodding Donkeys



Redundant Traditional Farm Buildings



Above-Ground Farm Reservoirs



Re-Use of Buildings on Redundant Air Bases



Chalk Quarry



New Road-Side Planting



Poor Quality Re-Use of Historic Buildings

-
- Avoid siting buildings close to the crest of ridges, particularly where they may appear on the local skyline.
 - Consider the potential impact of new buildings from a range of viewpoints, both in the immediate surroundings and the wider countryside, placing particular emphasis on views from public rights of way.
 - Examine the traditional relationship between buildings and local roads and use this to inform the siting of new built development; in general, avoid linear, suburban style development which faces directly onto principal roads.
 - Encourage the sensitive conversion of derelict traditional buildings, particularly in areas close to other settlements; those in remote, isolated situations may not be appropriate candidates for conversion.

Design

- Use the scale, spacing, orientation and siting of existing settlement as a model for considering how new development can be fitted into the landscape without disrupting its traditional pattern and grain.
- Respect existing field boundary patterns and ensure that fencing, hedgerows and lighting along property boundaries are subtly delineated, particularly in rural locations, where they should merge naturally with adjoining fields and woodland. Careful siting and design of boundary walls and fencing can help to integrate new development with the surrounding landscape.
- Minimise disturbance to the local landform and design earthworks associated with new development to integrate buildings with the local landform; avoid the use of substantial retaining walls or under-building on sloping sites.
- Consider the potential impact of surface water drainage and maximise the use of porous materials. Swales and attenuation areas can be designed to provide valuable informal open spaces within areas of built development.
- Consider the location and scale of outbuildings, driveways, access roads and areas of hard-standing as part of the overall design, ensuring that they are not dominant in views from the road.
- Minimise the scale of new development, particularly modern agricultural or commercial buildings, and design exterior finishes, colours and details to reduce the apparent size of the building.
- Retain as many existing trees as possible and plant native trees to help screen and accommodate built development, particularly where it forms a continuous line at the foot of steep slopes.
- Use buildings, styles, forms and architectural details which are characteristic of the local landscape; most contribute to a simple, sturdy and distinctive regional style.

Use of Materials

- Give careful consideration to the materials and colours of buildings in the countryside, taking inspiration from existing vernacular buildings and using local materials and building techniques wherever possible.
 - Limit the range of materials used on any one building and use natural materials, such as timber, stone and slate to link with existing buildings and trees.
 - Select cladding materials and colours for modern agricultural, forestry or industrial buildings to minimise their impact in the surrounding countryside; avoid the use of very light colours, which can reflect the light, and intense greens or blues, which often clash with the surrounding natural tones of fields and woodland.
 - Ensure that the materials and colours used are in harmony with one another and with existing buildings nearby.
 - Avoid strong contrasts between ornamental garden plants and styles and the surrounding natural landscape
-

3.3 *INFRASTRUCTURE*

3.3.1 *Roads*

Recent changes in transport policy to reflect a more sustainable approach are likely to restrict the development of new roads. The Structure Plan lists a number of relatively minor improvements to the district's road network, including the Caistor Western bypass, Gainsborough to Scotter route improvement and the Middle Rasen bypass. Government policy on transportation planning suggests a stronger emphasis on minimising the impacts of transport on the environment, an improved public transport system and more integration between land use and transportation planning. National transport policy now recognises that the demands of future traffic growth should not be met simply by building new roads.

While major new road schemes are likely to be limited in future, minor road improvements and the development of privately financed roads within new housing, retail and commercial developments may nonetheless represent a significant force for change, particularly in rural areas. Here the cumulative impact of minor road improvements can have a homogenising influence on local landscape character. Pressures from increasing volumes of traffic, and in particular from heavy vehicles, have been the catalyst for straightening sections of roads, introducing kerbs, signage, white lines and lighting, and the removal of hedgerows and trees at junctions to provide visibility splays and sightlines. An increased emphasis on road safety and the upgrading of minor roads to meet the standards of current legislation has also played a part. Planning applications for new rural developments are generally required to minimise the impact on road frontages and to reinstate any hedgerows removed to improve visibility along new alignments. There is also a need to continue and extend this emphasis on high standards of design, and to pay particular attention to the conservation of local roadside features, such as hedgebanks, stone walls and bridges, which may be vulnerable to insensitive improvements.

Public transport is a key component of the transportation system yet many rural areas have an irregular bus service. The situation is hampered by the relatively low density of development and an overall increase in car ownership.

3.3.2 *Overhead Transmission Lines, Telecommunication Masts and Pylons*

Overhead transmission lines are prominent in the open arable landscapes of the broad vales and on the Wolds escarpment, where they cut across the grain of the land.

Single high communication masts or towers are associated with civil aviation, defence industries and the various telecommunication companies. Many such structures have permitted development rights and they may not be subject to planning constraints. They are particularly prominent on the open upland summits of the Wolds, where there are a number of masts. It is difficult to

predict whether the development of new masts will continue to be a significant force for change in the future as technology in this field is constantly being updated; by combining a number of transmitters onto single masts and removing any masts which have become redundant, it may be possible to minimise new developments.

3.3.3 *Renewable Energy*

There have been no applications for major wind farm developments on the Wolds, although some applications for single wind turbines have been refused. This seems unlikely to represent a significant force for change in the future, but the possibility cannot be ruled out. Wind farms must be sited in areas with a high wind speed and are prominent visually. They would have a significant impact on the distinctive and relatively small scale upland landscape of the Wolds.

3.3.4 *Flood Control Schemes and Reservoirs*

West Lindsey has three major river systems, the Trent on the western border and the Ancholme and Witham in the Lincolnshire Clay Vale to the east. All the principal river channels are enclosed by embankments which contain and control the flood waters. They also serve to prevent views to the river channels, rendering them relatively inconspicuous within the wider landscape.

Despite the embankments, the Ancholme and the Witham have inadequate flood defences. The extensive floods of April 1981 and, to a lesser extent, those in October 1993, have been the catalyst for action and there are proposals for two flood storage reservoirs at Market Rasen. The proposed reservoir near Willingham Woods would be a below-ground reservoir, which would be likely to have little visual impact, but the proposed reservoir near the golf course would be retained by a 3m embankment across the natural valley. Both reservoirs would normally be relatively dry, but are designed to prevent flood damage to the town during storm events.

Studies are underway to assess the need for flood alleviation works along the River Ancholme and the Witham. The proposals could range from improvements to the river embankments, to large flood storage reservoirs. The rivers already have a relatively engineered appearance and there may be scope for future flood alleviation schemes to incorporate meadows and washlands, re-creating some of the wetland habitats associated with the river corridor and introducing a wider diversity of landscape elements within a relatively homogeneous agricultural landscape.

There are no immediate proposals for flood alleviation schemes along the Trent in West Lindsey, where it is enclosed by steep embankments. There could only be opportunities to create new washlands if the existing embankments were moved and the Environment Agency does not anticipate this degree of change in the near future.

On a smaller scale, there has been a proliferation of small embanked farm reservoirs in the broad valleys of the Trent, the Till, the Ancholme and the Witham. These may be conspicuous when they are sited in open, flat arable landscapes. Careful siting and design is required to ensure they are integrated with surrounding landscape patterns.

3.3.5 *Broad Landscape Guidance for the Assessment and Design of Infrastructure Developments*

Volume 10 of the *Design Manual for Roads and Bridges* ⁽¹⁾ provides guidance on the environmental design of landform and alignment of new roads. The Countryside Commission has also produced some useful literature on roads in the countryside.

The Environment Agency has strict guidelines on the design and implementation of flood alleviation schemes and undertakes environmental assessments and extensive consultation for all significant schemes.

Broad Landscape Guidance for Infrastructure Developments

Siting and Design

- Avoid developing infrastructure in remote areas with a wild character
- Align routes of roads and pipelines to follow contours and minimise disruption to local landforms
- As far as possible, keep routes to lower elevations and follow natural breaks of slope; avoid straight alignments at angles to the natural grain of the land
- Avoid creating straight, geometric cuts for transmission lines through commercial forests; soften woodland edges along such corridors and design plantations to form a backdrop to power lines where they appear on the local skyline
- Consider under-grounding transmission lines for short distances to avoid breaking the skyline in sensitive locations
- Give special consideration to infrastructure developments on small islands or narrow peninsulas where they may be prominent on the skyline in local views.
- The use of existing structures to support mobile phone aerials and the practice of amalgamating several transmitters onto one mast minimises the need for visually intrusive structures.

Local Landscape Design

- Design new planting as an integral part of the infrastructure development, aiming to reinforce local landscape character and create a seamless 'fit' with the surrounding landscape
 - West Lindsey's many historic enclosure roads should be a priority for conservation - verges should be kept mown (those with calcareous grassland require specific mowing regimes) and free of planting; new tree planting of native species should be confined to the enclosing hedgerows, where it should be designed to integrate with the existing patterns of hedgerow and woodland trees. Inappropriate planting of all non-native species (particularly daffodils) should also be discouraged.
 - New (above ground) farm reservoirs require careful siting and design - earthworks should be indented and softened to reflect the grain of the local topography and new planting should be designed to integrate with surrounding landscape patterns.
 - New planting should emphasise areas of broadleaved woodland; avoid creating a linear
-

(1) Department of Transport et al. 1993, *Design Manual for Roads and Bridges*, Volume 10, Environmental Design, HMSO

-
- 'corridor' of planting which would draw attention to infrastructure developments.
 - Design embankments related to roads or flood defence schemes to 'flow' with the surrounding contours, minimising abrupt angles at breaks of slope and using new planting to help integrate the proposals with local landscape patterns.
 - Give special consideration to the design of local landscape associated with roads at the entrance to settlements, using traditional stone walls, hedgerows and tree planting to enhance the 'gateway' effect.
 - Use local materials characteristic of the area, is local stone for stone dykes and native species for new planting.
-

3.4

MINERAL EXTRACTION

West Lindsey has valuable resources of aggregate minerals – sand and gravel, limestone and chalk. In the past, local ironstone deposits on the Wolds escarpment have also been worked, but this has long ceased to be commercially viable. There is also active oil exploration in the southern part of the district where 'nodding donkeys' are a regular local landscape feature.

There are no longer any active limestone quarries in the district, and two active chalk quarries, on the outskirts of Caistor and at Bigby. Other disused chalk pits and quarries are found on the Wolds near Caistor, at Grasby and near Swallow. They are prominent in some views of the chalk escarpment. Sand and gravel is found in the coversands areas to the north west of the district and in the Caistor area. There are workings in both. Many disused gravel pits provide excellent wildlife habitats and restoration has created some valuable wetland near Caistor and Nettleton.

Demand for sand and gravel is relatively stable, although less is likely to be required for the development of new roads in the near future. Production of chalk is also set to continue at current rates.

The *Lincolnshire Minerals Local Plan* ⁽¹⁾ sets out the County Council's policy framework for the development of mineral extraction within West Lindsey, including policies for mitigating the environmental impact of all operations.

(1) *Lincolnshire Minerals Local Plan*, Lincolnshire County Council, 1991

- There may be opportunities for screening quarries, particularly if they are a relatively small scale and in sheltered locations.
 - The value of disused quarries for nature conservation and as ecological education resources should be a consideration.
 - Large-scale quarries can have an immense landscape impact; locations which are relatively hidden from principal viewpoints (from public roads and from local communities) may help reduce this to some extent.
 - Phased restoration of active workings and, where possible, restoration of expired mineral workings, will lessen or obviate long term impacts and may result in some visual improvements.
 - Monitoring, frequent clearance and the wider provision of local landfill sites may help to reduce the problem of fly-tipping.
-

3.5

AGRICULTURE

Future changes in agricultural subsidies and trends towards a stewardship-led approach to farming may bring benefits for biodiversity and landscape character alike. West Lindsey has a high proportion of arable land and in recent years, the agricultural subsidies of the Common Agricultural Policy (CAP) have been the most significant controlling influence on agricultural change. Subsidies for arable production have encouraged the amalgamation of landholdings and the removal of hedgerows, trees and farm woodlands. There has also been an increase in the number and scale of modern farm buildings, most of which are prominent in the expansive, open arable farmland.

In the Wolds there is a more mixed pattern of farming, with a higher proportion of grassland than in the rest of the district. However, there has been a trend towards the amalgamation of landholdings here too, with the larger estates and farms buying up land from smaller tenant farmers. The statistics provide a striking example of agricultural change: between 1984 and 1992, the number of agricultural employees in the Wolds AONB has halved. The recent BSE crisis has further reduced the viability of cattle production, although the tradition of sheep farming on the Wolds continues, in a relatively extensive form.

Countryside Stewardship has had a positive impact on the restoration and conservation of grassland landscapes, particularly on the prominent escarpment slopes. This voluntary scheme provides farmers with a grant towards the management of key landscape elements, including hedgerows, stone walls, important grassland habitats, meadows and wetlands. However, there has recently been some dissatisfaction with the targeted nature of the scheme and with its associated bureaucracy. The grants programme as a whole is in a state of flux as the outcome of CAP reforms are, as yet, unclear.

However, future grant schemes are certain to build on the environmental awareness of Countryside Stewardship. For instance, there may be scope to develop an EC funded grassland restoration scheme in the Wolds and the new Lincolnshire Grasslands Project will also encourage the conservation and restoration of grasslands. The latter is designed to tackle the issue on a broad basis and includes funding for the restoration of farm buildings which can be used for stock, storage or fodder and for the conservation of ridge and furrow.

The availability of agri-environment grants is the principal influence on agricultural change in West Lindsey. The recent phase of hedgerow and hedgerow tree planting is the result of Countryside Stewardship funding (in the Wolds) and the availability of grants from both West Lindsey district and Lincolnshire County Council. Tree planting does not always have a positive impact - there are many examples of inappropriate planting of ornamental rather than native species, and of tree planting within the wide verges of the historic enclosure roads. Currently, the greatest threat to hedgerows is neglect or inappropriate management.

3.5.1 *Broad Landscape Guidance for Agriculture*

The Farming and Wildlife Advisory Group (FWAG) provides leaflets and practical advice to farmers on sustainable agricultural practices and techniques for conservation. Further advice is available from the Countryside Agency, West Lindsey District Council, the County Council and the Wolds AONB Officer.

Broad Landscape Guidance for Agriculture

- Contrasting land management systems maintain a diverse landscape character, recognition and encouragement of traditional practices will help to maintain the distinction between upland and lowland areas.
- Retention of unimproved pastures, encouragement of conversion of semi-improved or improved land to wildlife-rich grasslands and management of herb-rich meadows and wetlands will add diversity to the lowland agricultural landscape.
- Farm and forestry tracks can be visually intrusive on a hillside; routing along screened alignments or along natural contours will help to ameliorate impact.
- Management to maintain or re-establish, where appropriate, a strong field pattern of stone walls or hedgerows will enhance the overall structure of the landscape and reduce its vulnerability to change.
- Modern agriculture can be particularly disruptive to the natural historical and archaeological heritage; education, information and incentives can help to reduce this impact.
- Overgrazing and/or the wrong type of grazing leads to loss of diversity and encroachment by bracken; appropriate sheep, deer and cattle numbers will encourage a more diverse landcover.
- Enclosure of pockets within farmland encourages woodland growth and adds diversity to the farmed landscape.

-
- The clutter associated with small-holdings can detract from local landscape quality; 'good housekeeping' such as maintenance of out-buildings, removal of scrap and debris and repair of fences helps to maintain and enhance the landscape.
-

3.6

WATER QUALITY

The quality of the aquatic environment, and its future management, is central to the long-term viability of West Lindsey's natural resources. Not only are the river systems of high amenity and recreational value, the purity of water supplies and the disposal of effluent are essential to public health and a high proportion of plant and animal life depends on the conservation of the aquatic environment.

Water courses are subject to a particularly wide range of uses and issues and policies relating to water quality management inevitably overlap with a number of different forces for change. For instance, water catchments are affected by trends in built development and infrastructure, agriculture, tourism and flood control. It is therefore essential that they are managed in an integrated way, through the preparation and subsequent implementation of Catchment Management Plans which balance the requirements of all the different land uses involved. This work is co-ordinated by the Environment Agency.

The recent *Grimsby Ancholme Draft Local Environment Agency Plan (LEAP)* and the *Local Environment Agency Plan for the River Witham* ⁽¹⁾ highlight the decline in the chemical quality of both rivers due to excessive nutrient enrichment. This eutrophication may cause severe diurnal swings in the dissolved oxygen content of the water and can be a significant source of stress for invertebrate and fish life. In addition to the detrimental effects of eutrophication, the quality of the aquatic environment is also affected by built development and infrastructure. Run-off from hard surfaces is often polluted and new standards apply to the construction of major infrastructure projects to ensure that they comply. Minor water courses are most at risk from poor design standards in developments and they are frequently ignored, culverted or polluted by run-off instead of being treated as a central focus for a scheme.

3.6.1

Broad Guidance for Water Quality Management

Water quality management demands an integrated approach, involving minimising the risk of pollution spills, reducing the influence and potential for diffuse pollution in the form of run-off from agricultural land or built development and the management of the river corridor landscape itself.

(1) *Local Environment Agency Plan, Upper Witham (Consultation Report)* Environment Agency, September 1996

The EC Nitrates Directive requires compulsory controls where levels exceed or are at risk of exceeding the 50mg/litre standard. The Upper Ancholme catchment has been designated a Nitrate Vulnerable Zone. Through this designation farmers are made aware of the need to limit nitrate applications. In 1997, the River Witham was designated a *Candidate Eutrophic Sensitive Area*, requiring ongoing monitoring and review of eutrophication levels.

Broad Landscape Guidance for Water Quality Management

- River corridors make a strong, positive contribution to landscape character and are extremely valuable in ecological terms. Every opportunity should be taken to enhance watercourses, including those associated with new development proposals.
 - There is a risk that new development will reduce the conservation value and scenic quality of watercourses, particularly minor streams; new developments should be designed to benefit from the visual focus and amenity value which water provides.
 - The widespread use of the *Code of Good Agricultural Practice for Protection of Water* will help to reduce nutrient loads on water courses and the introduction of farm waste storage management plans will reduce the risk of pollution incidents from silage and slurry storage facilities.
 - The provision of buffer strips adjacent to water courses is considered to be good practice by the Environment Agency. It may help to intercept diffuse pollution and will enhance the ecological and landscape value of the river; however their effectiveness will depend on local soil types and rates of infiltration.
-

3.7

FORESTRY AND WOODLANDS

West Lindsey is a predominantly farmed landscape, but there are extensive woodlands on the coversands in the north west of the district and in the Market Rasen area, and on the heavy clays in the southern part of the Lincolnshire Clay Vale. Elsewhere, there are scattered small farm woodlands and some significant wooded estates.

Recent trends towards new planting, woodland conservation and improved woodland management are gradually increasing the overall proportion of trees in the West Lindsey landscape. The changes are fuelled by grant schemes such as the Woodland Grant Scheme (WGS) and the availability of EC funds. They also reflect a growing appreciation of the inherent value of trees and woodlands as a scenic, recreational and ecological resource.

3.7.1

Laughton Woods

The extensive conifer plantations near the villages of Blyton, Scotton and Laughton are on the acidic, sandy soils of the glacial coversands in the north western corner of the district. The landscape in this area has been undergoing a period of rapid change as the woodland has been substantially felled over the past 5 years. This is one of the most important heathland habitats in Lincolnshire and the woodlands are actively managed to conserve and enhance their ecological value, as well as for commercial forestry.

Approximately 10% of the plantation is now open heathland and new planting has been designed to include a mixture of conifers and native deciduous species. In time, the woodlands will take on a softer, more indented profile.

This area is valued for its wet heathland, a rare habitat in Lincolnshire. The nature reserve at Scotton Common is particularly important in this respect and Forest Enterprise has worked in conjunction with the Lincolnshire Trust to increase the area of heathland and reduce the impact of the forest on the local water table.

3.7.2 *Willingham Woods*

The other area of extensive forestry is on the coversands at the foot of the Wolds escarpment, near Market Rasen. Here the forest is even-aged and relatively immature and a major programme of felling and restructuring is now underway. Visitor access is a key issue here as the majority of the woodlands are in public ownership. There are also some important stream corridors within the woodlands. The Forestry Commission's *Design Plan* allows for both interests, with a combination of continuous cover (which does not imply large-scale felling) and riparian zone management, allowing open glades and 50% dappled shade near watercourses.

3.7.3 *The Lincolnshire Limewoods*

The heavy clay soils to the south east of the Lincolnshire Clay Vale have long proved to be difficult for agriculture and the area has the most important examples of small leaved lime woodland remaining in the country. The Lincolnshire Lime Woods are believed to have been under continuous woodland cover for thousands of years and the area was declared a National Nature Reserve in 1997.

The woodlands are concentrated on the summits of the low hills in this part of the Vale. Periods of poor management in the past have led to their fragmentation, partial felling and some replanting with conifers. Current *Management Plans* are designed to remove the conifers, create links between woodlands, encourage habitat restoration (for woodland, woodland edge and meadow species) and manage visitor access. A detailed review of the history of the woodlands and the potential ecological value of earlier woodland sites is being used to draw up a list of sites which would be a priority for acquisition. The Forest Enterprise has produced a detailed *Design Plan* for the woodlands which aims to co-ordinate the inputs of the many different groups with an interest in the woodlands, including English Nature, the Lincolnshire Trust and the British Butterfly Conservation Society. The National Nature Reserve status of these woodlands ensures that they will be conserved and enhanced for the foreseeable future, with carefully controlled public access (at present concentrated at Chambers Farm Wood) and the management of coppice, glades, rides and the pastures and hedgerows which surround and link the woodlands, as well as the woodlands themselves.

Small farm and estate woodlands are a crucially important part of the West Lindsey landscape. They provide shelter and enclosure and contribute to the distinctive landscape patterns which characterise different parts of the district. For instance, the mixed woodlands on the fringes of Gainsborough provide a robust landscape setting for the town, while the isolated geometric blocks of woodland in the Till Vale provide a focus and a frame for views in an expansive, open arable landscape. The woodlands at the foot of the Lincolnshire Cliff give visual definition to the slope and emphasise the strong contrast between the distinctive landscape of the escarpment and that of the surrounding open farmland. Further east, the combination of hedgerow trees and small farm woodlands in the Lincolnshire Clay Vale provides a subtle backdrop and contributes to the attractive 'layered' views which typify this rural farmland landscape. In the Wolds, woodlands again help to emphasise and define the rolling chalk topography, lending particular emphasis to the striking landforms of the dip-slope valley systems.

The importance of these woodlands is increasingly recognised, by the public, government organisations, interest groups and private landowners alike. The trend towards new planting and increased management has been encouraged by the availability of grants through the Woodland Grant Scheme and, most recently, through EC funding for 5b Areas (broadly relevant for the southern half of the district).

The Woodland Grant Scheme activity has been concentrated on shelterbelts and farm woodlands which are close to farm buildings. Some of these woodlands are valued as game coverts. The 5b Area funding is available to encourage the management of existing woodlands. It includes funding for training and has influenced some of the larger estates in their commitment to take on new woodsmen. The Brocklesby Estate, in the north east Wolds, has pioneered the development and management of mixed plantations for commercial, shelter, game and amenity use.

However, the smaller woodlands and coverts continue to suffer from neglect and lack of management and their survival is largely dependant on the attitude of the landowner. Much of West Lindsey falls within the catchment for the new biofuel power plant at Selby (which opens in November 1999) and there is likely to be an increase in the planting of short rotation coppice. Planting is already evident in areas close to Brattleby, Laughton and Market Rasen, where the coppice is developing in 5 ha blocks on flat areas of land. This will have a short-term impact on the landscape as the crop will be harvested every three years.

A community woodland is planned at the Lincolnshire showground next to the Scampton airbase and there may also be scope to develop some community woods (with improved public access) on the fringes of Gainsborough. In time, the development of some of the district's redundant air bases may well involve substantial woodland planting, which may be prominent on the exposed slopes of the limestone dip slope.

Numerous texts, most notably the Forestry Commission's Guidelines, comprehensively cover the issue of good woodland design and management. They include *Lowland Landscape Design* ⁽¹⁾, *Forest Landscape Design* ⁽²⁾, *Forests and Water Guidelines* ⁽³⁾, *Creating New Native Woodlands* ⁽⁴⁾ and *Sustainable Forestry* ⁽⁵⁾

The following broad landscape guidelines identify ways in which forestry can make a positive contribution to landscape character while conserving important and distinctive visual relationships, landscape features, areas of semi-natural and ancient woodland and other sites of nature conservation or archaeological importance.

Broad Landscape Guidance for Forestry and Woodland

- A diverse mix of species (appropriate to the site), including broadleaf woodlands, adds visual interest and reflects more natural woodland patterns; however in a very simple landscape type a woodland with a more limited range of species may be accommodated more readily.
 - Irregularly shaped felling coupes appear more natural in the landscape, but woodland shapes should reflect those of the natural landform.
 - Recognising and responding to the relationship between woodlands and open space is fundamental to enhancing landscape character.
 - Woodland should be of a scale that reflects and integrates with both landform and land use.
 - Conservation, restoration and management of semi-natural woodlands will maintain the diversity of landscape features; estate woodlands, including ornamental species, make an important contribution to local landscape character.
-

TOURISM AND RECREATION

Tourism in West Lindsey is promoted through the Tourism and Arts Division of the District Council and the county-wide organisation, Lincolnshire Tourism.

There is, as yet, no firm statistical data on visitor numbers, but the majority of people come to West Lindsey to visit friends and relatives and for short breaks. Many come for day-trips. The district has relatively few tourist 'attractions', but has a wealth of landscape, architectural and heritage interest, which is a catalyst for cyclists, walkers, boating enthusiasts and visitors who

(1) *Lowland Landscape Design Guidelines*, The Forestry Authority, 1992, HMSO

(2) *Forest Landscape Design Guidelines*, The Forestry Authority and the Forestry Commission, 1994, HMSO

(3) *Forests and Water Guidelines*, Forestry Commission, 1991, HMSO.

(4) *Creating New Native Woodlands*, Forestry Commission, Bulletin 112, 1994

(5) *Sustainable Forestry - The UK Programme*, Forestry Commission, 1994

simply enjoy scenic drives and exploring historic churches. West Lindsey is on the fringe of one of the country's most important historic cities; it has a range of scenic landscapes, including the dramatic chalk escarpment and uplands of the Wolds Area of Outstanding Natural Beauty, the gentle verdant farmland of the Lincolnshire Clay Vale and the northern spine of the Lincolnshire Cliff. It also has numerous attractive settlements, with historic buildings, parish churches and a wealth of archaeological interest, as well as a popular network of waterways. The district's many redundant air bases have a special draw for retired airmen and those with an interest in aviation history.

The district's principal tourist attractions are:

- *The Antiques Centre at Hemswell Cliff* - a major attraction and the largest centre in Europe. It is open 7 days a week and is the centre of operations for 280 dealers.
- *Rand Farm Park* - a popular animal farm park
- *Gainsborough Old Hall*
- *Stow Minster*
- *Bransby Home of Rest for Horses* - an equestrian rescue centre
- *The Market Rasen Races*
- *The Lincolnshire Show*

The District Council actively encourages the development of tourism and recreational activities which complement the inherent character and culture of the district, recognising that 'soft tourism', in the form of walking, cycling, boating and short-breaks is a key aspect of the strategy. The Viking Way, a popular long distance footpath crosses the district and is particularly well-used in the Wolds. Recent tourist projects have included the development of the Sustrans route from Hull to Harwich, which runs through the district and of several local feeder cycle routes. There are also new cycle routes in the district's three principal woodlands, Laughton Woods, Willingham Woods and Chambers Farm Wood.

The development of the new marina at Burton Waters and improvements to the waterfront in Gainsborough will provide new moorings and are likely to encourage increased boating activity on the Trent, as well as the ever popular Fossedyke waterway.

- Frequent viewing points and small car parks (with advanced signs) along roads will provide more opportunities for visitors to experience the landscape, reduce congestion and encourage people to leave their cars.
 - Development and management of footpaths for short distance (2-3 mile) walks will open up local areas of landscape to a large number of people.
 - The use of local materials for buildings and infrastructure developments associated with tourism will help to ensure that they are well-integrated with the surrounding landscape and reflect a strong sense of local identity.
 - The nostalgic value of the airbases and their importance to aviation heritage should be recognised and retained in plans for their future re-development.
 - The 'nodes' of West Lindsey's waterways (bridges and crossing points) provide important opportunities for views and for appreciating the wider landscape context as many of the waterways are enclosed by steep embankments. They should be a priority for tourist activity and enhancement programmes.
 - Allocation and enforcement of specific mountain bike routes will help to reduce erosion on other tracks and footpaths.
 - In naturally wooded landscapes, appropriate planting around caravan parks will help reduce their landscape impact while retaining outward views; in more open landscapes, landform screening may be more appropriate. Control of the scale of caravan parks will also help to limit visual impact.
 - Waterside and marina developments can be used to enhance and invigorate poor quality urban waterfronts.
-

4.1

A STRATEGIC APPROACH

The Landscape Assessment highlights the value of landscape diversity and of recognising and reinforcing contrasts in landscape character. It covers *all* the landscapes within West Lindsey, not just those which are widely recognised for their scenic, nature conservation or heritage value, and places particular emphasis on those landscapes which provide the setting to local towns and villages.

The countryside is a dynamic resource; patterns of land use and landscape character have evolved over hundreds of years of cultivation, land management and settlement. The landscape assessment identifies the key forces for change which are currently most influential and provides guidance to help accommodate change in a positive way. However, it also indicates those landscapes which are particularly sensitive to change and highlights the need to consider the capacity of the landscape to accommodate development, new activities and changes of use without loss of local character and identity.

Nevertheless, there is also a strong emphasis on the potential for enhancement and on finding opportunities to improve landscape character through the design and management of new and existing landscapes, including those which are recognised and protected for their landscape, heritage or wildlife interest.

In recent years, the increasingly standardised approach to development has led to the homogenisation of both urban and rural landscapes. The landscape assessment is intended to build an understanding of the striking variations in landscape character across West Lindsey and to describe how the design of new buildings and the management of the countryside resource can help to conserve landscape diversity and (in many instances) bolster its capacity to accommodate further development. This requires a proactive approach. Areas under pressure for development have a particular need for strong design to counteract the tendency for homogenisation and to ensure that development always reinforces local landscape quality and diversity.

Encouraging high quality design must therefore be a priority. This implies providing clearer guidance and advice to planners and developers on the siting, design and layout of developments in different settlements and landscape types. It also implies a more integrated and locally-based approach to design and planning in which opportunities for conservation, environmental enhancement and landscape management are considered in parallel with opportunities for development.

4.1.1

A Baseline for Monitoring Future Landscape Change

The landscape assessment provides a detailed survey of landscape character and condition. It is one of several surveys which can be used as a baseline against which future landscape change can be monitored. Other possible resources for monitoring change in West Lindsey include the *Lincolnshire State of the Environment Report* ⁽¹⁾ and the *Lincolnshire Phase 1 Habitat Survey*, a habitat and land use survey based on aerial photographs which provides simplified but useful baseline information.

Suggested indicators for monitoring landscape change in each of the district's 14 landscape character areas are shown in *Table 4.1* below.

Table 4.1 *Possible Baseline Indicators for Monitoring Landscape Change*

LCA	Possible Indicators
1. Laughton Woods	<ul style="list-style-type: none"> • Area of heathland within LCA • Proportion of conifer : broadleaf woodland • Number of individual field boundary oak/ash trees per 200m boundary • Retained clear views to village churches
2. Trent Valley	<ul style="list-style-type: none"> • Loss of hedgerows (measured in metres) • Average number of hedgerow trees per 100m hedge • Proportion of conifer : broadleaf woodland • Area of woodland • Area of semi-natural woodland (using indicator species for semi-natural ancient woodland)
3. Till Vale	<ul style="list-style-type: none"> • Area of woodland • Proportion of woodland : woodland edge species • Length of hedgerows within LCA • Length of historic enclosure roads (wide verges + hedgerows). • Number of new farm buildings
4. Lincolnshire Cliff	<ul style="list-style-type: none"> • Proportion of pasture : arable fields • Area of broadleaf woodland • Quality of water in ponds at foot of scarp • Area of village greens and number of mature trees associated with public open space within villages.

(1) Lincolnshire State of the Environment Report, 1995, Lincolnshire County Council

LCA	Possible Indicators
5. Limestone Dip Slope	<ul style="list-style-type: none"> Length of hedgerows lost Average number of hedgerow trees per 200m hedgerow Length of historic enclosure roads (wide verges and hedgerows) Water flow within dip-slope streams Area of limestone grassland on the roadside verges and in minor dry valleys Length of limestone walls Number of redundant air base buildings
6. Lincoln Fringe	<ul style="list-style-type: none"> Area of village greens and number of mature trees associated with public open space within villages. Length of hedgerows lost Average number of hedgerow trees per 200m. Area of pasture
7. Fenland	<ul style="list-style-type: none"> Average number of field boundary trees per 400m Length of watercourses with established riparian vegetation Number of large agricultural buildings.
8. Lincolnshire Limewoods	<ul style="list-style-type: none"> Area of ancient woodland and number of rare indicator species - monitor in line with <i>Design Plan</i> Proportion of conifer : broadleaf woodland Proportion of pasture : arable fields Number of derelict farm buildings Average number of hedgerow trees per 100m
9. Lincolnshire Clay Vale	<ul style="list-style-type: none"> Length of hedgerows lost Average number of hedgerow trees per 200m. Area of pasture Length of watercourses with established riparian vegetation Length of enclosure roads (wide verges + hedgerows) Number of derelict farm buildings
10. The Kelseys	<ul style="list-style-type: none"> Area of pasture Number of hedgerow trees per 200m Length and condition of mature avenues Length of ancient hedgerows Area of acidic grassland
11. Heathland Belt	<ul style="list-style-type: none"> Proportion of conifer : broadleaf woodland Area of pasture Number of hedgerow trees per 200m Length and condition of mature avenues Length of ancient hedgerows Area of heathland
12. N W Wolds Escarpment	<ul style="list-style-type: none"> Area of chalk grassland Proportion of arable : pasture Number of mature beech and Scots pine in summit clumps Length of hedgerows.

LCA	Possible Indicators
13 Lincolnshire Wolds	<ul style="list-style-type: none"> • Area of chalk grassland • Proportion of arable : pasture • Proportion of conifer : broadleaf woodland • Number of hedgerow trees per 200m • Number of redundant air base buildings • Length of historic enclosure roads
14 Wolds' Estates	<ul style="list-style-type: none"> • Area of chalk grassland • Proportion of arable : pasture • Proportion of conifer : broadleaf woodland • Number of hedgerow trees per 200m

4.1.2 *Using the Landscape Assessment*

The landscape assessment is designed for use by everyone involved in the planning and management of landscapes. It provides a common point of reference and will encourage inter-agency co-operation. It may also be used as an educational tool for promoting landscape and conservation issues.

In practice, the assessment is most likely to be used by local authorities, government departments and agencies, voluntary conservation organisations, developers and consultants (landscape architects, architects, urban designers, ecologists, planners, foresters, recreation and tourism specialists etc) from the private sector. It may also be used by local community groups and schools. In addition, researchers from a range of different academic fields would benefit from the systematic approach adopted by the assessment, and from the availability of a baseline description of the landscape at a point in time.

Landscape issues relate to a complex web of forces for change. One development pressure will often directly or indirectly affect others and their impacts will be unevenly distributed. It is therefore crucial to adopt an integrated approach - to the broad issues of land use and landscape management, and to the specific issues relating to the siting and design of new development. The landscape assessment provides a common framework for this integrated approach, establishing principles to guide the decision-making process at a range of different scales, from landscape management strategies (eg for a country park) to design briefs for individual development sites.

At a strategic level, the key issues affecting West Lindsey's landscapes can be summarised as:

- *The loss of distinctive landscape settings to settlements*
- *The erosion of distinctive rural landscape patterns and features*
- *The impact of agricultural buildings in the rural landscape*
- *The future of West Lindsey's redundant air bases*
- *The decline of natural habitats*
- *Damage to the landscape setting of historic and archaeological features.*

West Lindsey has a relatively dispersed settlement pattern, with numerous small villages and hamlets. There is a strong relationship between landscape character and settlement; many villages are sited on springlines or on slightly elevated land, so that there are distinct 'lines' of settlement which reflect the local topography.

Most settlements derive their sense of place and identity from distinctive views, local landmarks or landscape features. However, recent expansion has often ignored these distinctive landscape settings, resulting in settlements which are fringed by housing estates and approached through a ribbon of suburbia. Large housing estates on the fringes of settlements tend to cut villages and towns off from their landscape setting, blocking local views and footpaths and destroying the often subtle relationship between local field patterns and the pattern of streets and buildings. The expanded villages which are within commuting distance of Lincoln are particularly affected, but the issue is relevant throughout the district.

Priorities for Action

- *Incorporate the Landscape Assessment into the Local Plan, as it is reviewed, and into site-specific Development Briefs to ensure that development proposals respect distinctive landscape settings and form a positive relationship with the surrounding landscape. When adapted as Supplementary Planning Guidance, the Countryside Design Summary will also help to promote high quality design and an appreciation of the importance of landscape setting.*
- *Recognise the landscape settings of towns and villages and avoid a standardised approach - for instance the implementation of broad landscape belts around new development which could obscure views and detract from the local relationship between settlements and their landscape context.*

- *Ensure new development is associated with schemes for landscape enhancement, particularly at key locations, such as entrances along principal approach roads and local settlement edges, where recent development may have been detrimental to the landscape setting.*

4.3

THE EROSION OF DISTINCTIVE RURAL LANDSCAPE PATTERNS AND FEATURES

The landscape assessment defines and describes important variations in landscape character and landscape diversity across West Lindsey. The assessment identifies the distinctive rural landscape patterns and features which contribute to scenic quality at both local and regional scales; prominent examples, such as the pattern of fields and woodlands on the slopes of the Wolds' escarpment, are of regional importance, but more subtle variations in landscape pattern also merit recognition and conservation. Examples are the contrast in enclosure and field pattern between the rolling, relatively wooded farmland on the fringes of Gainsborough and the expansive arable fields of the *Till Vale* or between the small-scale, contoured field pattern typical of the chalk valleys and the broader, rolling field pattern of the 'tops'. Even relatively nondescript elements, such as the tall hedgerow ash trees, found throughout the district and often seen in isolation against the sky, make a crucial contribution to local landscape character.

Distinctive rural landscape patterns and features are uniquely site specific as they are directly related to variations in the underlying bedrock and to physiographic features. Most have evolved over the years from traditional patterns of farming, forestry and settlement, which have in turn been influenced by physical landscape factors.

Since most of the region's distinctive landscape patterns and features are historic remnants, they are particularly vulnerable to landscape change resulting from development, land management practices or simply neglect. The landscape assessment provides ample visual evidence of the ongoing erosion of distinctive landscape patterns and features. It is occurring in a piecemeal way, but the effects are cumulative. Each of the Landscape Character Area descriptions includes sections on *Landscape Sensitivity*, which highlight the most sensitive parts of the landscape, and *Principles for Landscape Management*, which provide guidance on how to tackle the problem in different types of landscape. In general terms, landscapes which are described as sensitive are particularly vulnerable to the erosion of distinctive landscape patterns and features.

Priorities for Action

- *Recognise the importance of conserving distinctive landscape features and patterns throughout West Lindsey by incorporating the landscape assessment and its recommendations into the Local Plan and making particular reference to the conservation of those parts of the landscape which are identified as 'sensitive' (such as skylines, river corridors, pastures etc.).*

- *Develop landscape management action plans to ensure the conservation and enhancement of key landscape features (such as the 'Cliff' escarpment slopes) rather than site-specific protected areas which only form part of the overall composition.*
- *Establish a programme for monitoring the extent of key landscape features such as hedgerows and hedgerow trees, together with a scheme for their ongoing management and replacement, taking account of the landscape patterns which typify the different landscape character areas.*
- *Adopt an integrated approach to landscape issues, liaising closely with organisations such as the Lincolnshire Trust, the Environment Agency, English Nature and the Forest Enterprise.*
- *Review the relevance of the designated Areas of Great Landscape Value in the light of the landscape assessment, which adopts the premise that all landscapes are important and that policies should focus on promoting landscape diversity and distinctive landscape character.*

4.4

THE IMPACT OF AGRICULTURAL BUILDINGS IN THE RURAL LANDSCAPE

Taken as a whole, West Lindsey has a relatively expansive landscape characterised by long views and big skies. The *Till Vale*, *Fenland* and *Lincolnshire Clay Vale* landscapes are particularly open, with a large scale pattern of fields and prominent, dispersed groups of farm buildings. As agriculture has become increasingly intensified, the buildings required for storing produce and machinery and the specific structures designed for intensive poultry rearing have become dominant landscape elements. They are often silhouetted against the skyline. Many are associated with stands of conifers which create a harsh, blocky outline and often serve to draw attention to the structures.

Traditional farm buildings are often redundant and most are derelict or only partially used. While a new grant is available to encourage their restoration and use as agricultural buildings for livestock farming, there is also ongoing pressure to convert isolated barns and other farm buildings for residential use. This raises some difficult issues; conversion requires sensitive design to ensure that windows, chimneys and doors do not detract from the distinctive agricultural character of the buildings. Access roads, electricity cables, garden fencing and ornamental planting can all be intrusive in a predominantly agricultural setting. On the other hand, such conversion may offer a way to conserve historic buildings which are significant landscape features in their own right. Inevitably each case must be taken in context. Conversion may be inappropriate in some of the district's most sensitive landscapes, while in others it may represent a realistic way forward. In each case the immediate landscape setting of the farm buildings and views from surrounding routes and footpaths must be taken into account.

Priorities for Action

- *Publish guidelines for the siting and design of large agricultural structures which include detailed guidance on tree planting, the use of materials and the relationship of the structures to adjacent buildings.*
- *Adopt a cautious approach to the conversion of agricultural buildings to residential use, taking account of the immediate landscape setting and key views and considering the detailed design of boundaries, planting and access roads, as well as the architectural design of the building itself.*

4.5

THE FUTURE OF WEST LINDSEY'S REDUNDANT AIR BASES

West Lindsey's many redundant air bases have a strong and generally negative influence on local landscape character. They are concentrated on the exposed, relatively flat farmland of the *Limestone Dip Slope* (Hemswell Cliff, Scampton) the *Till Vale* (Sturgate, Blyton), the *Lincolnshire Clay Vale* (Faldingworth) and the *Wolds Dip Slope* (Binbrook). Some are virtually intact and partially used for commercial enterprise, but others lie derelict. All have many redundant buildings, acres of concrete and inaccessible fenced-off land. The air bases represent a substantial under-used land resource, which has much economic potential. However, the cost of redeveloping large brownfield sites in this rural location is relatively high and it has proved extremely difficult to find viable new land uses.

The air bases contribute little to the surrounding landscape character and generally have a degrading influence. Many are prominent as they tend to be located on exposed, elevated sites. Their redevelopment would require the restoration of a landscape structure which integrates with the scale and character of the surrounding farmland.

Priorities for Action

- *Ensure that proposals for the re-development of the district's redundant air bases are accompanied by large-scale planting. The planting should be designed to create a new landscape structure for the whole area, which integrates with surrounding field patterns and forms a robust framework for new development.*
- *Where possible, new development should incorporate some local aviation landmarks (control towers, hangers, runway alignments etc) which have become an important part of the history of the site.*

4.6

THE DECLINE OF NATURAL HABITATS

The conservation and management of semi-natural habitats, such as chalk and limestone grassland, ancient woodland, washlands and heathland is vitally

important to maintain and enhance natural biodiversity. West Lindsey has important examples of all such habitats, which are of national significance. However, the district also has a rich matrix of verges, hedgerows, ditches, field margins and copses which, though relatively minor in national terms, are nonetheless of immense cumulative value. Such landscapes also make an important visual contribution to the landscape, but because they are of little direct economic value, they are under constant pressure from all aspects of landscape change and particularly from built development.

There are opportunities to conserve and enhance the matrix of habitats across the district, concentrating on developing links between existing disparate linear elements, such as hedgerows and verges, and creating a richer diversity of natural habitats.

Priorities for Action

- *Indicate all designated sites of nature conservation importance (national and local) in the Local Plan, so that they can be conserved and enhanced through the development control process.*
- *Encourage a practical and proactive approach to the ongoing design and management of all sites of nature conservation importance.*
- *Make use of the Lincolnshire Phase 1 Habitat Survey, a set of plans based on an aerial survey which provides an invaluable baseline record of the district's natural resources.*
- *Wherever possible, build on the educational potential of sites of nature conservation potential, encouraging visitors and informal recreation at sites where small numbers of visitors will not damage the conservation resource.*

4.7

DAMAGE TO THE LANDSCAPE SETTING OF HISTORIC AND ARCHAEOLOGICAL FEATURES

West Lindsey's wealth of historical and archaeological features is a unique and priceless aspect of its landscape heritage; many churches and deserted medieval village sites are also important and well-known landmarks. However, they are threatened by neglect and by ongoing landscape change, particularly in the form of agricultural intensification, infrastructure and built development.

There is a need for careful conservation of the features themselves, and wherever possible, their wider landscape setting. This may most easily be accomplished as part of a careful process of site appraisal and design. The presence of heritage features on a site will often form the basis for a more distinctive design, contributing to local identity and to the conservation and enhancement of landscape character.

Priorities for Action

- *Recognise and promote the importance of the wider landscape setting of historic landscape features, taking account of local views and historic or visual relationships.*
- *Indicate historic landscape features (and their landscape settings) in the Local Plan, so that they can be conserved and enhanced through the development control process.*
- *Encourage a pro-active approach to the ongoing design and management of historic sites and designed landscapes, taking account of relevant historic research and precedents, but incorporating fresh ideas and techniques wherever appropriate. There is a tendency to allow heritage sites to become 'fossilised' and consequently to suffer from degradation and neglect.*

4.8

A VALUABLE HERITAGE

This landscape assessment is intended to lay the foundation for a common framework for policies and action on the landscape by all concerned. It may be used as a tool for creative conservation and landscape enhancement as well as a basis for seeking opportunities for robust and attractive new development and for providing guidance on siting and design.

West Lindsey's landscapes are a unique and valuable asset. They contribute to the special quality of life of the people who live and work in the region and are likely to be increasingly important in encouraging economic investment in the form of employment and tourism. Yet the landscape represents a vulnerable resource, faced with mounting pressures for change. If left unguided and unchecked these pressures will gradually erode the landscape's special qualities. Action now will enable landscape change to be positive, creative and effective.

GLOSSARY

Analysis - the process of breaking the landscape down, usually in descriptive terms, into its component parts in order to understand how it is made up.

Approach - the step-wise process by which a landscape assessment is undertaken.

Assessment - an umbrella term used to encompass all the many different ways of looking at, describing, analysing and evaluating landscape.

Character - a distinct pattern or combination of elements that occurs consistently in a particular landscape.

Character Area - a geographic area with a consistent character and identity.

Characteristic - an element that contributes to local distinctiveness (eg narrow winding lanes, vernacular building style).

Classification - a process of sorting the landscape into different types, each with a distinct, consistent and recognisable character.

Description - verbal description of what a landscape looks like. This is usually carried out in a systematic manner, but may also include personal reactions to the landscape.

Element - a component part of the landscape (eg hedges, road, woods).

Feature - a prominent, eye-catching element (eg wooded hilltop, church spire).

Landcover - combinations 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 - the term refers primarily to the visual appearance of the land, including its shape, form and colours. However, the landscape is not a purely visual phenomenon; its character relies on a whole range of other dimensions, including geology, topography, soils, ecology, archaeology, landscape history, land use, architecture and cultural associations.

