

NORTH LINCOLNSHIRE LANDSCAPE CHARACTER ASSESSMENT & GUIDELINES

NORTH LINCOLNSHIRE COUNCIL

Date: 13 September 1999

Estell Warren Landscape
Architects
Fortis House
7 Blenheim Terrace
Leeds
LS2 9HZ
Tel:0113 2945720
Fax:0113 2260658

Tony Lyman BSc(Hons), DipTP, MRTPI
Head of & Planning & Regeneration
North Lincolnshire Council
Church Square House
P.O.Box 42
Scunthorpe
North Lincolnshire
DN15 6XQ

Contents

SECTION ONE: BACKGROUND	5
INTRODUCTION	7
Background to this Report	7
Approach and Relationship to Previous Studies	8
Methodology	9
THE LANDSCAPE OF NORTH LINCOLNSHIRE	10
Location and Context	10
General Landscape Character	10
THE CHANGING COUNTRYSIDE	13
Background	13
Landscape Change	13
Pressures on the Landscape	14
Agricultural Practices	16
Urban and Village Growth	17
New Development in the Countryside	18
Road Improvement and Access to the Countryside	18
Tourism and Recreation	19
Forestry, Trees and Woodland	20
Communications, Infrastructure, Power Generation and Transmission	20
Quarrying, Extraction of Aggregates and Landfill	21
Coastal Process and Management	22
Repair and Reinstatement of Derelict Landscape	23
Declining Water Resources	23
Further Decline, Protection and Enhancement of Natural Habitats	23

SECTION TWO: LANDSCAPE ASSESSMENT & GUIDELINES	25
TRENT LEVELS	27
PART 1: LANDSCAPE CHARACTER	27
PART 2: LANDSCAPE STRATEGY AND GUIDELINES	46
LINCOLNSHIRE EDGE	54
PART 1: LANDSCAPE CHARACTER	54
PART 2: LANDSCAPE STRATEGY AND GUIDELINES	73
VALE OF ANCHOLME	81
PART 1: LANDSCAPE CHARACTER	81
PART 2: LANDSCAPE STRATEGY AND GUIDELINES	92
LINCOLNSHIRE WOLDS	96
PART 1: LANDSCAPE CHARACTER	96
PART 2: LANDSCAPE STRATEGY AND GUIDELINES	105
LINCOLNSHIRE DRIFT	108
PART 1: LANDSCAPE CHARACTER	108
PART 2: LANDSCAPE STRATEGY AND GUIDELINES	119
HUMBER ESTUARY	122
PART 1: LANDSCAPE CHARACTER	122
PART 2: LANDSCAPE STRATEGY AND GUIDELINES	141
APPENDIX 1	150
BIBLIOGRAPHY	154

Figure 1: Photographs of Local Landscape Types

Figure 2: Landscape Character Areas And Local Landscape Types

Figure 3: Landscape Management Strategies

Figure 4: Axholme Area Historic Landscape Character Zones

SECTION ONE: **BACKGROUND**

INTRODUCTION

Background to this Report

- 1.1 In February 1999, Estell Warren Landscape Architects were appointed by North Lincolnshire Council to undertake a landscape assessment of the district and preparation of landscape guidelines in support of the emerging North Lincolnshire Local Plan. The assessment formed part of a package of work, which in addition to the Landscape Assessment and Guidelines included preparation of a Countryside Design Summary for the district and advice on landscape policy and designation. The package of work was completed in March 1999 to enable the findings to be included within the Deposit Draft Local Plan. It is intended that the Landscape Assessment and Guidelines and Countryside Design Summary will form the basis of Supplementary Planning Guidance to be used in conjunction with the Local Plan.
- 1.2 North Lincolnshire Council is a Unitary Authority, which came into existence on 1 April 1996. Before local government re-organisation, the area was included within the remit of Humberside County and four District Councils. A landscape assessment for the whole County was commissioned by the County Council, Ryedale District Council, Scarborough Borough Council and the Countryside Commission in 1995, the outcome of which was the publication "Our Landscape, Today for Tomorrow", prepared by Gillespies. This document classified and defined the different landscapes of Humberside, subdividing the County into regional landscape character areas and local landscape types. The brief for the present project included the requirement to repackaging this work in a North Lincolnshire context, extracting from and reviewing the previous document.
- 1.3 The purpose of this assessment project, as set out by the Council, was as follows:
- Using the previous landscape assessment and other relevant work as a starting point, to produce a document assessing the special character, distinctiveness and qualities of the landscape of North Lincolnshire, to include landscape guidelines.*
- 1.4 The Council's objectives for the landscape assessment were:
- i) To understand how and why the landscape of North Lincolnshire has evolved.
 - ii) To classify and describe the landscape character of North Lincolnshire.
 - iii) To identify factors that have influenced landscape change during this century and to indicate forces for, and direction of, change in the future.
 - iv) To provide a baseline for monitoring future change in landscape character.
 - v) To promote an appreciation of landscape issues within North Lincolnshire.
 - vi) To guide and influence those responsible for developing policies for North Lincolnshire.
- 1.5 The purpose of incorporating landscape guidelines was:

North Lincolnshire Council
North Lincolnshire Landscape Character Assessment and Guidelines

To identify priorities for action.

To help in formulating advice and targeting resources such as MAFF’s Countryside Stewardship Scheme.

To act as an aid to the decision-making of landowners, managers and farmers.

Approach and Relationship to Previous Studies

1.6 This assessment has been undertaken against the background of three previous studies:

(1)The Countryside Commission’s Countryside Character Initiative, in particular Volume 3 Yorkshire and the Humber. This document defines the regional landscape character areas, of which six fall partly within North Lincolnshire.

The consultants have utilised the boundaries as set out by this study to define the six North Lincolnshire Landscape Character Areas. The relationship between Countryside Character Initiative Regional Landscape Character Areas and North Lincolnshire Landscape Character Areas is as set out in Figure 1.

Countryside Character Initiative Character Area No.	Countryside Character Initiative Character Area Name	North Lincolnshire Character Area Name
39	Humberhead Levels	Trent Levels
41	Humber Estuary	Humber Estuary
42	Lincolnshire Coast and Marshes	Lincolnshire Drift
43	Lincolnshire Wolds	Lincolnshire Wolds
44	Central Lincolnshire Vale	Vale of Ancholme
45	North Lincolnshire Edge with Coversands	Lincolnshire Edge

Figure 1: Relationship between names used for Countryside Character Initiative’s Regional Landscape Character Areas and names used for North Lincolnshire Landscape Character Areas.

(2)‘**Our Landscape, Today for Tomorrow**’, a landscape assessment covering the area of the former County of Humberside by Gillespies. This study largely followed the Countryside Commission’s regional landscape character areas, although within North Lincolnshire differences between the CCI boundary and Gillespies boundary occurred at the transition between the Lincolnshire Edge and Humber Estuary. The consultants’ own analysis of the landscape concurred with that of the Countryside Commission in this respect.

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

The document 'Our Landscape, Today for Tomorrow' carried out a further subdivision of regional landscape character areas into constituent local landscape types, of which 25 fell within the North Lincolnshire Council boundary. The consultants' approach to the review of these local landscape types has been to undertake a new assessment following the guidelines as set out in CCP 423 Landscape Assessment Guidance. In certain areas boundaries have been modified, refined, or redrawn in the light of more recent studies and the findings of the consultants' own studies and fieldwork, although in many areas the boundaries identified remain consistent with the previous study. The result of this new assessment has been to extend the number of local landscape types identified to 33.

(3) The Isle of Axholme Historic Landscape Characterisation Project by Keith Miller (Report Commissioned by the Countryside Commission September 1997). This project was carried out as a pilot study for the approach of historic landscape character assessment with a view to improving conservation management in the Isle. This project has helped to inform the character assessment and guidelines for the Trent levels. As the historic study has been undertaken in considerable depth, it is recommended that for any work within the Trent Levels the historic study be referred to in addition to the landscape assessment. No such historic studies have been carried out for other parts of North Lincolnshire and as a result the management guidelines proposed respond to visual clues within the landscape but do not have a basis in detailed historic research. Similar historic studies undertaken for other parts of North Lincolnshire would have a benefit in allowing management recommendations to be fine-tuned.

Methodology

- 1.7 The methodology used for this assessment has followed that recommended in CCP 423 Landscape Assessment Guidance, and is detailed in Appendix A.

THE LANDSCAPE OF NORTH LINCOLNSHIRE

Location and Context

- 1.8 North Lincolnshire Council was established as a Unitary Authority on 1st April 1996. The Council comprises the former districts of Scunthorpe, Glanford and the Isle of Axholme part of Boothferry, which were previously part of the County of Humberside. The new North Lincolnshire Council is responsible for local and strategic planning and is the Minerals and Waste Planning Authority, the Highways Authority and the Energy Conservation Authority.
- 1.9 North Lincolnshire has a population of 152,000. The discovery of ironstone in the mid 19th century and the subsequent development of the iron and steel industry resulted in the rapid expansion of Scunthorpe from five small villages into a major urban settlement. The Scunthorpe and Bottesford Urban Area has about 76,500 people and provides the bulk of housing and employment as well as education, leisure facilities and retail services. The settlements of Barton upon Humber and Brigg are also significant, housing a further 15,000 people. The remainder of North Lincolnshire is mainly rural, the larger settlements being Broughton, Crowle, Epworth, Kirton in Lindsey and Winterton. North Lincolnshire covers around 85,000 hectares (328 square miles) almost 89% of which is in some form of agricultural use.
- 1.10 The settlement pattern is closely related to the underlying geology whereby a series of escarpments running north-south across the district (the Lincolnshire Edge, The Lincolnshire Wolds and Drift) are interspersed by the wide, flat river valleys of the Trent and Ancholme and are bounded to the north by the estuarine landscape of the Humber. Settlements tend to be concentrated on the higher land of the escarpments or on the scarp foot springline, or on islands or ridges of higher land with river valleys, such as the Isle of Axholme or the spur of land within the Vale of Ancholme upon which Brigg now stands. Further settlement concentrations and industrial development are found on the southern shores of the Humber and the North Sea coast.

General Landscape Character

- 1.11 The district has a landscape character that is similarly related to its underlying geology. The solid geology of North Lincolnshire is relatively simple consisting almost entirely of Jurassic and Cretaceous rocks that dip regularly eastwards in continuous belts from north to south. The topography presents a correspondingly simple and regular arrangement, the limestone and chalk standing out as the west facing escarpments of the Wolds and the Lincoln Edge, separated by valleys underlain by Jurassic clays.
- 1.12 Much of the solid rock of North Lincolnshire is however overlain by glacial deposits of boulder clays, sands and gravels that add complexity to the overall picture and contribute local variation in landscape character. Extensive deposits of sands and gravels, so called coversands, which derive from Bunter Sandstones further west beyond the Trent, have been blown in an easterly direction across the landscape to build up against the west facing escarpments and the area of Keuper Marl that forms the Isle of Axholme. To the north, the Humber has cut through the Cretaceous and Jurassic rock and has overlain the estuarine landscape with alluvial deposits.
- 1.13 Based on this pattern of underlying solid geology and resulting topography six landscape

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

character areas have been identified within North Lincolnshire as follows:

Trent Levels

Lincolnshire Edge

Vale of Ancholme

Lincolnshire Wolds

Lincolnshire Drift

Humber Estuary

- 1.14 The upland landscape character areas tend to be well defined to the west, where the scarp slopes have a marked influence on landscape character, and more weakly defined to the east, where the gently graded dip slopes merge gradually with valley or estuarine/coastal lowlands.
- 1.15 Each of these character areas has been subdivided into local landscape types as follows:

Trent Levels

Flat Drained Treed Farmland
Flat Drained Farmland
Open Island Farmland
Industrial Landscape
Flat Wooded Farmland
Wooded Springline Farmland
Flat Open Remote Farmland

Lincolnshire Edge

Elevated Open Farmland
Elevated Wooded Farmland
Open Undulating Farmland
Open Farmed Scarp Slope
Farmed Urban Fringe
Heathy Woodland
Wooded Scarp Slope
Steep Wooded Scarp Slope
Industrial Landscape
Despoiled Landscape
Wooded Undulating Farmland

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

Vale of Ancholme *Flat Valley Bottom Farmland*
Heathy Woodland
Open Undulating Farmland

Lincolnshire Wolds *Open Rolling High Farmland*
Wooded Farmed Scarp Slope
Open Farmed Scarp Slope

Lincolnshire Drift *Open Undulating Farmland*
Flat Open Farmland
Wooded Farmland

Humber Estuary *Flat Drained Farmland*
Flat Open Farmland
Waterfilled Clay Pits
Industrial Landscape
Open Undulating Farmland
Wooded Farmland

- 1.16 These local landscape types are tracts of countryside at a more detailed level which have a unity of character due to particular combinations of landform, land cover, drift geology, drainage, settlement pattern, infrastructure development, industrialisation or exploitation of land, agricultural and historic influences. The same landscape type may occur in different landscape character areas but will be distinguished by the broader influences of solid geology, soils and land use history. The same type may also occur more than once within a single landscape character area, in which case such types will have similar characteristics.
- 1.17 As for landscape character areas, these local types are often well defined, but sometimes gradually merge from one into the other, particularly in lower-lying areas. Each of these landscape types is described in detail under the overall character area heading.

THE CHANGING COUNTRYSIDE

Background

- 1.18 The landscape of North Lincolnshire has evolved over many centuries as a result of man's use of the land, the rivers, estuary and seacoast. The inherent diversity of landscape types has been eroded during the 20th century by built development obscuring the landscape and by agricultural improvement that has blurred underlying distinctions between landscape types in a drive for high yields from the soil.
- 1.19 A healthy sustainable landscape, like a human community, is dynamic. Change is inevitable and need not be deleterious. In considering the landscape of the next century, the emphasis must be on the appropriateness of change and the balance between the needs of development and the needs of the environment.
- 1.20 The landscape guidelines proposed for each of the local landscape types will seek to:
- Recognise and strengthen the inherent qualities of each landscape type, and the contribution of the landscape type to the character area as a whole.
 - Recognise the existing value placed on different landscapes, e.g. by the planning system.
 - Recognise the activities likely to bring pressure on the landscape.

Landscape Change

- 1.21 Landscape change can occur in three ways:
- i) **Loss** of features that provide colour, interest, shape and scale, e.g. loss of hedgerows by field enlargement; loss of views; replacement of traditional agricultural buildings by modern 'off the peg' sheds; infill of open space within the rural villages.
 - ii) **Introduction** of new features. Such change is inevitable and can have either a positive, negative or neutral effect on the landscape. Features that might be introduced into the landscape are new housing, transmission lines, quarries, roads, new woodland, etc.
 - iii) **Decline** in quality or state of repair of features of the landscape, e.g. dereliction of the urban fringe; neglect of hedgerows; loss of a smooth rolling topography due to scrub invasion; introduction of standardised suburban styles to a previously architecturally diverse settlement.
- 1.22 A common result of landscape change is increased uniformity and loss of local distinctiveness, which has taken many centuries to evolve. Halting or reversal of change, or pro-active change management is required to protect local distinctiveness. To achieve this objective it is necessary to understand the pressures for change that are acting upon the landscape.

Pressures on the Landscape

- 1.23 The 20th century has been extraordinary in terms of the magnitude and pace of change in North Lincolnshire, although many of the forces for such change had their roots in the Industrial Revolution of the 19th century.
- 1.24 Technology and trade have brought many undeniable improvements in the quality of life. With such improvements, however, has come a move to standardised solutions for building, agriculture and communications, which tend to ignore, rather than reflect, the landscape character of places and the differing ecosystems of the area.
- 1.25 The principal changes that have occurred in the 20th century have been identified as follows:
- i) Expansion of settlements, particularly urban settlement around Scunthorpe, resulting in loss of open countryside and semi-natural habitats.
 - ii) Industrialisation, particularly of the Killingholme area, as a result of North Lincolnshire's strategic location in relation to European trade. Pressures also around settlements and on major transport corridors.
 - iii) Various types of new development in the countryside, including industrial redevelopment of wartime airfields, development or extension of quarries, construction of industrial style farm sheds, poultry farms etc; growth of housing and gentrification of property in certain villages.
 - iv) Increase in traffic and construction of a number of new roads, particularly the M180, A180(T), A15(T), and improvement of others, resulting in visual impact, light and noise pollution, and opening up the area for industrial development.
 - v) Construction of the Humber Bridge and approach roads, providing access to Hull, East Yorkshire and the North East of England.
 - vi) Development of Humberside International Airport on a former wartime airfield.
 - vii) Intensification in agricultural use, farm amalgamation and a move away from pasture towards arable, with consequent loss of hedgerows, field and hedgerow trees, decline in the condition of field boundaries, and significant loss of grassland habitats, exacerbated by CAP support.
 - viii) Loss of woodland, including ancient woodland, to coniferisation or conifer / broadleaved mixes. Loss and decline in associated habitats such as edge, fringing grassland and rides.
 - ix) Loss of peatlands through extraction and water table lowering.
 - x) Significant loss of heathland has occurred, in the region of 80-90% reduction since the 1920's, to agriculture, urban and industrial development.

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

- x) Increasing populations and a growth in leisure time have resulted in recreational pressure on the countryside and provision for such activities in a countryside setting.
 - xii) An enormous growth in the requirement for landfill and tipping facilities has led to development of landfill sites in rural areas.
 - xiii) Disposal of industrial and human waste has resulted in air and water pollution. Air pollution affects natural vegetation in woodland, heathland and elsewhere.
 - xiv) Vastly increased water consumption for industrial, agricultural and domestic purposes in an area of low rainfall has resulted in lowering of the water table with consequent impact on wetland and other habitats, and upon agricultural practices. Warping drains have been infilled and ploughed over in many cases.
 - xv) Pressure on water quality as a result of agricultural practices leading to increased surface and ground water pollution.
 - xvi) Dereliction of land and its subsequent reclamation in certain areas has had a significant impact on the landscape.
 - xvii) A growth in services infrastructure, including transmission lines, electricity distribution lines, telegraph poles, radio and telecommunications masts, has had a considerable impact.
 - xviii) Construction of coastal defences, flood embankments etc. have resulted in localised impacts, and the wider consequences of loss of river floodplains with resulting impoverishment of natural habitats.
 - xix) Development has resulted in some beneficial effects, e.g. many flooded clay and gravel pits have added diversity to landscape character and have become valuable wildlife habitats.
- 1.26 The main pressures and opportunities that could influence the landscape during the next decades are as follows:
- i) Agricultural practices
 - ii) Urban and village growth
 - iii) New development in the countryside
 - iv) Roads improvement and access to the countryside
 - v) Tourism and recreation
 - vi) Forestry, trees and woodland
 - vii) Communications, infrastructure, power generation and transmission

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

- viii) Quarrying, extraction of aggregates and landfill
 - ix) Coastal activities and natural processes
 - x) Repair and reinstatement of derelict landscape
 - xi) Declining water resources
 - xii) Further decline, protection and enhancement of natural habitats.
- 1.27 Broad landscape guidelines relating to the above issues are included within the North Lincolnshire Countryside Design Summary, which is intended to act as supplementary planning guidance where appropriate.

Agricultural Practices

- 1.28 Some 89% of North Lincolnshire is in agricultural use. Any changes in agricultural practices and agricultural policy will therefore have an important impact on the countryside.
- 1.29 Agricultural practices have reflected changed markets and the effects of Common Agricultural Policy subsidies. Major reform of the Common Agricultural Policy is underway as this report is being written, but as yet there is insufficient information to be able to predict the effects such reforms will have on the countryside in any detail. It seems clear that there will be a shift from price support towards direct payments, and public intervention for agricultural products should return to its originally intended role as a safety net in cases of severe market disruptions. Farm support mechanisms will not therefore be able to guarantee farm incomes in the long term, and it is likely that there will be an increasing trend towards expansion, diversification or specialisation. Payments are also likely to be linked to environmental conditions, which may well benefit the landscape through the protection of semi-natural habitats, or protection of cultural heritage sites, and possibly the maintenance and repair of landscape features, although it is not clear as yet which aspects of the landscape will be targeted. Although reform may bring greater pressure for intensive farming, it is possible for farmers to continue farming the balance of their holding on intensive lines, without neglecting watercourses, hedges, hedgerow trees and other important landscape features.
- 1.30 Farm diversification is likely to be a continuing pressure in the face of reform to the Common Agricultural Policy. Outcomes may include production of renewable raw material for non-food purposes or the energy sector, rural tourism, organic farming or production of high quality produce. Whilst diversification will be essential for maintenance of a thriving rural economy, pressure for recreational development in the open countryside could result in siting of new buildings, car parks and signage with associated visual impacts. It could also result in the planting of inappropriate species which would impact on landscape character, such as Christmas trees, and biofuel crops, which are well suited to floodplain locations but which can be damaging both visually and ecologically unless they are carefully designed and managed.
- 1.31 Hedgerows and field boundaries are under continual pressure especially in arable areas. While hedgerow removal has been partially halted with the introduction of the Hedgerow Regulations, the greater threat to hedgerows is degradation through lack of proper management and repair, leading to weakening, fragmentation and eventual loss. In certain areas significant replacement and repair of hedgerows is underway, particularly in areas near

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

the new transmission line between Killingholme and Keadby where landscape enhancement measures have been undertaken in mitigation for this development, and in the Horkstow area where a Countryside Stewardship Scheme has contributed substantially to hedgerow repair. However, hedgerow repair is far from universal, and urgent action will be needed to halt the ongoing decline. There has been a major reduction in the size and nature of historic open field strip systems due to amalgamation of strips through land purchase and swaps as a result of agricultural development and agricultural policies and support systems.

- 1.32 Reduction in water quality through runoff containing fertilisers into ditches, springs and rivers is an ongoing pressure that can result in the reduction in the diversity of marginal aquatic vegetation.
- 1.33 The move towards increased arable production has seen an increase in the number of industrial style farm buildings, because of the need to accommodate increasingly large machinery. In the past such buildings were not subject to planning consent and this is largely still true although recent reforms have tightened controls on significant building within units under 5 hectares in area, where extensions and alterations are only permitted where they do not add more than 10% to the content of the original building. Poultry sheds are now a common feature although this may change with pressures to move away from battery farming.
- 1.34 The Countryside Stewardship Scheme is beneficial on a limited scale in helping to retain and recreate some of the scarcer habitats, including chalk and limestone grassland, wet grassland and riparian habitats, grazing marshes, lowland heath, old meadows and pastures and has recently been enhanced by its extension to historic features, hedgerows boundary features and field margins and through targeting of grant aid in relation to regional landscape character area priorities. Planting on farmland is being restored to a limited degree as a result of grant aid incentives.

Urban and Village Growth

- 1.35 Recent projections of national demands for new housing take into account the changing nature of society and the increased number of single people. This demand will inevitably place pressure on the urban fringe and on existing villages and could result in the requirement for the construction of new settlements.
- 1.36 The need for new housing can be a major threat to the landscape, especially if it does not reflect local scale, materials, colour and style and is not sympathetically sited. Growth accommodated in villages may be to the benefit of small village communities on the margins of economic viability but the landscape impact, felt at a local level, will usually be controversial. Where sited on the edge of rural villages, housing development may often result in the loss of important features of the setting of the settlement, including trees and hedgerows, and historic field patterns, and possibly pockets of unimproved grassland, which where they remain, tend to be concentrated around village fringes. Policies in the Deposit Draft of the North Lincolnshire Plan controls are aimed at limiting development within the majority of villages to minor infilling. Within the 'medium growth settlements' of Barrow upon Humber, Broughton, Crowle, Epworth, Keadby, Kirton in Lindsey, Messingham and Winterton larger developments will be permitted if they are in keeping with landscape character.
- 1.37 It is likely, in the current climate for home improvement, that the process of gentrification of rural properties will continue, possibly at the expense of settlement character, particularly where settlements are not protected under Conservation Area designation, or where buildings

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

are not listed. The production of the Countryside Design Summary by North Lincolnshire Council should help to ensure that new development is appropriate and enhances village character.

- 1.38 In an urban fringe situation, housing development can result in a visual improvement if it is carefully integrated into the surrounding landscape, and replaces a poorly integrated development edge. Anticipation of future development on 'White Land' within the urban fringe, and purchasing of such areas speculatively by developers, can result in degraded appearance of such areas due to lack of proper management. Human pressures of trespass, vandalism litter and erosion can aggravate the problem. An indirect effect of the phenomena can be improved ecological value due to the reduced intensity of agricultural use.
- 1.39 Strategic sites for industrial development include South Humber Bank, North Killingholme Airfield, north, north east and south east Scunthorpe, Brigg, Barton, New Holland, Flixborough, River Humber and Trent Wharves and Humberside International Airport. Pressure for improvement for road and rail links may result from the development of these sites

New Development in the Countryside

- 1.40 Although present planning policies strictly limit the scope for new housing in open countryside, there will always be some demand for re-use of old farm buildings, construction of dwellings for agricultural workers/retired farmers and new dwellings, sometimes of an innovative nature, e.g. buried 'earth-shelters'.
- 1.41 Pressures may occur for industrial or employment land within a rural setting, especially in sites where there is a previous history of this type of land use, for example where old airfields are redeveloped for industry, storage or distribution facilities. Such developments are usually difficult to accommodate within a rural setting, unless the area is heavily wooded and nature conservation considerations are not paramount.

Road Improvement and Access to the Countryside

- 1.42 Highway standards in terms of minimum curves, visibility, safety barriers, surfacing, and signage have brought a welcome reduction in accidents and journey times. Yet the use of standardised solutions in highway design has eroded the rural character of many roads (exemplified by hedges, ditches, verges, and trees) and has opened up quiet areas to noise and disturbance.
- 1.43 The threat of further road improvement to accommodate more traffic is receding with the shift in government policy away from the massive road building programme of the 1980s and early 1990s. The advent of the Highways Agency's Good Road Guide has resulted in some improvement in design standards and road building has in recent years often provided opportunities for significant landscape enhancement, in place of screen planting that was more prevalent in the 1980s. The pressure to improve road safety is likely to continue, with requirements for minor realignment and design standard improvement, which can have considerable environmental impact.

With increased mobility and leisure expectations will come increased demand for access to the countryside for informal recreation. This usually involves parking the car before walking/

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

cycling, etc. but some leisure activities are based on motorised access to the countryside. The application of highway design standards to minor roads could result in significant erosion of rural character and should be resisted.

- 1.44 Factors to consider in future improvements to the road network include:
- 1.45 The importance of a strategic overview of need, alternatives and environmental assessment in major and moderate scale road schemes.
- i) The careful use of colour, materials and designs in hard landscaping, road furniture and soft landscape treatment.
 - ii) Attention to restoration of roadside landscapes and general landscape enhancement following improvements.
 - iii) The need to monitor, plan for and zone (if necessary), off-road motorised leisure such as scrambling, 4WD pursuits, etc.
 - iv) Further consideration of impacts such as noise and night-time light pollution.

Tourism and Recreation

- 1.46 Tourism is the third largest industry in Great Britain and is important at a national level, in terms of foreign exchange earnings, and at a local level in terms of employment. The coast is promoted for its character and its beaches, and many visitors will pass through North Lincolnshire to reach such destinations. Within North Lincolnshire important destinations include the Humber Bridge, Wesley's birthplace at Epworth, Elsham Hall and Wildlife Park, Normanby Hall Country Park, Baysgarth House Museum, Barton Clay Pits Nature Reserve, St Peter's Church and Anglo-Saxon burial ground at Barton upon Humber, Wrawby Post Mill, Mount Pleasant Windmill, Thornton Abbey and the North Lincolnshire Museum and Art Gallery at Scunthorpe.
- 1.47 Whilst tourism is not a major industry in North Lincolnshire, it is growing annually and there is considerable visitor pressure on certain sites. Landscape issues will need to be considered as part of a strategic approach in provision for tourists and visitors.
- 1.48 Recreational pressures include the demand for golf courses in rural and edge of town settings; the development of private leisure complexes and clubs; the demands placed by sports and hobbies such as rally car racing, off road vehicles, scrambling bikes, paintballing, mountain biking and horse riding; all of which can have a cumulative impact on the character of the countryside and its habitats. Golf courses, and particularly their landscape management, can result in a landscape character that is significantly at odds with its setting. More passive recreational pursuits, such as walking, fishing and boating carry less environmental impact in themselves, although they often carry with them requirement for parking, toilets, litter disposal etc.
- 1.49 The present government's proposal to secure greater rights of access to the countryside through the 'Right to Roam' could have an impact on sensitive habitats such as the heathland areas, and on areas of Common, of which there are significant areas around Crowle;

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

however this development is unlikely to result in significant countryside change.

Forestry, Trees and Woodland

- 1.50 Woodland represents a minor percentage of the landcover of North Lincolnshire. Although there are extensive areas of heathy woodland east of Scunthorpe, the relative openness of most of North Lincolnshire's landscape is very apparent.
- 1.51 Government policy has resulted in a change in emphasis from timber production towards multifunctional woodland, and from coniferous to broad-leaved woodland, in contrast to previous economic pressures which resulted in a move towards conifer production. Government grant schemes also encourage active woodland management although these are not very generous.
- 1.52 New woodland management plans prepared by Forest Enterprise give greater attention to nature conservation in felling and restocking programmes, in glade, ride and edge treatment. Private owners are also being encouraged to undertake nature conservation measures through the Woodland Grant Scheme.
- 1.53 The Forestry Commission is in the process of selling some of its areas of woodland. Once such woodland falls into private hands they can be clear felled, managed unsympathetically or planted with inappropriate species. They may be sold to shooting syndicates with implications for wildlife landscape and recreation.
- 1.54 Pressures on woodland areas include recreational pressures, particularly where this is uncontrolled such as within urban fringe woodland to the east of Scunthorpe, and also where managed recreational pursuits occur in a woodland setting, e.g. paintballing.
- 1.55 The use of native species in new woodland can bring ecological benefit, e.g. where lost ecosystems can be reconstructed. The best example might be alluvial (or floodplain) forests; a nationally rare type but one which could be reconstructed in the Ancholme Valley and the Trent Levels. However, it should be recognised equally that exotic and naturalised species have made a very significant contribution to North Lincolnshire's landscape character, e.g. the pine woods of the Lincoln Edge, the beech/sycamore woodland of the Wolds, the Lombardy poplars of the Trent Levels. Equally, they can have a significant adverse impact such as shelterbelts of Cypress, which are common on the Isle of Axholme and in the Trent Levels.
- 1.56 Inappropriately designed landscaping can have, on occasions, a greater adverse impact than the development it is trying to screen, and can in itself contribute to a weakening of local identity. Where associated with existing development, it is outside the scope for planning control, except through the medium of education and guidance. In order to avoid further weakening of local character, it is essential that during preparation of planting schemes reference is made to the Landscape Assessment and Countryside Design Summary.

Communications, Infrastructure, Power Generation and Transmission

- 1.57 North Lincolnshire has power stations at Killingholme and Keadby with extensive transmission routes connecting between these two stations and with West Burton Power Station further

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

south along the Trent in Nottinghamshire. Power lines are visually intrusive but careful siting and strategic consideration of alternative alignments or rationalisation of existing towers can reduce the effects.

- 1.58 The National Grid Company has an obligation to connect new power stations to the Grid system, which may result in the need to construct additional transmission lines. At present, there is considerable pressure from power companies for the construction of new power stations. Applications for power stations are considered in isolation from the application for the line to connect to the Grid, which may have far more significant environmental impact than the station itself. The continual need for upgrading the transmission system can also result in the need for further substations, which by their nature are normally sited in rural locations.
- 1.59 While it is difficult to mitigate the visual impact of transmission lines, careful siting following the National Grid Company's Holford Rules can minimise their impact. The use of underground cabling tends to be restricted to urban areas and is prohibitively expensive in all but the most sensitive rural locations. The impact of substations can be more readily mitigated, and the National Grid Company follows detailed guidelines on their siting and design. While such developments do bring inevitable impacts, the National Grid Company has amenity obligations to fulfil under the terms of the Electricity Act, and developments can bring with them significant opportunities for landscape enhancement, as has occurred as part of the development of the second 400kV line between Killingholme and Keadby.
- 1.60 Another development is the shift in government policy towards wind power generation. Within North Lincolnshire, windy sites are found along the North Sea coast, Humber estuary and on high ground inland. With government targets for wind power generation likely to rise, it is likely there will be increasing pressure to consider sites within North Lincolnshire. Although wind farms are an exciting means of generating clean electricity, by their nature they tend to be sited in areas of high visibility and often high landscape value. In determining the suitability of sites for the development of wind power, it will be necessary to balance the requirement for prominent sites with the need to protect landscape character and quality. Other issues that will require consideration include ecology, noise and secondary effects, e.g. new transmission cabling and access roads.
- 1.61 With the present proliferation in telecommunications, demand for masts is likely to continue particularly in exposed elevated areas.

Quarrying, Extraction of Aggregates and Landfill

- 1.62 The economy of North Lincolnshire has historically benefited from various mineral resources. The development of Scunthorpe was dependent on ironstone extraction. At present, chalk quarries and clay, sand and gravel extraction sites are active. Peat and Jurassic limestone have also been important and continue to be extracted on a small scale. There are also reserves of oil, gas, ironstone, sand and gravel. It is likely that pressures for quarrying will continue, with possible further pressure to utilise quarries for landfill or tipping of inert waste. An increasing pressure will be for the provision of facilities for aggregate recycling, which is likely to result in delay of the long term restoration of mineral sites.
- 1.63 Selection of sites for new quarries is subject to environmental assessment and increasingly issues such as groundwater protection, protection of best and most versatile agricultural land, landscape protection, nature conservation and cultural heritage protection limits opportunities

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

for development of new quarries or extension or infilling of existing quarries. Quarries at Melton Ross, South Ferriby and the disused Leggotts Quarry (adjacent to South Ferriby) are all located on major aquifers which limit their suitability for future landfill use or for backfilling with e.g. colliery spoil, although the quarry at Melton Ross has an outstanding permission for import of inert waste, much of which (or possibly all) has now been used. Both South Ferriby Quarry and Leggotts Quarry are protected by designations (geological SSSI and SNCI respectively) which limit their future use and further development.

- 1.64 North Lincolnshire has an annual requirement for the disposal of more than 2 million tonnes of waste each year, the majority of which are landfilled. Although there are government targets for the reduction of waste, and incentives such as the Landfill Tax, it is likely that there will continue to be a significant requirement for landfill opportunities. Given the void space currently available, new disposal sites will not be required in the near future, but in the long term there may be pressure for landraised sites, which would be likely to have a significant adverse effect on landscape character.
- 1.65 Landfill sites are committed at Conesby Gullet, Crosby Warren, Roxby Gullet, Winterton Gullet, Yarborough Gullet, with possible future sites at Dragonby North and South and Dragonby and Santon underground mines. Reserves of ironstone and oil are present to the east of Yarborough Gullet and may come under pressure for development in the future, once they become economic to extract. At Crosby Warren, there is ongoing oil extraction, and there may be pressure to extend the number of boreholes in the future or to develop oil production wells with their associated infrastructure. Sand and gravel reserves at Flixborough and Haxey are likely to be exploited in the future to ensure an adequate supply of the material within North Lincolnshire and silica sand reserves at Messingham and Manton are likely to be exploited to ensure an adequate supply of the national resource. Clay reserves at Barrow Haven, Barton upon Humber and between Epworth and Owston Ferry will be safeguarded for future exploitation.

Coastal Process and Management

- 1.66 The Holderness and Lincolnshire coasts, along with the Humber Estuary, function as a coastal cell in which processes of erosion and deposition would naturally be in a form of balance. However, the armouring of sea defences has led to a net reduction and a lack of recharge of sediments within the estuary. The complexity of coastal processes is only now beginning to be understood. At the same time, a number of issues relating to the continued heavy financial commitment to coastal defences and the future planning status of the coastline are rising up the political agenda.
- 1.67 With the expected further rise in sea level, coast and estuary protection is likely to be a continuing problem. The coast and estuary support many industries that are critical to the regional economy. The value of these coastal areas for wildlife is well recognised and many of the areas are protected by a variety of nature conservation designations. Management plans designed to maintain and enhance their natural interest, along with visitor education should help to ensure long-term survival and protection of these areas. The Humber Estuary Shoreline Management Plan currently being prepared by the Environment Agency also takes nature conservation interest into account.
- 1.68 Pressures for land reclamation, which would damage sensitive ecosystems, could occur. Further threats to the shoreline may occur from dredging, seabed sand and gravel extraction, beach replenishment, and the effects of hard sea defences, which can disrupt natural processes and may result in damage to sensitive habitats.

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

- 1.69 Industrial waste disposed of in the North Sea may threaten sensitive habitats. Oil spillages are a continual threat, and pressures for oil and gas exploration could be harmful to the environment.

Repair and Reinstatement of Derelict Landscape

- 1.70 A significant area of derelict landscape to the north and east of Scunthorpe is targeted in the Local Plan for restoration and creation of new landscape. The area developed as a result of the opencast extraction of ironstone, which commenced in 1859 and ended in 1989, and has resulted in the formation of a series of worked out gulleys extending in a north-south direction within the Lincolnshire Edge. While some of the earlier worked out gulleys to the north have flooded and now provide attractive water features, others have received planning permission for waste tipping and other still fall within British Steel's operational land. Much of the area is derelict and proposals for the area include planting with woodland, landfill, restoration of coversand heath, further exploitation of the mineral resource and development of active and passive recreational facilities. The resulting landscape is likely to be significantly different from the landscape that existed before development.
- 1.71 The Water's Edge site to the east of the Humber Bridge is also being targeted for restoration and landscape creation. The site is an area of derelict contaminated land, 86 acres in size, that is proposed to be treated and restored for use as a Sustainable Country Park with facilities for public access and wildlife conservation. The site has been used for varying industrial purposes for over a hundred years. Early clay extraction has resulted in areas of excavation, which have been infilled with waste materials largely derived from fertiliser and chemical production. Despite its present condition parts of the site form part of the larger Site of Special Scientific Interest (SSSI) Humber Flats and Marshes: Barton and Barrow. Proposals for the site include planting, the creation of new walks and cycle facilities, provision of a new pedestrian bridge, habitat creation (in accordance with the UK Biodiversity Strategy), and provision of a visitor centre/education resource centre, if funding is secured.

Declining Water Resources

- 1.72 Much of the water supply within North Lincolnshire is associated with chalk and sandstone aquifers. Increased agricultural demand for water, coupled with predictions of climatic warming, will place greater demands on rivers and aquifers. Although partly regulated by abstraction consents, decline in groundwater may lead to further loss of wet grassland, heathland and ecologically valuable vegetation. A reaction to this decline, in the form of farm reservoir construction, may have visual implications.

Further Decline, Protection and Enhancement of Natural Habitats

- 1.73 Present threats to remaining areas of heathland include a depressed water table, which encourages scrub encroachment, nutrient enrichment, further fragmentation and disturbance from adjoining developments. An intended outcome of the production of biodiversity strategies will be the identification of habitat shortfall, with support for habitat repair and reinstatement. Incentive schemes such as Countryside Stewardship and English Nature's Reserves Enhancement Scheme offer grants for heathland re-creation. It is also likely that such habitats will come under pressure for further protection and the current decline in heathland may be halted or reversed. The main continuing threat will be reduced ground water levels, although this is currently being addressed for the most valuable sites through the preparation of water level management plans.

North Lincolnshire Council

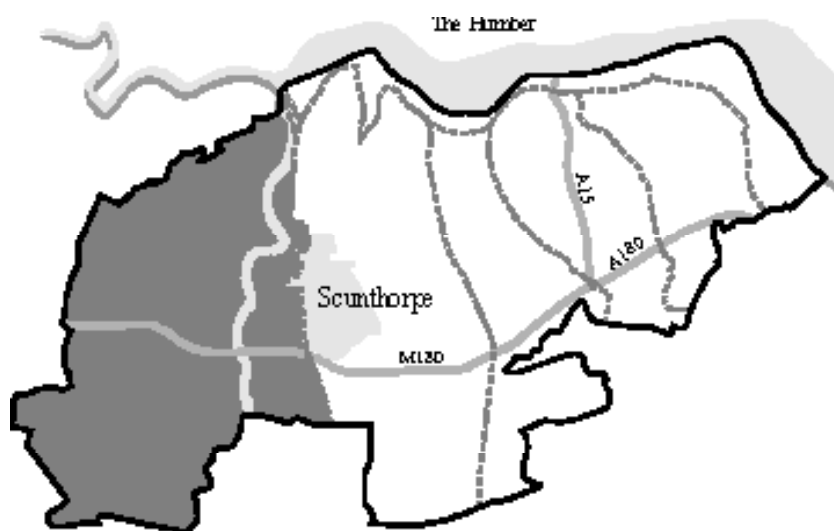
North Lincolnshire Landscape Character Assessment and Guidelines

- 1.74 Some minor peat extraction occurs on the Crowle Moors. There is continuing pressure to end peat extraction and protect this rare habitat type and the decline may well be halted. As for areas of heathland, peat areas are susceptible to decline in ground water levels, and there will be pressure to investigate methods of maintaining water levels.
- 1.75 Economic pressures militate against significant return of grassland habitats. Larger machinery and more advanced agricultural technology have made small grass fields uneconomic. Where grass is required, it is frequently grown for silage under an arable system. It is unlikely therefore that there will be a significant return to large areas of grassland; however pressure to protect the remaining examples is likely to continue. In addition, the Environment Agency is undertaking limited restoration of river floodplains, and incentives are offered for this habitat type under the Stewardship scheme.
- 1.76 Chalk and limestone grasslands have similarly suffered from agricultural intensification and the habitat is now rare in the district. Pressure for protection will result in a halt in the decline with potential for reinstatement of limited areas under the Countryside Stewardship Scheme.
- 1.77 Some of the best examples of wetland habitats in North Lincolnshire are those that have resulted from man made processes, such as the water filled clay pits between Barton and New Holland, many of which are important refuges for rare or endangered species. Threats to such areas include pressure for further clay extraction, waste disposal, recreational pressures, water level reduction as a result of abstraction of groundwater and the effects of natural succession, which can result in reduced ecological value without proper management. There is some evidence that impacts will be reversed through management. The Environment Agency are taking a more sympathetic approach to nature conservation issues e.g. through catchment management plans and Internal Drainage Boards are similarly paying more regard to nature conservation interests in the management of drains.

SECTION TWO:
**LANDSCAPE
ASSESSMENT &
GUIDELINES**

TRENT LEVELS

PART 1: LANDSCAPE CHARACTER



Key Characteristics

- i) Essentially flat, open floodplain landscape with occasional rising ground and little vegetative cover.
- ii) Large open field structure defined by well-maintained drainage ditches. Hedgerow planting helps to define boundary areas in places, however hedges are generally badly maintained and gapped.
- iii) Landscape offers expansive views with very little diversity in character. Woodland blocks, rising ground and settlements create distant enclosure.
- iv) Open arable areas are occasionally punctured by small woodland copses, farmsteads, shelterbelts, overhead electricity pylons and well-treed settlements.
- v) Farming intensification has led to the loss of hedgerows in places and the consequential breakdown of field structure.
- vi) The area is dominated by linear features, long narrow roads flanked by drainage ditches, rectilinear field patterns, shelterbelts, field drainage systems, overhead electricity pylon runs and some major transport corridors i.e. the M180 and railway.
- vii) Larger settlements are found on higher ground or adjacent to the banks of the River Trent. The open floodplains are generally unpopulated with only small farmsteads and associated barns/sheds.
- viii) The open floodplain areas illustrate the typical character of this landscape character area

with tendencies for enclosure and a more intimate landscape to occur around settlements.

Geographic Location

The Trent Levels is the most westerly landscape character area in North Lincolnshire. The area is defined by the North Lincolnshire boundary to the west and in the east by the springline of the scarp slope at the foot of the Lincolnshire Edge. In the north, the estuarine mudflats and seasonally flooding meadows on the southern bank of the Humber Estuary mark the extent of the area. In the south and west the extent of the area is set by the North Lincolnshire boundary, however the character continues to the edge of the raised mires and heathland associated with Thorne and Goole. The majority of the landscape character area comprises the low-lying floodplain areas of the River Trent running through the area from north to south.

Physical Influences

The low-lying level topography characteristic of the area is the result of the glacially impounded Lake Humber, of the late Quaternary era. The water body deposited an even layer of sediment, in this case laminated clays, often reaching a depth of 20 metres over the underlying Triassic marls and sandstone.

Occasionally elevated ground has been formed by exposed areas of blown sand and Mercia Mudstone, the most distinct being the gently rising Isle of Axholme in the west of the area. The looser sandy soils common to the elevated ground have tendencies to support birch and oak woodland due to their lower fertility levels.

Historic and Cultural Influences

There is evidence from beneath the peat of Thorne and Hatfield Moors to suggest the existence of a pre-Bronze Age forest, which was later replaced by raised mire as wetter conditions developed. It was because this landscape was so difficult to cultivate or inhabit that early settlement concentrated in the more elevated areas. By medieval times, the landscape structure was one of settlement and strip farming on the raised ground of the isles and river levees of the Trent and Ouse, with pasture on seasonally flooded areas and raised mires left permanently wet.

Attempts to drain the land date back to Roman times. The main period of drainage came in the early 17th century when Dutch engineers demonstrated new techniques practiced in their homeland. Major river diversions and intricate drainage systems have given rise to the open, geometric field structure of today's floodplain landscape. The fertility of the land has also been dramatically improved by the practice of 'warping', where fields were seasonally flooded with tidal waters, depositing rich alluvial silt over the land. These practices have created an area of intensively farmed, high grade (Grades 1 and 2) agricultural land.

The modification of farming systems during the 20th century has seen the breakdown of some of the field structure in the area, giving rise to larger, more expansive fields. However the medieval pattern of land use is still traceable in the grain of the present day landscape despite large scale changes in the last 300 years. Areas of relict medieval open field are distinguishable from areas of land enclosed from the open fields in a piecemeal fashion (Early Enclosed Land) and common pastures which have been drained and subject to parliamentary enclosure (Recently Enclosed Land), with relict areas of raised mire and turbarry.

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

Older roads follow more winding routes across the area, following dry paths used in medieval times, whilst newer road networks take straighter more direct routes, either utilising slightly raised drainage lines lowering the risk of flooding, or following rectilinear field boundaries. In many cases, the roads are characteristically flanked by well-maintained drainage ditches.

Major transport corridors, the M180 and railways, have a distinct impact on this flat open landscape. In many areas, their routes can be identified by large embankments and thick, linear tree and shrub planting.

Overhead electricity transmission lines visually dominate the floodplain areas adjacent to the river, with particular note to the areas surrounding Flixborough Stather, Gunness and Althorpe, where both settlements and industry hug the river banks.

A detailed historic landscape characterisation of the area has been undertaken of the Isle of Axholme for the Countryside Commission by Keith Miller, to which the reader is referred for detailed insight into the development of this landscape. The study confirms the national significance of the Axholme's area of open fields, showing them to be the largest and most varied survival of open field strip cultivation within the country, and also the most threatened by current agricultural and building developments.

Settlements and Buildings

The pattern of rural settlements has been strongly influenced by the historic development of the landscape. Rural settlements are few, tending to crowd the elevated land in the west and the banks of the River Trent. The open floodplain areas are host to occasional farmsteads with associated barns, usually of a modern vernacular, and scattered well-treed settlements, both puncturing the expansive views and adding variety to the landscape. Windmills, water towers and churches are recurrent landscape features, their dominance over the surrounding landscape amplified by its flat open nature.

The local vernacular combines the use of red brick with either slate or clay pantile roof tiles. Modern developments have grown around the historic core areas, in places adopting the traditional building materials, however there is evidence of large agro-industrial buildings made from modern prefabricated materials associated with rural farmsteads. Detached and semi-detached housing dominates many settlements; in areas such as Crowle bungalows have become a popular choice, reducing visual impact on the surrounding landscape.

There is a trend throughout the area for smaller field sizes in the peripheral areas of settlements, resulting in the development of a more enclosed, structured and intimate landscape. Field trees, hedgerows and fragmented woodland have a greater presence giving settlements visual dominance when viewed from the open arable areas.

Landcover and Wildlife

Hedges were not a feature of the medieval open field system, and where these landscapes survive intact, hedges are absent. In areas that were subject of enclosure, hedgerows were more common, but in many areas they have since been removed as part of a process of field amalgamation, aiding the development of a large open field structure. Where they occur hedges have a tendency to either be over clipped and gapped forming a loose boundary, or unmanaged with intermittent tree cover. A few small wooded copses occur in areas adjacent to farmsteads, along with characteristic shelterbelts of both deciduous and evergreen species.

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

There are few large scale woodland blocks; those that occur create a sense of distant enclosure. Woodland cover increases in areas surrounding farmsteads and settlements, amplifying their dominance over the surrounding landscape.

Areas of importance for nature conservation include the turbarry (wet grassland) areas of Epworth and Haxey, remnant common areas south west of Haxey, and the drainage dykes which provide important refuges for wildlife. Pockets of heathland also survive on areas of windblown sand.

The Changing Countryside

Once an area rich with floodplain meadows and seasonally flooding pastures, extensive agricultural modification has led to the development of a high grade arable landscape. Continued farming intensification has resulted in the loss of hedgerows, tree cover and small woodland copses, diluting landscape structure and adding to the area's open character.

Modifications to the water table through pumping and drainage have seen the further loss of important habitats. In certain areas redundant dikes have been filled and ploughed, creating the distinct large field pattern covering the floodplain area. The continual loss of grassland, heaths and mires have left few ecologically important sites; those that remain require conservation and management to ensure their long-term prosperity.

Industrialisation creates a marked impact on the surrounding countryside in the Gunness, Amcotts and Flixborough area, industry and cranes associated river wharf areas are visible from long distances in the open landscape, with little attention paid to their visual impact. The proliferation of transmission lines in the area around Keadby Power Station has a particularly marked industrialising influence on the countryside.

Improvements in transport networks have seen the construction of the M180 motorway, with its high-engineered embankments, bridges and other associated structures becoming visually intrusive over the predominantly flat surroundings.

There are a number of measures being taken to ensure a balance between agricultural, industrial, recreation and conservation activities along the River Trent valley. The River Trent Floodplain Initiative and Environment Agency Plan for the lower Trent and Erewash valleys have similar objectives, which include:

- i) Improvement and maintenance of flood defence systems and water quality within the river.
- ii) Improvement of recreational facilities, where possible combining them with nature conservation sites.
- iii) Development of wildlife potential, in particular within floodplain meadows now dominated by farmland.
- iv) Maintenance of strict controls and measures to govern the development of industrial activities along the river valley, in particular waste disposal sites, power and fuel generation industries.

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

Future pressures for change may include:

- i) Pressure for further reduction of the size and nature of historic open field strip systems, as a result of agricultural development, policies and support systems.
- i) Growth of the settlements of Keadby, Crowle and Epworth.
- ii) Industrial growth along Trent Wharves (Gunness, Keadby, Grove Wharf, Neap House, Flixborough, Burton upon Stather).
- iii) Recreational development of riverside.
- iv) Encouragement of new permissive paths under CSS.
- v) The Right to Roam movement could lead to pressures on common areas and lowland heath.
- vi) Landscape enhancement proposed for the eastern boundary of Epworth.
- vii) Possible future sand and gravel extraction at Haxey.
- viii) Possible exploitation of clay reserves between Epworth and Owston Ferry.
- ix) Possible pressure to end peat exploitation at Crowle.
- x) Further pressure on heathland and peat areas as a result of depletion of groundwater levels.
- xi) Protection and enhancement of wetland, lowland heath, pastures and hay meadows and field boundary features under the CSS.

Visual Characteristics of the Landscape

A predominantly flat open landscape with occasional areas of rising ground. Changes in landform and woodland cover offer distant enclosure to many views with little interruption from visually intrusive elements.

The influence of modern agricultural land use has introduced landscape components and structure dominated by linear elements, this characteristic being strengthened by the presence of electricity transmission lines, railway lines and major road corridors.

Settlements and associated planting, field trees and occasional woodland blocks have a heightened visual presence in the landscape, puncturing the horizon, due to the flat low-lying nature of the surrounding areas.

The Trent Levels are an area dominated by low-lying floodplains with broad open views. The area is for the most part covered by one character type, **Flat Drained Farmland**. Slight changes in

North Lincolnshire Council

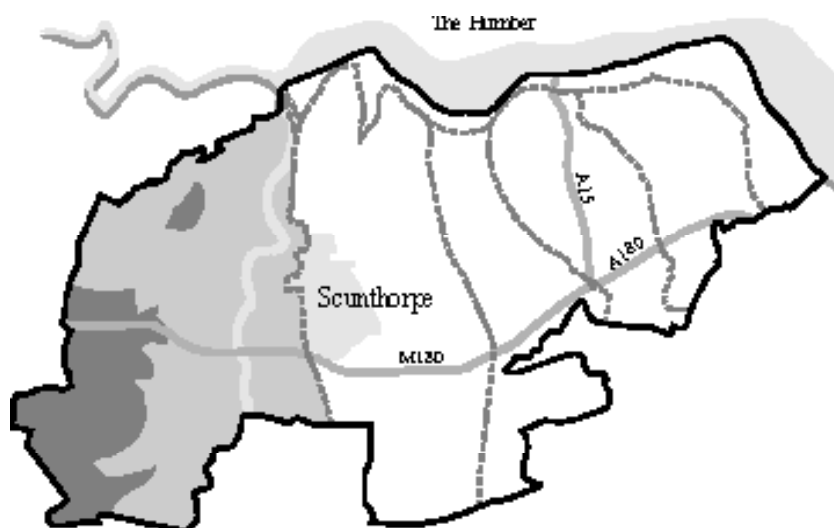
North Lincolnshire Landscape Character Assessment and Guidelines

vegetation cover, land use and historical development give rise to two other main character areas, **Flat Drained Treed Farmland** and **Flat Open Remote Farmland**.

The Isle of Axholme introduces two more character types, **Open Island Farmland** in the elevated areas, between which a small area of **Flat Wooded Farmland** occurs creating a linear visual barrier crossing the area north to south from Crowle to Haxey. This visual barrier introduces diversity to this predominantly flat landscape breaking down views across the area.

Two small areas of **Industrial Landscape** occur at Flixborough Slather and Keadby creating prominent visual detractors in the open floodplain area. South of these an area of **Wooded Springline Farmland** stretches along the base of the escarpment heavily influenced by the neighbouring wooded scarp slope, offering restricted views across the Trent Levels.

Flat Drained Treed Farmland – Carrhouse, Eastoft, Sandtoft, Westwoodside



Key Characteristics

- i) Level, open and expansive arable landscape, largely the product of recent enclosure.
- ii) Views are generally open with localised enclosure around settlement and farmstead areas. The gently rising land in the east gives a sense of distant enclosure.
- iii) Large regular field structure with little hedgerow planting but relatively frequent boundary and field trees and woodland copses. Small pockets of early enclosed land and turbary landscape.
- iv) Occasional small woodland blocks, predominantly of deciduous species. The wooded area of Hatfield Moor to the west of the area lends a strong influence locally.
- v) Distinctive long straight roads, slightly elevated, with drainage ditches running parallel, often on both sides of the road.
- vi) Field boundaries generally indistinct or defined by ditches, occasionally more visibly defined by unmanaged gapped hedgerows, field boundary trees and raised berms associated with drainage dikes.
- vii) A limited number of farmsteads are scattered throughout the area, often combined with large agro-industrial buildings of a prefabricated design.
- viii) Some aggregate extraction sites, often well screened by tree and shrub cover.
- ix) A small area of heathland is present at the southern end of the area. In this area there is a distinct change in tree species with silver birch becoming dominant.

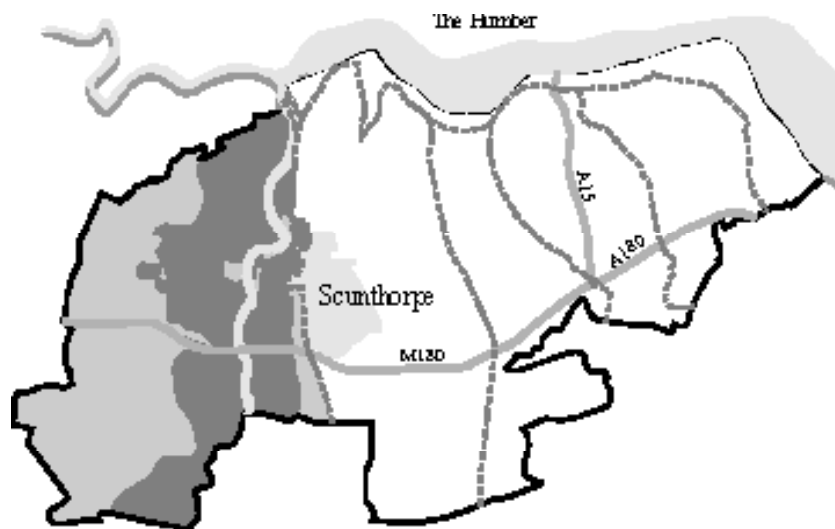
Geographic Location

Extending along the western boundary of the landscape character area, the area takes in the farmland west of the Isle of Axholme. The diffused boundary in the north runs up to the A18 and slightly beyond, while in the south the area gradually runs out into the open floodplain farmland south of Haxey.

Influences

A combination of glacial alluvium and localised pockets of peat cover this flat landscape dominated by large intensively farmed arable fields. The naturally rich soils of the area have been enhanced through the process of warping during the last century, increasing fertility levels and creating high grade agricultural land. This landscape is largely a product of recent enclosure, although small pockets of Early Enclosed Land, allotment areas and turbarry provide variety. With the continual draining and intensification associated with modern farming practices, a landscape lacking structure and distinguishing features has developed. Unlike the neighbouring floodplain farmland the area has managed to retain small areas of woodland, and occasional boundary and copse tree cover.

Flat Drained Farmland – Althorpe, Amcotts, East and West Butterwick, Owston Ferry



Key Characteristics

- i) Expansive, open and level, low-lying farmland. Raised levees flank the River Trent. Intensively farmed arable crops dominate the majority of the area.
- ii) Very few boundary hedgerows, where hedgerows occur they have a tendency to be tightly clipped and fragmented. Frequent dikes and drains, dividing fields.
- iii) Pockets of strip farming survive on the Trent levees to the west of the river, characteristically open as these areas have never been hedged.
- iv) Tree cover is very limited with small enclosures and shelterbelts surrounding farmsteads and settlements. Occasional field trees have a large impact, breaking the expansive views across the landscape.
- v) Away from the banks of the River Trent, settlements are mostly well treed; from a distance it is the tree cover that marks the presence of settlements within the open landscape, rather than the buildings themselves.
- vi) A small number of large farmsteads puncture the open views across the heart of the floodplain.
- vii) The area is bisected by the M180 offering distant enclosure with its raised embankments.
- viii) Transmission lines are a dominant feature of the floodplains, particularly where several runs converge on the Power Station at Keadby. Areas of industrial and wharfside development lend an influence to the landscape.

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

The M180 on an embankment is a prominent feature crossing the open landscape. Other roads tend to be restricted to the edges of the area adjacent to the rising land in the west or follow the meandering path of the River Trent, with only small tracks and lanes crossing the open floodplain. Most roads are paralleled by the characteristic field drains that contribute to the linear structure of the local landscape type.

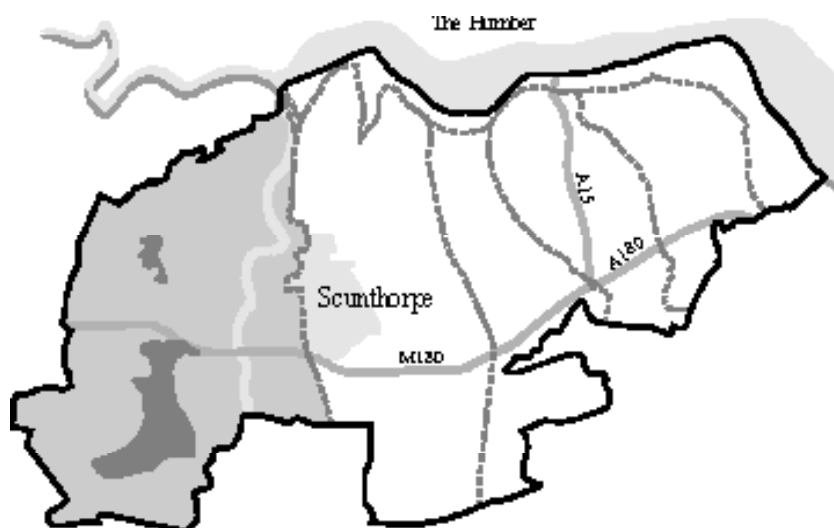
Geographic Location

This broad area of flat open farmland follows the course of the River Trent through the landscape character area. Defined in the east by the springline of the Lincolnshire Edge escarpment the area stretches, on average, 5km until the land begins to rise towards the Isle of Axholme in the west.

Influences

Laminated clays in places reaching depths of 20 metres have been deposited over the underlying Mercia mudstones by the glacially impounded Lake Humber, creating the flat low-lying areas associated with the River Trent floodplains. The seasonally flooding landscape has been extensively modified by modern farming practice and watercourses contained by intricately engineered flood defence schemes. The draining of the landscape has exposed some of the most fertile soils in the region, where in the past fertility was improved through the Dutch practice of warping. Large scale modern farm units have predominated resulting in the almost total loss of landscape structure, leaving the open floodplain areas lacking in tree and hedgerow cover.

Open Island Farmland – Belton, Epworth, East of Crowle, Haxey, Upperthorpe



Key Characteristics

- i) Open arable fields flowing across a gently undulating, rounded landform with localised hillocks and ridges, creating an island of elevated land within the flat landscape.
- ii) The area is probably the most diverse local landscape type within the Trent Levels, combining open elevated views across the arable landscape with more intimate enclosed pockets of historically important land surrounding the settlements.
- iii) There is visual evidence of the medieval strip farming system common to the land surrounding many of the elevated settlements although much of the structure of these systems has been lost to farm intensification and e.g. fencing of strips to provide pastures for horses.
- iv) Linear strips of deciduous and often inappropriate evergreen planting highlight the route of a former railway; inappropriate plantings of e.g. Leylandii are also found along the boundaries of individual strip fields.
- v) Church towers, windmills and water towers are repeating structures within this area, puncturing the mostly unbroken skyline.
- vi) Aggregate extraction and waste disposal sites have been located in areas of topographical depression keeping their visual intrusion to a minimum.
- vii) The sandy free draining land does not require the intricate drainage systems common in the surrounding areas, their absence contributing to the distinctive character of the Isle.

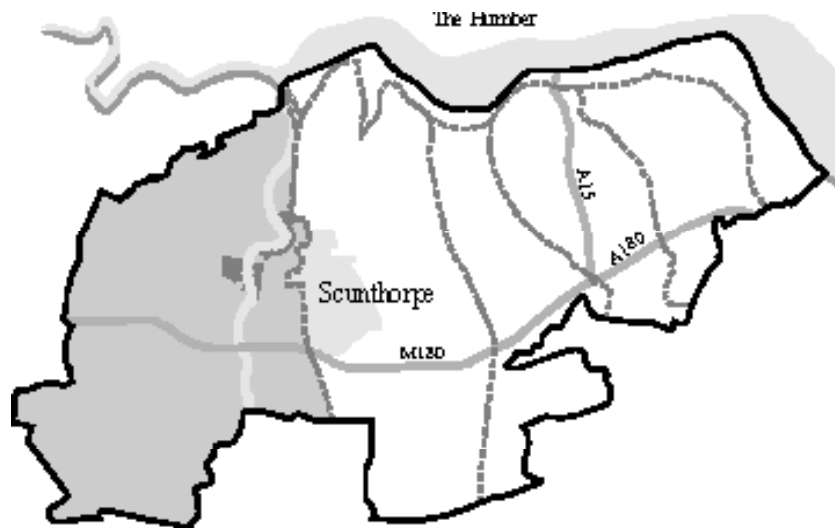
Geographic Location

This local landscape type occurs in two small areas. One area has gently rising land extending between Belton in the north and Haxey in the south, on average 3km in width and rising to some 30 metres in height above the surrounding floodplain. It is a densely populated area in relation to its size, mainly due to the raised topography providing safety from flooding in times of early settlement. The second small area lies to the east of Crowle.

Influences

Being the earliest settled land, the elevated areas associated with the Isle of Axholme are rich with historic influences, some of which are still in evidence. The landscape structure of the Isle is one of a core area of surviving medieval open field and a larger area of Early Enclosed Lands which have experienced considerable hedgerow loss. The exposed outcrops of Keuper Marl and mudstone with areas of blown sand offer a range of free draining soils that are lower in fertility than the surrounding levels and consequently areas of pasture and rough grazing occur more frequently. Agricultural practice has still had a marked influence upon this landscape, breaking down historic field structure and leaving tree cover limited to settlements and occasional woodland, although this decline may have been halted through recent initiatives by the Countryside Agency and English Heritage. The combination of historic influences and the well developed tree cover surrounding the settlements creates a well structured intimate landscape.

Industrial Landscape – Burringham, Gunness, Keadby



Key Characteristics

- i) The riverside industrial areas are well defined and visually prominent marking an abrupt transition from the open agricultural landscape. The associated wharves and shipping provide close range interest and dockside cranes are visible at a distance.
- ii) The industrial character of the area is strengthened by the convergence of several transmission lines on Keadby Power Station north of Althorpe.
- iii) A hard, enclosed landscape with a distinct change in scale and height of structures has been created with few softening features. Views from within industrial areas are generally confined by adjacent structures ,however where views out are available the tend to be open, helping to break down the confinement of this claustrophobic landscape.
- iv) The use of building materials such as concrete, prefabricated steel and wire mesh fencing contribute to the industrial feel.

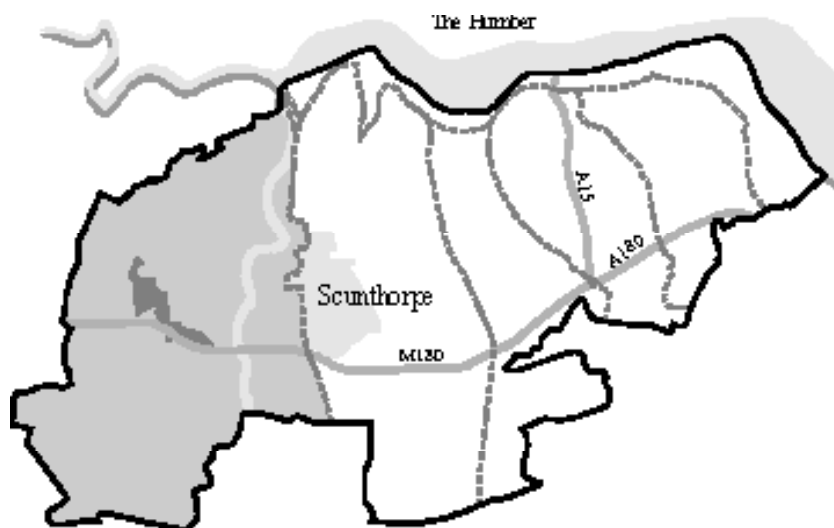
Geographic Location

Two distinct areas of industrial activity are present on the banks of the River Trent surrounding the settlements of Althorpe, Gunness and Flixborough Stather.

Influences

Near to the major settlement area of Scunthorpe and in the locality of the M180, rail terminals and the navigable waterway of the River Trent, a small area of concentrated industry has grown around the Althorpe, Gunness and Flixborough Stather areas. The growth of industry from the Scunthorpe area has spread and influenced the growth of major transport networks capable of handling large amounts of industrial transportation. The presence of such networks will continue to influence the growth of industry in this area.

Flat Wooded Farmland – Mosswood Grange



Key Characteristics

- i) Enclosed farmland area dominated by small, linear pockets of predominantly deciduous woodland.
- ii) Medium sized arable fields with little hedgerow planting; where occurring hedges have a tendency to be tightly clipped and patchy, or overgrown and unmanaged with intermittent tree cover.
- iii) Tree lined avenues are a distinctive feature of the area, flanking roads, major drainage channels and former railway corridors.
- iv) Areas of parkland at Hirst Priory and Temple Bellwood lend a strong influence to this local landscape type. In such areas tree cover includes a wider variety of species.
- v) Pine and birch planting on motorway embankments to the south of the area is inconsistent with the landscape character.

Geographic Location

The area of wooded farmland is located between the lower lying land north of Belton and the southern edge of Crowle. The boundaries to the east and west are defined by a distinct change in character, moving into a predominantly open floodplain landscape. The area is approximately 3km in width with a small area extending to the south east following the embankments of the M180.

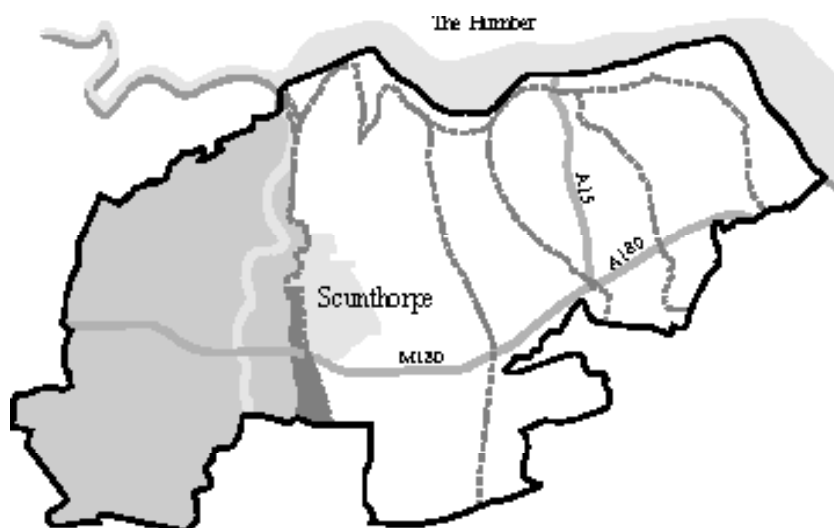
Influences

A continuation of the mudstone and blown sand outcrop from the elevated land to the south has encouraged the growth of agricultural land uses more suited to less fertile soils. Much of this land was enclosed at an early stage. Linear blocks of woodland planting enclose a combination of pasture and grassland with interspersed medium sized open arable fields. This area has also

North Lincolnshire Council
North Lincolnshire Landscape Character Assessment and Guidelines

benefited from significant drainage engineering similar to that seen in the neighbouring floodplain areas but does not take on the intensively farmed appearance of such areas. The wooded settlement of Crowle and parkland areas of Hirst Priory and Temple Bellwood create enclosure to the north and south east.

Wooded Springline Farmland – West of Scunthorpe



Key Characteristics

- i) Well defined woodland blocks, principally of pine and birch, breaking down into more fragmented areas of tree cover intermixed with heathland scrub.
- ii) Farmland is of a similar open nature to the landscape to the west, a mixture of arable and pasture, with boundaries defined by wooded areas, characteristic drainage ditches and occasional low clipped gapped hedgerows.
- iii) There is little tree cover within open arable areas creating a contrast with fringe woodland cover.
- iv) Views are short and enclosed to the east by the rising land of the chalk escarpment and wooded blocks, to the west broad, expansive views are available between areas of woodland across the low-lying floodplain areas.
- v) The area is scattered with small pockets of open water, the presence of which has attracted recreation and conservation land uses i.e. nature reserves, fishing lakes, and caravan sites.
- vi) There are very few farmsteads or areas of built development, those that occur have a tendency to be screened from open areas by woodland planting.
- vii) An urban fringe characteristic encroaches the land adjacent to Scotter Road defining the eastern edge of suburban Scunthorpe. In this area woodland is used for informal recreation, and has suffered from the impacts of erosion and littering. Land uses in this area include garden centres, mobile home parks and retail developments.

Geographic Location

North Lincolnshire Council

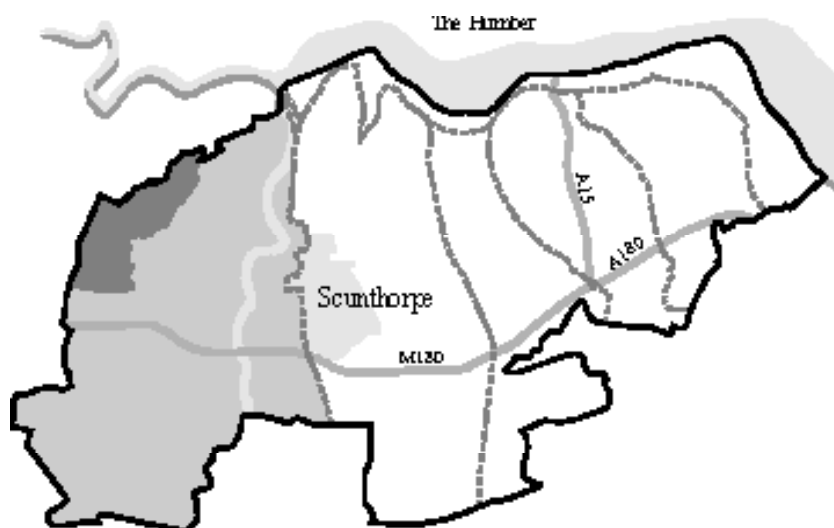
North Lincolnshire Landscape Character Assessment and Guidelines

A thin strip of farmland located at the foot of the Lincolnshire Edge escarpment, due west of Scunthorpe. The area is contained within the M181 to the west and Scotter Road to the east and extends approximately 3km south of the M180 adjoining the North Lincolnshire boundary.

Influences

As a result of the juxtaposition between the free draining chalk escarpment and the impeded drainage associated with the underlying alluvial deposits and laminated clays, a landscape has evolved in which springs, drainage ditches and standing waterbodies play an important role. The area is influenced from both agricultural activities in the west and south and the presence of the large settlement of Scunthorpe in the east and north east. Recreation areas and wildlife habitats common throughout the areas of open water and woodland combine with large open arable fields to create a distinct transitional landscape between the steeper scarp slopes and the flat open Trent Levels. Although there are no settlements within the area, there are scattered farms and urban fringe land uses including a sewage works, retail developments, a mobile home park, fishing lakes, garden centres and suchlike.

Flat Open Remote Farmland – Crowle Common, Dirtiness Levels, Eastoft Carr



Key Characteristics

- i) An open area of mostly large arable fields, offering expansive views across a low-lying, level landscape with tree and hedge cover almost completely absent over much of the landscape.
- ii) The woodland of Crowle Waste or Moors turbarry landscape to the west and the settlement of Crowle in the south east offer some enclosure to views in these directions.
- iii) The landscape has a distinct feeling of remoteness. Only in the peripheral areas of Crowle does the landscape begin to become more enclosed and intimate.
- iv) Areas of the medieval strip farming system, forming part of the Moorland Allotments (known as the Crowle Ribbons) can be seen in areas surrounding Crowle and Crowle Common. This farming system in which areas of former peat extraction were converted to strip farming is associated with the edge of raised mires (in this case Crowle Waste or Moors) and results in a characteristic landscape.
- v) Elsewhere the landscape has been subject to early and recent enclosure, but has suffered of hedgerow removal, mainly due to the intensification of agricultural practice with the result that fields lack boundary definition.
- vi) In the south of the local landscape type tree cover is limited to small fragmented copses with associated unmanaged hedgerows and intermittent tree cover.
- vii) Characteristic well-maintained drainage ditches follow the line of roads and form intricate networks throughout the fields, but do not have a strong visual presence.
- viii) There are very few roads crossing the area, adding to the remote character, only a few

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

tracks cross the open fields offering limited access.

- ix) A water treatment works and large prefabricated agro-industrial barns are found in the areas surrounding Crowle. Some tree planting (often pine) has been used to screen these structures, however they still combine with the backdrop of the predominantly modern settlement to create visually intrusive features.

- x) Telegraph poles and farmsteads with associated tree planting, add height to the low-lying landscape in which horizontal elements tend to dominate.

Geographic Location

The diffused eastern boundary roughly follows the route of the A161 until meeting Crowle where it follows the settlement's western edge. In the west the area is defined by the North Lincolnshire boundary. The area extends south to a further weakly defined boundary which merges gradually into Flat Drained Treed Farmland directly north of the A18. The majority of the area takes in the land of the Crowle Waste or Moors and Crowle Common.

Influences

This flat open landscape of laminated clays and alluvial deposits boast rich and fertile soils, which have benefited in the past from the agricultural influences of warping and intensive draining. The field system of moorland allotments has created a characteristic landscape to the edge of the raised mire areas. Agricultural intensification has led to significant hedgerow loss. Lacking in any distinguishable boundary or structural characteristics, the landscape is influenced by the wooded raised mire of Crowle Waste or Moors to the west, which has significant conservation value.

TRENT LEVELS

PART 2: LANDSCAPE STRATEGY AND GUIDELINES

The overall strategy for the Trent levels is one of enhancement to repair and restore features that have become lost to agricultural intensification. The historic landscapes of the Isle of Axholme and Crowle lowlands require careful protection.

Flat Drained Treed Farmland – Carrhouse, Eastoft, Sandtoft, Westwoodside

Landscape Strategy:

Seek to locally enhance the subtle structure of this farmed landscape by strengthening existing hedgerow and tree planting without damaging the generally open character.

Landscape Guidelines:

Refer to Axholme area historic landscape character zones drawing to determine appropriate approach in detail.

Ensure that continual farming intensification does not further destroy landscape structure; particular attention should be paid to the areas of moorland allotments, early enclosed land and turbaries.

Restrict insensitive development within turbarly landscapes and encourage redevelopment of redundant buildings. Conserve turbarly cottages. Investigate water level management of turbaries and other remnant moorland areas, especially at Haxey.

Protect the distinctive features of small areas of moorland allotments, including hedges and ditches and field pattern.

Seek to enhance and conserve existing landscape features such as hedgerows, small areas of woodland cover, field drainage ditches etc. without damaging the loosely open character.

Hedgerow planting is not a dominant structural element of this landscape, however where present should be protected and in many cases strengthened. It is important that remaining boundary hedges are conserved, especially zone boundary hedges (Ref; Keith Miller Report), in order to reflect the difference between the character of the medieval open fields, Early Enclosed Land and Recently Enclosed Land, whose characteristics have tended to loose distinctiveness over the last 50 years.

Tree planting should be restricted to areas of existing cover and to areas adjacent to settlements.

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

Planting of inappropriate species should be actively discouraged. Many areas of boundary tree planting lack interspersed shrub cover, which would add visual diversity and greater wildlife potential.

Limited new woodland planting should reflect existing patterns of cover, encouraging native woodland species. Woodland planting should be targeted towards areas surrounding large farmsteads and industrial landscapes, particularly the Sandtoft Airfield site in the north of the area. Small areas of woodland cover should aim to further integrate built development whilst maintaining open views.

Existing long established woodlands require selective felling and restocking to encourage a more diverse range of species of varying age.

Where possible the development of farm buildings and agro-industrial barns should be confined to existing farmstead areas, taking on the local vernacular and suitably landscaped into their setting.

Remaining areas of ecological value, including Epworth Turbary, Haxey Turbary and areas to the south west, should be protected and managed. Ecological value of dikes and watercourses could be improved through management.

The distinctive character of rural roads, often straight and flanked by well-maintained drainage ditches, should be conserved and maintained.

Flat Drained Farmland – Althorpe, Amcotts, East and West Butterwick, Owston Ferry

Landscape Strategy:

Enhance the remaining landscape structure, ensuring that future developments in farming practice do not continue to weaken the area's character, whilst conserving pockets of riverside strip farming. Where possible enhance wildlife potential.

Landscape Guidelines:

Refer to Axholme area historic landscape character zones drawing to determine appropriate approach in detail.

Ensure that continual farming intensification does not further destroy landscape structure; particular attention should be paid to the areas of riverside strip farming and early enclosed land.

In places hedgerow and occasional tree planting should be encouraged to reinforce existing landscape structure without damaging the open characteristics. Smaller areas of tree planting should be targeted towards farmstead areas softening their presence in the landscape, reflecting the pattern of linear shelterbelts already common to the area. Planting is also appropriate around settlements with the exception of riverside strip farming areas.

New hedgerow planting should look to reinstate historic field boundaries in areas where hedgerow removal is still in evidence. In particular, historic landscape zone boundaries should be reinstated to

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

highlight the differences between medieval strip farming, Early Enclosed Land and Recently Enclosed Land.

Surviving areas of riverside strip farming systems should be preserved in tact and protected from inappropriate development. In such areas tree and hedgerow planting is inappropriate unless it is to reinforce zone boundary characteristics.

Any new planting should reflect existing in species, size, and regularity to create consistency throughout the character area. Planting of inappropriate species within historic landscape areas should be actively discouraged.

New built development within the open countryside should be sited within existing farmstead and agro-industrial areas, reflecting the local vernacular and being integrated with the surrounding area by a competent landscape enhancement scheme.

Tree planting similar in size and density to the surrounding area should be encouraged along the base of the M180 embankment to reduce the impact of this visually intrusive engineering structure.

Avoid hedgerow planting along roadside areas, as this would be detrimental to the landscape's open character. There is evidence of such planting south of Amcotts. Intermittent roadside tree planting in existence north of Amcotts is a more appropriate use of planting that will enhance the landscape structure without damaging its character.

Where possible areas of riverbank and peripheral rough grazing should be managed and planted to encourage wildlife and ecological potential. Ensure maintenance and survival of linear drainage ditches and dikes. Where possible a diverse range of emergent plant species should be encouraged to create new and important ecological and wildlife habitats.

Open Island Farmland – Belton, Epworth, Haxey, Upperthorpe

Landscape Strategy:

The strategy for this local landscape type is one of conservation of the remaining medieval open fields (the last remaining landscape scale example of this nationally rare landscape type) and enhancement of enclosure pattern within the Early Enclosed Land zone to restore the distinction and transition zone between the Isle and surrounding levels.

Landscape Guidelines:

The medieval strip system farming areas common to the settlements on the elevated land of the Isle of Axholme are of cultural and heritage importance. Their presence should be conserved and enhanced so as to

- i) Retain open character by avoiding development and enclosure.

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

- ii) Enhance and restore historically important hedges along zone boundaries.
- iii) Encourage retention and restoration of strip farming through linear cropping, crop variability between strips and differential strip orientation.
- iv) Maintain distinct network of roads, lanes and paths, which have not been rationalised by enclosure.
- v) New tree planting should be encouraged to further assimilate settlements with the surrounding landscape, without damaging the character of the historically important farmland areas.

Shelterbelt tree planting is a common and striking landscape feature in this area. Where possible indicative plant species should be used in the future areas of planting and if possible shelterbelts should be replanted where less appropriate species have been used in the past, for example the evergreen planting belts in the north of the area.

Where possible historic hedgerow boundaries should be reinstated and careful attention should be paid to the correct use of boundary materials in the strip farming areas so not to damage historical value.

In areas of open, intensively farmed agricultural land hedgerows should be reinforced and replanted where there is evidence of removal. Small areas of woodland cover require thinning and replanting of native species to improve age and species diversity.

It is vital that the small percentage of ecologically important areas are both conserved and protected.

Areas of minerals extraction should remain confined to low-lying land with strategic planting blocks reducing visual impacts from elevated ground.

It is important to conserve the pattern and structure of these early settlements, ensuring new development is well sited and use of materials follow local vernacular. Where possible the introduction of new agricultural buildings should be restricted to lower lying areas, concentrated around existing farmstead curtilages.

Industrial Landscape – Burringham, Gunness, Keadby

Landscape Strategy:

Aim to minimise the continual development of this industrial area and reduce the existing impacts on the surrounding landscape through enhancement of the peripheral areas.

Landscape Guidelines:

Efforts should seek to contain this area; any new industrial developments should be suitably sited to minimise impact, both visual and environmental on the surrounding landscape. New industrial constructions should be built from light materials that dissipate with backdrop over distant views.

Seek to minimise immediate impacts of industrial development by use of mitigation planting close to the development; mitigation of wider impacts may damage open character. New planting should look to screen components built from heavy and visually intrusive materials.

Tree planting should be encouraged around settlements to improve their eventual assimilation with the surrounding landscape. Inappropriate planting should be actively discouraged.

Flat Wooded Farmland – Mosswood Grange

Landscape Strategy:

Enhance the existing landscape components of this semi-enclosed area of arable farmland, parkland and village fringe.

Landscape Guidelines:

Enhance existing structure of farmland through the replacement of lost hedgerow planting and the management and reinforcement of existing tree and hedgerow cover.

Protect the fabric of the historic landscape of Hirst Priory and Temple Bellwood parkland landscapes, including buildings, garden features, planting and any features that predate the parkland, which make a strong contribution to local landscape character.

Tree lined avenues are a common feature of the roads surrounding Crowle. Efforts should be made to maintain and replant and infill areas of lost roadside tree planting further enhancing the strong linear planting features of this area.

Promote the management and restructure of excessively even aged woodland cover. Thinning and restocking of native species should seek to improve habitat diversity and shrub cover.

New woodland planting should be characteristic of existing areas in size, shape and species creating consistent landscape character.

Planting of inappropriate species should be discouraged and where possible replaced by native deciduous tree planting that will create a softer less intrusive visual barrier characteristic of surrounding areas of woodland planting.

New industrial and agricultural development should be integrated into the surrounding landscape using a competent planting scheme.

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

Ensure the protection and long term survival of the remaining areas of ecological and nature conservation value. Where possible maintain field drainage ditches to encourage the development of emergent and other plant species where ditches run alongside woodland areas, creating a diverse habitat for nature conservation.

Wooded Springline Farmland – West of Scunthorpe

Landscape Strategy:

Create a balance between the elements of settlement, recreation, wildlife protection and intensive arable crop farming all found in this small but active area, whilst enhancing the landscape structure.

Landscape Guidelines:

Enhance and conserve the balance between thick woodland cover and open arable fields with limited boundary tree and hedgerow planting.

The predominantly open structure of the fields are similar to those in the floodplain landscape; limited planting should be encouraged to reinstate hedgerows and areas of field tree planting without being detrimental to the area's open character.

Existing woodland requires selective thinning and restocking to improve diversity of age, species structure.

Local species should be planted in new woodland areas to provide consistency with surrounding landscape.

Smaller areas of tree planting should be targeted around agro-industrial farm complexes and small pockets of industry softening their appearance in the surrounding landscape.

Conserve the well-maintained drainage ditches following the rectilinear field structure. Particularly in areas adjacent to woodland cover, emergent plant species should be encouraged adding ecological and wildlife diversity to this intensively farmed area.

It is vital that the few remaining areas of ecological and wildlife importance are both conserved and maintained for short term survival and long term prosperity.

Tree planting should be encouraged along the base of the engineered embankments of the M180; planting areas should replicate existing tree cover to assist integration of the road whilst lowering the visual impact of the major transport corridor.

Areas of open water require good management to create a balance between wildlife and recreation requirements and ecological development.

Attention should be paid to the urban fringe areas to the west of the area. Areas of woodland, heath and scrub require strict management for public recreation and to stop urban littering and degradation already in existence.

Any further development of caravan sites should be situated within thicker woodland areas to reduce impacts on surrounding landscape.

Flat Open Remote Farmland – Crowle Common, Dirtiness Levels, Eastoft Carr

Landscape Strategy:

Ensure that the open character remains in tact and historic features are protected whilst efforts are made to develop and enhance the landscape structure.

Landscape Guidelines:

Refer to Axholme area historic landscape character zones drawing to determine appropriate approach in detail.

Ensure that continual farming intensification does not further destroy landscape structure; particular attention should be paid to the areas of moorland allotments, early enclosed land and turbaries.

Areas of moorland allotments, early enclosed land and turbaries should be conserved and protected from insensitive development.

Investigate water level management of turbaries and remnant moorland areas to ensure their survival.

New hedgerow planting should look to reinstate historic field boundaries, in particular zone boundaries, in areas where hedgerow removal is still in evidence. Farmland surrounding the north west of Crowle shows the distinct pattern of the moorland allotment medieval strip farming system; this important landscape feature should be conserved and reinstated where possible adding diversity to the surrounding large open fields structure.

Tree planting should be encouraged around farmstead areas and the large settlement of Crowle to the south to improve their integration into the landscape.

Strict controls should be placed on the future development of industrial complexes and modern agricultural buildings particularly in the peripheral areas of Crowle. Planting replicating that of the surrounding area using native species should be used to soften impacts.

Small pockets of non-native tree species are apparent around the Crowle area, creating distinctive landscape features, but are sometimes inappropriate. Such planting has been used often to screen new development; the planting of native species would help to soften the impact of such tree cover looking towards their removal in the long term.

North Lincolnshire Council
North Lincolnshire Landscape Character Assessment and Guidelines

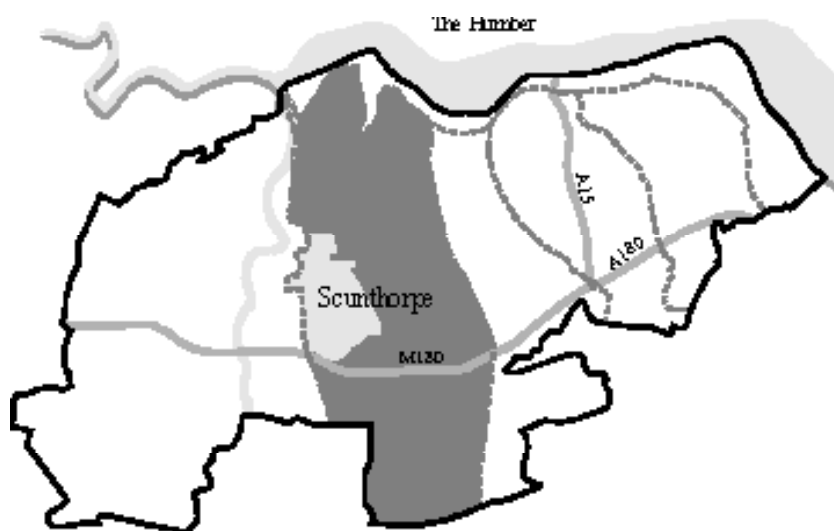
The characteristic well-maintained drainage ditches of this landscape should be conserved and enhanced for ecological benefit.

The pattern of small tracks crossing this area should be conserved and attempts to improve such routes should be resisted where it would affect their character.

Ecologically important areas should be conserved and protected.

LINCOLNSHIRE EDGE

PART 1: LANDSCAPE CHARACTER



Key Characteristics

- i) Large scale escarpment landscape, mainly arable, with two locally distinctive north-south scarp slopes.
- ii) Complex landscape includes arable farmland, scarp slopes, urbanisation and dereliction in the Scunthorpe area, and the coversands area of heath, blown sand habitats and conifer woods
- iii) Farmland characterised by open, rectilinear fields and few boundaries. Where enclosure is still present, a mixture of discontinuous hedgerows, shelter belts and trees.
- iv) The historically significant Roman road, Ermine Street follows a north-south route, to the east of the area.

Geographic Location

The Lincolnshire Edge within North Lincolnshire forms part of a regional landscape character area that extends from Whitton at the Humber Estuary in the north to the North Lincolnshire boundary, south of Kirton in Lindsey and is approximately 9km wide. The western boundary is clearly defined by the toe of the western north-south escarpment rising out of the Trent Valley lowlands. The eastern boundary broadly follows the western edge of the Ancholme Valley floodplain. It is an elevated area, dominated by Scunthorpe and its associated ironstone workings, transport corridors and peripheral villages.

Physical Influences

The entire area is underlain at depth by the Triassic mudstones, which continue westwards under the

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

Trent and Ouse lowlands. However, the first, western escarpment rising out of the Trent floodplain is formed of Scunthorpe mudstones containing some ironstone and limestones. The second escarpment, further east, is formed of Coleby mudstones with the economically important Pecton ironstones, the exploitation of which led to the expansion of Scunthorpe during the latter part of the Industrial Revolution. This distinctive topographical feature is known as the Lincoln Edge, with its western secondary scarp slope known locally as 'The Cliff'. These Jurassic mudstones and limestones tend to be only lightly covered by glacial and fluvio-glacially derived drift and generally give rise to fertile (Grade 2) brown earth soils which lend themselves to arable cropping, although pockets of poorer clay drift and blown sand support only pasture.

Important elements of the drift geology are the coversands, i.e. blown sands. These occur in various small pockets throughout, but are most marked east of Scunthorpe. The free-draining nature of the sandy brown earths derived from these sands render repeated arable cropping difficult without high inputs of fertiliser. As a result there has been extensive planting with Scots pine. This has allowed natural regeneration of birch and subsequently oak to occur in some heathland areas. These areas have also seen some set-aside of arable and pasture, with consequent colonisation by species tolerant of drought. In certain areas heathy vegetation persists, particularly at Risby Warren and to the north of Broughton.

Historic and Cultural Influences

The Lincolnshire Edge has seen recurrent patterns of settlement since prehistory. However, the Romans were the first civilisation to make a very visible impact on the landscape. The Humber Estuary was a northern frontier of the Roman Empire for some 20 years (AD 50 to 70), before a northward push was made. This led to the development of Ermine Street (now the B1207) which carried trade to the ferry at Winteringham. This ferry point on the Humber Estuary has been an important crossing since pre-Roman times and indeed the discovery of a number of craft, many still in good condition, mostly at North Ferriby, has resulted in a re-interpretation of the area's pre-history. The 'Ferriby Crafts' have an international significance and provide further evidence as to the historical importance of the Lincoln Edge as a vital north-south route way.

The next visible impact came with medieval farming and expansion of villages on the Edge. The practice of warrening was established in late medieval times on the sandy soils, e.g. at Broughton and Risby Warren. The principal period of enclosure came in the mid to late 18th century which resulted in extensive planting of the thorn hedgerows that are present throughout the Edge landscape today, although there has been much loss and neglect of hedgerows in areas of open and elevated farmland.

The most significant landscape change came with the Industrial Revolution and the economic need for ironstone. This was extensively quarried north of Scunthorpe, and the town rapidly expanded with the growth of the Ironworks and the amalgamation of its five constituent villages. Scunthorpe thus became the centre of the transport and power generation infrastructure which today is evident principally as a west-east transport corridor following the A18/M180, the parallel railway corridor to the north, and the electricity transmission pylons extending eastwards from the Keadby Power Station serving both residential and large scale industrial complexes in Scunthorpe.

With the gradual demise of the iron and steel industry came a period of extensive dereliction, the scars of which are still evident today, particularly north of Scunthorpe. The local economy has been slowly regenerating by use of simplified planning controls and industrial zoning, but this has not been without impact on the landscape, in the form of large structures with little relationship to the wider rural landscape.

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

As well as the physical impact of the ironstone quarries (or gulleys), other minerals have been extracted, e.g. sands and gravels, from fluvio-glacial deposits, local pockets of alluvium, blown sand and limestone from deeper quarries.

Away from Scunthorpe itself, rural influences are quickly re-asserted, with most farmland found on the elevated easterly dip slopes of the Jurassic limestones and to the south of Scunthorpe and the M180.

Parkland and estate landscapes are poorly represented in the Lincolnshire Edge Landscape Character Area, with the exception of Normanby where a Hall forms the focus of the creation of a Country Park with a Farm Museum.

An equally visible human influence was the establishment, largely post-war, of coniferous plantations on the blown sand deposits. This probably reduced the extent of heathland in these areas to below ecologically viable limits, although some heathy fauna persists on remnant heaths and along road verges, and birch and oak are regenerating naturally.

Settlement and Buildings

Scunthorpe is the dominant town in this area. It developed as a town in just a few decades during the second half of the 19th century. Due to its rapid development it has a rigid morphology dominated by a geometric arrangement of streets, buildings and railways, bearing little relationship with the surrounding countryside, and sits as an urban-industrial island in a predominantly rural region.

The hinterland of Scunthorpe is highly intrusive with industrial, commercial and residential activity combining to give a hard edge to the urban fringe with few mitigating features.

Beyond Scunthorpe the pattern of settlements is more traditional and relates to the agricultural evolution of the region. Villages such as Burton upon Stather, Messingham and Kirton in Lindsey are nucleated in arrangement and have a strong local character. Parish churches, usually with a tower, combine with soft red brick and pantile houses and cottages and intimate street arrangements to create attractive villages. Most villages are tight-knit and nucleated, arranged around street patterns that have difficulty coping with modern traffic demands. Many of these villages today operate as dormitory villages to Scunthorpe.

Much of the attraction of established rural villages derives from the mix of architectural styles they demonstrate, where styles, sizes, arrangements and details vary.

Traditional building materials include limestone with red brick detailing which pre-dates the extensive use of red Barton clay for bricks. However, from the mid 19th century red brick and pantiles became dominant. Village expansion around Scunthorpe continued through the 20th century using a variety of styles, although more recent development has rigidly adhered to the red brick and pantile vernacular.

Landcover and Wildlife

In the south of the Lincolnshire Edge Landscape Character Area, the traditional and well-hedged landscape remains relatively unaltered by agricultural intensification. However, across much of the rest of the area, hedgerow enclosure has been extensively lost and, where present, hedges are often discontinuous, poorly managed and include few trees.

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

Much of the area close to Scunthorpe is blighted by current and former industrial activity. The former rural landscape structure has been lost and the present appearance is degraded and unattractive. However, in the more rural landscape away from Scunthorpe the scenery has been degraded by agricultural intensification. Despite this, woodland blocks remain locally prominent landscape elements.

East of Scunthorpe lies the largest tract of continuous woodland in North Lincolnshire. These woods concentrated on Coversand deposits containing natural, semi-natural and planted woodland blocks and heathland, are visually, commercially and ecologically important. The best example is at Risby Warren where an exceptional inland dune system persists. Acidic and calcareous grassland, heath, scrub and planted conifers occur across these dunes. Richer deeper soils are bracken-dominated. The overall effect is of a mosaic of vegetation with occasional blowouts of exposed sand. Characteristic species include sand sedge (*Carex arenaria*) and buck's horn plantain (*Plantago coronopus*) on the exposed sand, grading into acidic grassland/ heath with heather (*Calluna vulgaris*), bent (*Agrostis capillaris*) and sheep's fescue (*Festuca ovina*).

On the exposed limestone bedrock are species-rich calcareous grassland communities e.g. tor-grass (*Brachypodium pinnatum*) and carline thistle (*Carlina vulgaris*). This calcareous mix is found both extensively in heathy woodland and more localised in other landscape types such as the elevated and open farmland, where underlying solid Jurassic limestone is exposed, e.g. in quarries. Where flushes have occurred around base-rich openings on the escarpment, a rich flora has developed on the wooded escarpment north of Scunthorpe.

Secondary scrub has invaded various landscape types mostly on abandoned or unmanaged land. On the blown sands of the heathy woodland, the scrub is birch-dominated (*Betula pubescens*) with some sycamore, oak and hawthorn. On the exposed and abandoned substrates of the ironstone workings, a similar scrub has developed but with a higher proportion of willows (*Salix caprea* and *Salix cinerea*) and silver birch (*Betula pendula*).

There is little ancient woodland in the area, due to extensive agricultural improvements or replanting in the heathy woodland, small pockets of oak and alder woodland persist in undrained flushes and seepage, e.g. Broughton Alder Wood SSSI. On clay overlying limestone, dominant tree species reflect the higher base content of soils, e.g. ash, sycamore, field maple and wych elm. These species are found in longer-standing hedgerows over most of the elevated and open farmlands.

Some of the more important species of fauna associated with the area are nightjars, woodlarks and some rare invertebrates, generally restricted to heathy woodland situations.

The Changing Countryside

The developments of the 20th century have had a considerable impact on the landscape character of the Lincolnshire Edge and some areas, particularly adjacent to Scunthorpe, have been seriously blighted by industrial activity. In particular mineral exploitation has led to the creation of numerous open cast quarries, locally known as ironstone gullets which are located along the escarpment slope to the north east of Scunthorpe. These quarries are undergoing progressive restoration extending in a northerly direction.

Although Scunthorpe is still one of the nation's primary iron and steel producers, heavy industry is in decline. Its industrial economy base has shrunk leaving many former industrial sites derelict and empty and further blighting the surrounding area. The area to the north east and east of Scunthorpe is particularly unattractive for this reason.

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

Outside Scunthorpe, much of the scenery remains in productive agricultural use. It is a rural landscape combining woodlands, hedgerows, villages, trees and lanes. However, agricultural intensification creating larger fields has caused the significant removal of hedgerows and grassland. Existing woodlands and shelterbelts are often neglected, although recreational pressures have not yet had a significant impact on the landscape.

In recent years, the Countryside Stewardship Scheme has enabled extensive boundary restoration in the heathland areas around Broughton and improvement of facilities for recreation and public access.

Future pressures for change may include:

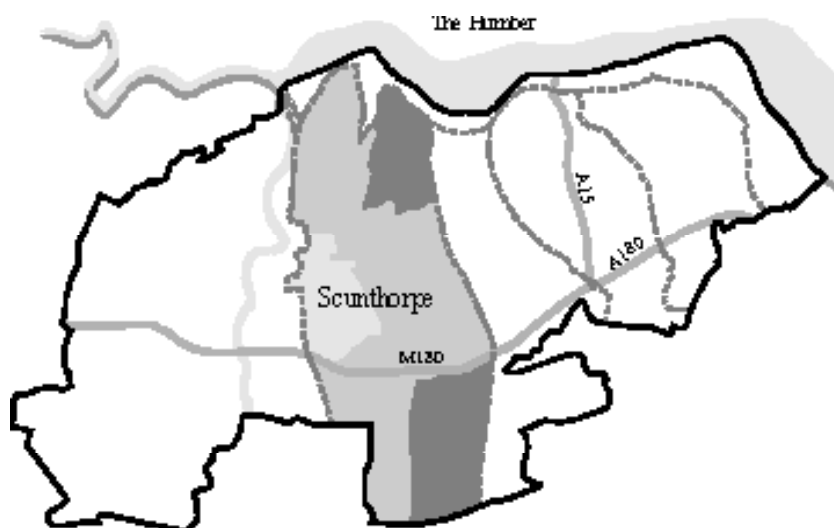
- i) Further growth of Scunthorpe and Bottesford, Broughton, Kirton in Lindsey, Messingham, Winterton, with pressure on the urban fringe of Scunthorpe for development and recreation.
- ii) Industrial growth to the south east of Scunthorpe, north Scunthorpe, north east Scunthorpe, and Flixborough industrial estate.
- iii) Construction of Messingham by-pass and grade separated junction at M180 / A159 junction and Scunthorpe southern access route.
- iv) Development of Thealby Gullet, Winterton Lagoon and Yorkshire East Gullet (north) for informal and quiet water-based recreation; development of motorised recreational activities south of Conesby quarry.
- iv) Encouragement of new permissive access under the Countryside Stewardship Scheme. The 'Right to Roam' movement may lead to pressure on heathland habitats.
- v) Landscape enhancement proposed for the escarpment north west of Scunthorpe, Conesby Quarry, Sawcliffe, Bottesford Beck and urban areas, enhancement of boundaries of Winterton, Messingham and Broughton.
- vi) Continued landfilling at Conesby Gullet, Crosby Warren (south), Roxby Gullet, Winterton Gullet and Yarborough Gullet; and future tipping at Dragonby North and Dragonby and Santon underground mines.
- vii) Possible future extraction of ironstone east of Yarborough and oil at Crosby Warren.
- viii) Possible further localised subsidence and instability within ironstone areas.
- ix) Future sand and gravel extraction at Flixborough and silica sand extraction at Messingham and Manton.
- x) Further pressure on heathland due to completion of groundwater levels, protection and enhancement of lowland heath, field boundary features, wet grassland and riparian habitats, and old meadows and pastures and associated historic features, under the Countryside Stewardship Scheme.

Visual Characteristics of the Landscape

The Lincolnshire Edge is a diverse, complex landscape resulting in a number of local landscape types evident. Visual characteristics common are elevated terrain, gently dipping to the east; openness of views; dominance of arable farmland outside of Scunthorpe; heathy woodland associated with coversands; and the two predominantly wooded scarp slopes running north-south through the area.

Most of the landscape is categorised as **Elevated Open Farmland** with long distance views to the east as far as the Humber Bridge and beyond. Smaller areas are described as **Elevated Wooded Farmland, Open Undulating Farmland and Wooded Undulating Farmland** depending on topography and woodland cover. Two scarp slopes provide local variation, categorised as **Steep Wooded Scarp Slope, Wooded Scarp Slope, Open Farmed Scarp Slope and by areas of Heathy Woodland**. Contrast is evident at the north eastern perimeter of Scunthorpe with significant areas of **Despoiled Landscape** and **Industrial Landscape** and a small area of **Farmed Urban Fringe**.

Elevated Open Farmland – Hibaldstow, Redbourne, Winterton



Key Characteristics

- i) Exposed, open landscape with gently undulating terrain dipping to the east.
- ii) Extensive views to the east emphasised by open character of farmland.
- iii) Arable farmland with large scale, open fields.
- iv) Lack of field boundaries due to severe hedgerow loss in places.
- v) Limited tree cover and intensively clipped hedgerow remnants give a 'fragmented' feel to the area, further exacerbated by its windswept look and exposed nature.
- vi) Local settlements contain a mixture of local building materials and styles deriving from a diversity of building periods.
- vii) The Roman road, Ermine Street, is a prominent feature within the landscape with its associated ancient settlements.

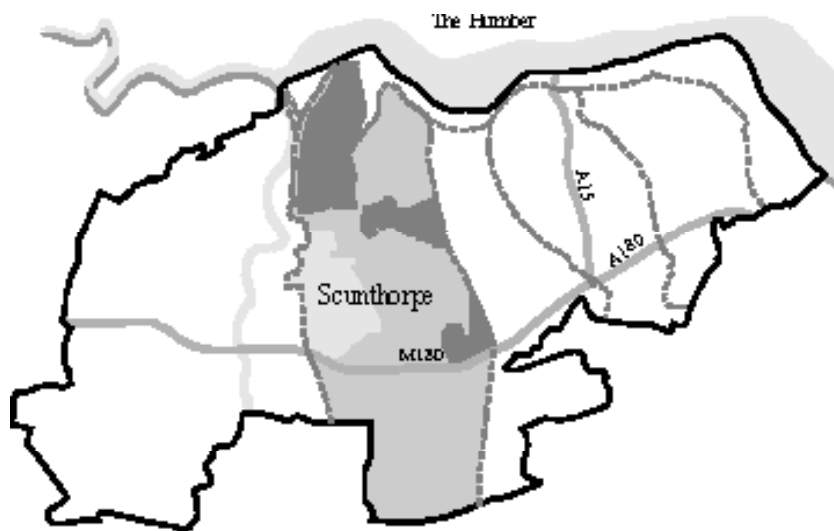
Geographic Location

Geographically this is the largest local landscape type extending north east and south east of Scunthorpe, to the eastern boundary of the Lincolnshire Edge. There are two dip slope areas. One lies to the north-east, centred around Winterton and dipping into the Vale of Ancholme, a marginally larger area lies in the south east corner of the Lincolnshire Edge Landscape Character Area between the edge of Scawby in the north and the periphery of Kirton in Lindsey in the south.

Influences

This gently dipping plateau is derived from Middle Jurassic Lincolnshire limestone overlain by clay and silt with pockets of sand and gravel. Generally Grade 2 agricultural land, the soils lend themselves to extensive arable farming. However, agricultural intensification has had a significant impact on the landscape contributing to the existing pattern of large scale fields and a lack of field boundaries.

Elevated Wooded Farmland – East of Burton upon Stather and Alkborough, North of Scawby, Appleby



Key Characteristics

- i) Rolling upland landscape consisting of mainly arable farmland with a strong sense of unity.
- ii) Large scale fields well contained by deciduous and coniferous woodland blocks and hedgerows with trees. However, some evidence of hedgerow loss through field enlargement.
- iii) Extensive views to the east and north west over the River Trent and Humber Estuary.
- iv) Settlements have a strong, rural character with use of traditional building materials, predominantly local brick and limestone with both pantile and slate roofs.
- v) Conservation Areas designated in Alkborough, Burton upon Stather and Normanby.
- vi) Local interest and contrast at Normanby Hall Country Park which is a site of Nature Conservation Interest and Scawby Park.

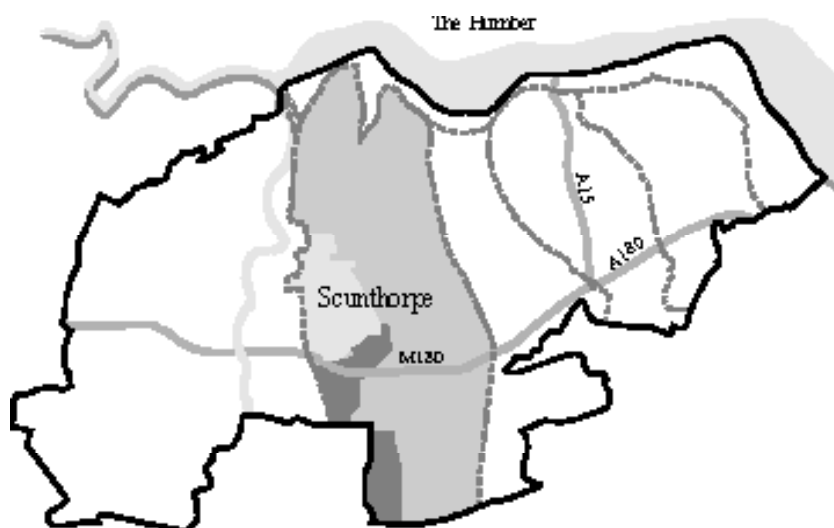
Geographic Location

The largest tract lies to the north of Scunthorpe occupying the dip slope of the more westerly escarpment. Another area extends from High Risby and gently dips to Appleby in the east and the third area lies south of Broughton and encompasses Scawby Park, dipping towards Brigg and the Vale of Ancholme.

Influences

Formed on Scunthorpe mudstone with Frodingham ironstone and limestones, and overlain by coversands and glacial sand and gravel, these areas lie on the gently undulating dip slopes of the Lincolnshire Edge escarpments. These areas have fertile Grade 2 soils that are used for arable farming. Agricultural intensification has, however, led to some hedgerow loss through field enlargement, resulting in the large scale field pattern evident today.

Open Undulating Farmland – Messingham, Holme and West of Kirton in Lindsey



Key Characteristics

- i) Broad, gently undulating landscape, including a shallow scarp slope.
- ii) Mainly arable farmland with pasture areas and some evidence of farm diversification, e.g. pig farming, poultry farming.
- iii) Evidence of hedgerow loss giving rise to an overall lack of cohesive field boundaries.
- iv) Enclosure provided by shelterbelts, woodland copses and hedgerow remnants.
- v) Traditional farm buildings scattered throughout area.
- vi) Settlements consist of local stone and red brick mixed.
- vii) Evidence of ditches for land drainage purposes.

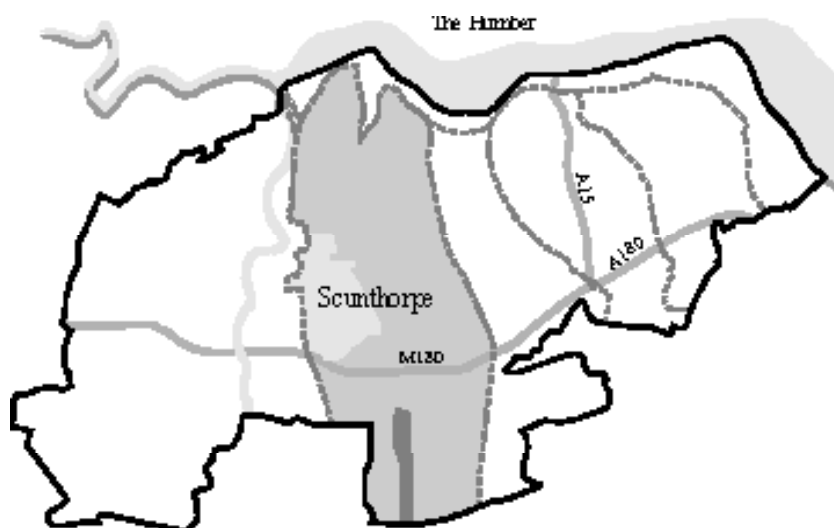
Geographic Location

This area lies in a large zone south east of Scunthorpe and is divided by the North Lincolnshire boundary in the south. One area encompasses Messingham with an indistinct eastern boundary that lies east of Holme and along the periphery of the Holme plantation. The most southerly area lies west of Kirton in Lindsey.

Influences

The area is based on Coleby mudstones with Marlstone rock and Pecton ironstone, and Scunthorpe mudstone with Frodingham ironstone and limestones, to produce a gently undulating landscape. Overlying sand and gravel give rise to poorer quality Grade 3 soils, which has led to some farm diversification.

Open Farmed Scarp Slope – North and South of Kirton in Lindsey



Key Characteristics

- i) Broadly sinuous, gently undulating scarp slope designated as an Area of High Landscape Value.
- ii) West facing slope intensively farmed with medium scale arable fields.
- iii) Lack of field boundaries due to hedgerow loss, but existing hedgerows are significant and well established.
- iv) Groups of trees and shelterbelts are a significant feature particularly at the top of the slope. Individual trees scattered amongst the fields.
- v) Ecological interest, with two SSSIs and a Site of Nature Conservation Interest.

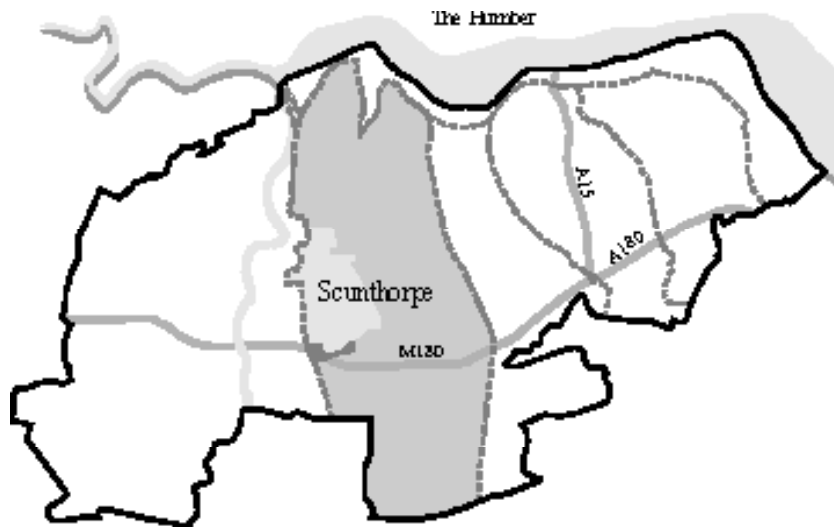
Geographic Location

This area lies along the easterly escarpment extending north of Kirton in Lindsey, as far as the hamlet of Manton.

Influences

At the top of the scarp slope the geology is Grantham Formation and Northampton sand and at the toe of the slope, Coleby mudstones, Marlstone rock and Pecton ironstone. Agricultural land of Grade 2/3 makes arable farming feasible on the west facing scarp slope.

Farmed Urban Fringe – South of Scunthorpe



Key Characteristics

- i) Farmed, flat landscape adjacent to urban conurbation dominated by associated urban elements such as pylons, roads and close range views of housing and industry.
- ii) Intimate scale landscape, with small fields scattered with derelict farm buildings and untidy sheds and fences.
- iii) Vegetation sparse, field boundaries defined by intermittent and overgrown hedgerows and scrubby trees.
- iv) Dominant elements and features are outweighed by complexity of landscape.

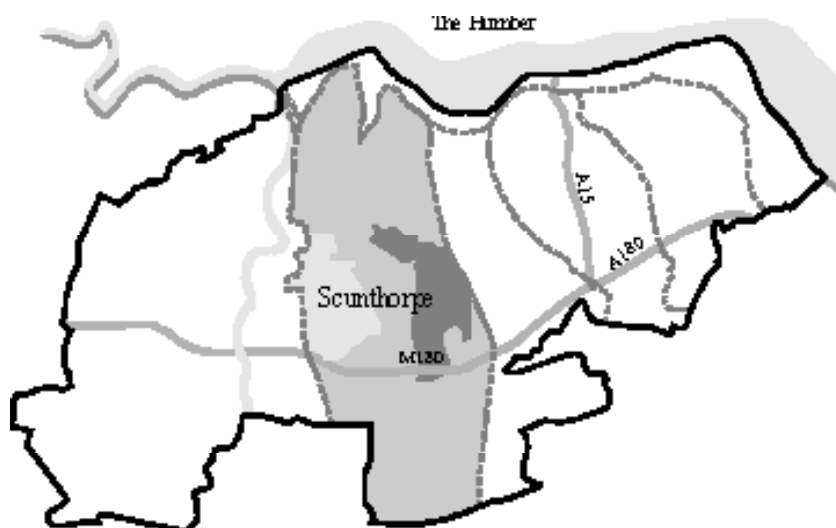
Geographic Location

This local landscape type occupies a small area immediately to the south of Scunthorpe and north of the M180.

Influences

This area lies on Scunthorpe mudstone with Grade 3 agricultural soils. Heavily influenced by its proximity to Scunthorpe, it marks the transition between urban conurbation and the nearby arable farmland, thereby containing elements of both areas.

Heathy Woodland – Risby Warren and Broughton



Key Characteristics

- i) Elevated, gently undulating landscape of deciduous and coniferous woodland containing areas of open scrub and heathland.
- ii) Attractive character, intimate and enclosed, within the woodland contrasting with more open heath areas.
- iii) Contains three SSSIs (Broughton Far Wood, Broughton Alder Wood and Risby Warren) and is designated as an Area of High Landscape Value. Ancient replanted woodland at Far Wood, West Wood and Spring Wood.
- iv) Views to the west towards Scunthorpe restricted by vegetation.
- v) Local historical interest provided by Ermine Street, a Roman road that bisects the woodland.

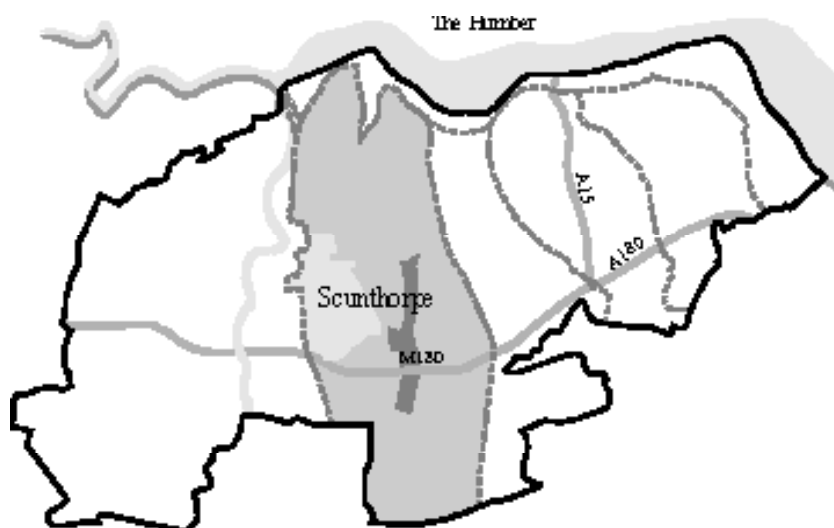
Geographic Location

A fairly large area lying to the east of Scunthorpe, reaching from Risby Warren in the north to Broughton and the M180 in the South.

Influences

Middle Jurassic Lincolnshire limestone with coversands or blown sand is an important element of the drift geology in this area of the Lincolnshire Edge Landscape Character Area. The sandy brown earths derived from these sands are relatively infertile without regular applications of fertiliser and are classified as Grade 3 Agricultural Land. There has been extensive planting with Scots pine and natural regeneration of birch and oak in areas of open heathland.

Wooded Scarp Slope – Manton, Raventhorpe and Santon



Key Characteristics

- i) Sinuous scarp slope overlain by coversands and designated as an Area of High Landscape Value.
- ii) West facing slopes are extensively wooded with small areas of arable farmland, pasture, scrub and rough grass.
- iii) Where vegetation is limited, views towards Scunthorpe are extensive, otherwise the landscape is well enclosed and of intimate scale.
- iv) Significant areas have been left to nature, resulting in mainly deciduous woodland with birch, pine, larch, oak, gorse and rhododendron.
- v) Ecologically important area, with three sites of Nature Conservation Interest.

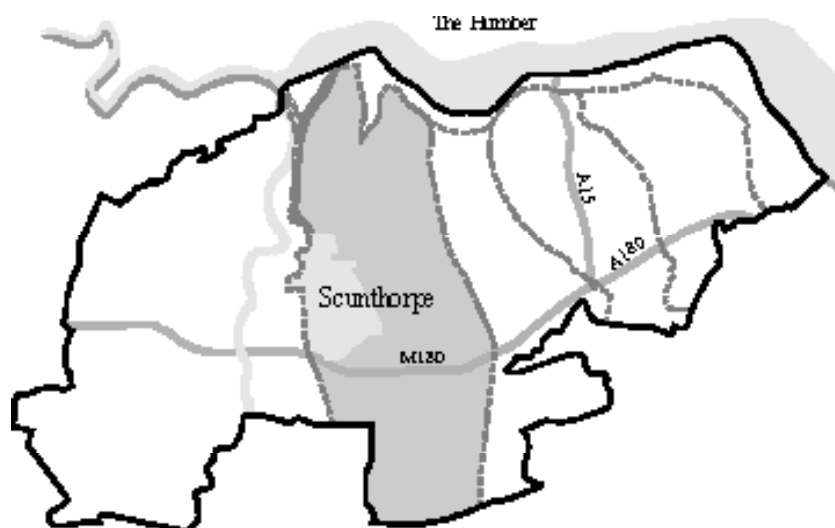
Geographic Location

This local landscape type lies to the east of Scunthorpe along part of the Lincoln Edge scarp slope.

Influences

This area is derived of the same geology as the Open Farmland Scarp Slope with generally poorer Grade 3 soils. As a result, little farming occurs with most of the slope face being extensively wooded.

Steep Wooded Scarp Slope – West of Burton upon Stather and Alkborough



Key Characteristics

- i) Prominent, steep scarp slope rising from vale lowlands.
- ii) Extensively wooded slope, west facing, interspersed with small areas of pasture, scrub and rough grass.
- iii) Long-ranging views across the Trent Lowlands from the top of the slope and where vegetation is more limited.
- iv) Landscape is generally of intimate scale and well enclosed by vegetation.
- v) Ecologically rich slope with a good range of species diversity and evidence of regenerating woodland and thicket.
- vi) Ancient semi-natural woodland at Burton Wood.
- vii) Settlement edges of Burton upon Stather and Alkborough provide visual interest where houses, interspersed with vegetation, cling to the top of the slope face.

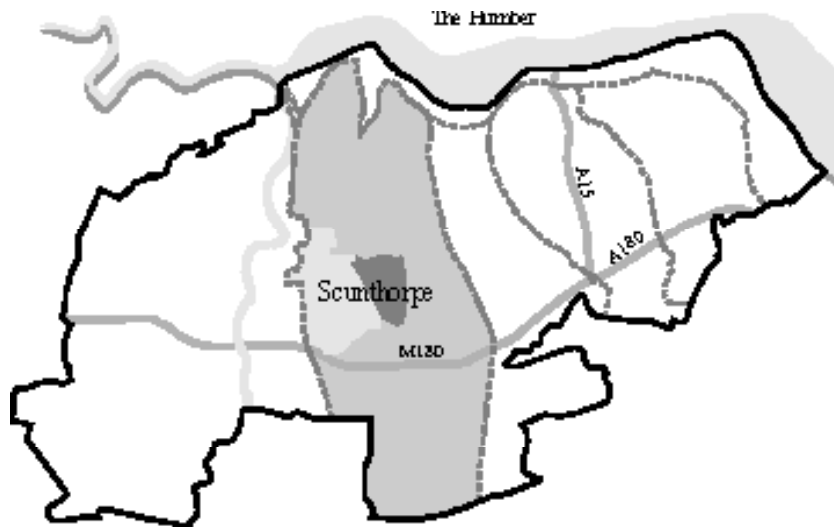
Geographic Location

This local landscape type extends northwards from Scunthorpe along the scarp slope known as 'The Cliff' above the River Trent to Whitton.

Influences

Formed from Scunthorpe mudstones containing some ironstone and limestone with coversands, giving rise to infertile soils of Grade 4 Agricultural Land Classification, which, along with the steepness of the slope, makes farming impossible. As a result, the slope face has been left to nature, undisturbed with areas of rough grass, scrub and woodland.

Industrial Landscape – Eastern Scunthorpe



Key Characteristics

- i) Flat, bleak, predominantly hard landscape overwhelmed by large scale industry and derelict land.
- ii) Areas of high enclosure provided by density and scale of industry, ranging to openness with views across expanses of derelict land.
- iii) Complex, chaotic character exaggerated by lack of cohesive structure and little, or insignificant landscape improvements. Area dominated by industry and associated infrastructure, i.e. roads, security fencing, electricity poles, etc.

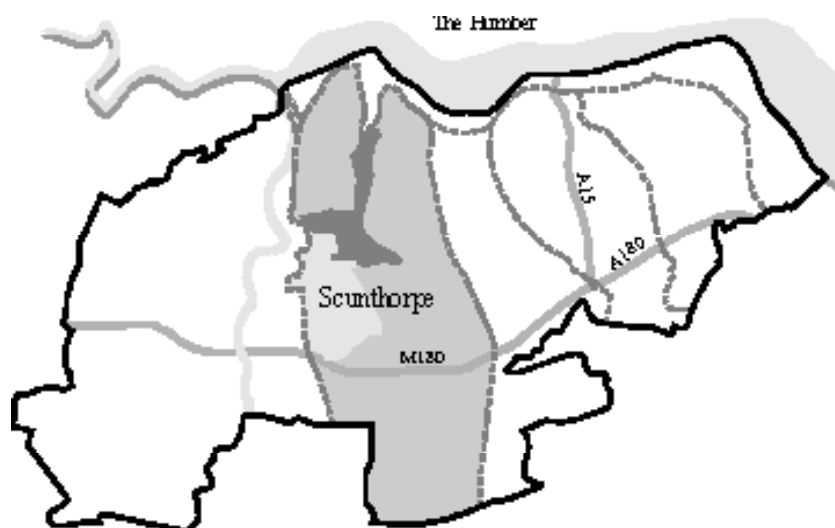
Geographic Location

This single zone occupies an enclave of active iron and steel industry immediately to the east of Scunthorpe.

Influences

The location of the Scunthorpe iron and steel works was determined by the availability of quarried ironstone, north of the town. The growth of the iron industry during the Industrial Revolution led to Scunthorpe becoming an industrial power generation and transport infrastructure centre. The subsequent demise of the iron and steel industry has resulted in the legacy of dereliction evident today.

Despoiled Landscape – North East Scunthorpe and Lincoln Edge



Key Characteristics

- i) A mixture of mostly reclaimed and some derelict land arising from the historically and economically important extraction of ironstone during the Victorian era.
- ii) Typically characterised by a mixture of reclaimed farmland with no distinguishing field boundaries and patches of regenerating woodland and scrub.
- iii) Local and ecological interest provided by a number of attractive waterbodies designated as Local Nature Reserves with recreational potential. Dominant species birch and willow.
- iv) Area dominated by large number of surrounding visually intrusive features such as adjacent industry and high rise blocks of flats on the edge of Scunthorpe, which have not been screened or integrated into the landscape.

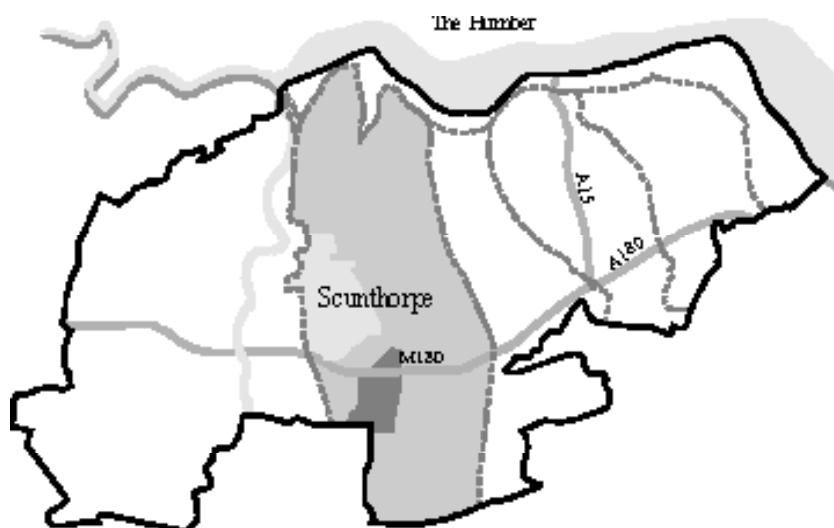
Geographic Location

This local landscape type occupies a broadly linear enclave of blighted former quarried landscape running northwards from Scunthorpe along the foot of the Lincoln Edge to Winterton.

Influences

This area is formed from Scunthorpe mudstone with Frodingham ironstone, which was quarried extensively for use in the iron and steel industry. As a result the area has been partially reclaimed and put back to farmland and heathland with significant areas of naturally regenerating scrub and woodland. Several of the quarries are still evident and have been left in a derelict state, providing access to ironstone and limestone deposits for geological study.

Wooded Undulating Farmland – East of Messingham



Key Characteristics

- i) Rolling, mainly arable farmland of open, rural character.
- ii) Enclosure of medium sized fields provided by mixed woodland blocks and shelterbelts.
- iii) Field boundaries defined by hedgerows, both maintained and overgrown with hedgerow trees. However, evidence of some loss and neglect in places due to field enlargement.
- iv) Evidence of farm diversification with presence of pig and poultry farms.
- v) Ecological interest, with three sites of Nature Conservation Interest within the area, one of which is the flooded sand and gravel extraction pits, to the south east of Messingham.

Geographic Location

A single zone lying at the foot of the southern reaches of the easterly Lincoln Edge escarpment and to the east of Messingham, to the south east of Scunthorpe.

Influences

Derived from Colby mudstones with Marlstone rock and Pecton ironstones and overlain by coversands leading soils of Grade 3 Classification. Although the area is predominantly arable farmland there is evidence of farm diversification e.g. pig and poultry farming. Pockets of sand and gravel have been quarried in the past, some of which have been reclaimed and form several ecologically significant waterbodies.

LINCOLNSHIRE EDGE

PART 2: LANDSCAPE STRATEGY AND GUIDELINES

Landscape Strategy:

The Lincolnshire Edge demonstrates the most discontinuous scenery of any Landscape Character Area in North Lincolnshire. While small pockets require conservation or creation of a new landscape, the principal landscape strategy should be enhancement of the landscape, which in many situations has become fragmented and impoverished through agricultural and industrial human exploitation.

1.78 Elevated Open Farmland - Hibaldstow, Redbourne, Winterton

Landscape Strategy:

This is an agricultural landscape that has experienced losses of traditional landscape elements, such as trees, hedges and woodland. Intensification in farm management has been the main cause with field enlargement and farm amalgamation. Landscape strategies should be employed which, whilst seeking to protect and restore remaining landscape elements, offer scope for landscape enhancement, principally through hedgerow renewal and management, combined with tree planting initiatives that include hedgerow trees and new woodland blocks.

Landscape Guidelines:

Seek to conserve the existing village distribution and character by limiting insensitive rural settlement expansion and inappropriate infill of open space by re-using existing redundant buildings and ensuring that new buildings complement the local character.

Seek to accommodate new structures in a 'valley context' to minimise skyline interruption and visual intrusions in an otherwise open landscape where views out to both the adjacent ridgelines and across the lower Ancholme Valley are important.

Encourage the protection and enhancement of any remnants of calcareous grassland, ancient woodland and natural spring-fed watercourses.

Seek to increase the percentage cover of woodland. New woodland should be of a geometric arrangement, acting as shelterbelts, wherever possible linked to established woodland blocks. Careful siting should seek to ensure that wider views are not lost but framed.

Encourage the retention of hedgerows in the landscape and introduce initiatives to replace discontinuous sections of hedgerow. Hedges should be managed regularly to ensure that their robust well-maintained structure is continued.

Trees introduced into hedgerows and the composition of new woodland should match those already represented in the area. Predominantly native broadleaved species such as ash, pedunculate oak and sycamore should be used, occasionally complemented by more exotic species such as bird cherry, hybrid larch and selected pines.

Seek to protect mature trees and shelterbelts occurring around rural settlements, particularly where they provide shelter and a sense of proportion and balance to the built environment. Where such landscape features are poorly represented, strategies should be initiated to seek their appropriate introduction.

Elevated Wooded Farmland – East of Burton upon Stather and Alkborough, North of Scawby, Appleby

Landscape Strategy:

Landscape guidelines should seek to protect and, where appropriate, locally enhance the existing rural character, by conservation and management of existing woodland and hedgerows.

Landscape Guidelines:

Seek to conserve village character and form by limiting insensitive expansion and excessive infill of open spaces. Existing buildings should be re-used, or traditional building materials utilised and local architectural styles followed.

Protect and manage existing woodland blocks and hedgerows with trees and re-establish hedgerows where loss is evident, in order to maintain the strong sense of unity across the area.

Conserve and enhance the contrasting effects of intimacy and enclosure through vegetation cover and open views due to the area's elevated position.

Protect Normanby Hall Country Park as a valuable recreational and ecological resource by developing a management strategy that allows the two objectives to co-exist without detriment to the other.

Open, Undulating Farmland – Messingham, Holme and West of Kirton in Lindsey

Landscape Strategy:

Seek to initiate policies of restoration and local enhancement in this agricultural lowland landscape of gently undulating terrain.

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

Landscape Guidelines:

The continuing trends of agricultural intensification, i.e. hedge removal and woodland loss, should be combated and strategies introduced to conserve and develop primary landscape elements such as these.

Throughout much of the area effects of agricultural intensification, such as field enlargement, fragmentation, loss of woodland are noticeable. Policies such as hedgerow renewal and repair; woodland planting and management; and grass verge management should be initiated to repair localised degradation of landscape structure. Existing hedgerows, woodland and hedgerow trees should be protected from further losses.

Throughout the area, new woodland planting should be encouraged and carefully sited to integrate with the existing field pattern. New woods should be of a small to medium scale, i.e. between 1 and 3 hectares, and predominantly be of native mixed deciduous composition.

The architectural integrity of villages should be preserved in any developments. Infill should only be considered if sensitive to existing built forms and arrangements and ideally would utilise existing buildings.

Where possible, the restoration of traditional smaller scale agricultural landscapes around rural settlements should be encouraged. Hedgerow planting, field sub-division, planting of trees and, wherever possible, creation of public open space, should be considered to soften settlement edges.

Most watercourses flow westward towards the River Trent, becoming increasingly modified for flood defence and land drainage purposes. These ditches offer nature conservation potential and, wherever possible, should be modified and managed to improve their habitat diversity.

Open Farmed Scarp Slope – North and South of Kirton in Lindsey

Landscape Strategy:

General landscape policies should seek to conserve, restore and locally enhance the landscape of this locally prominent farmed scarp slope that rises to an altitude of around 60m above gently undulating terrain.

Landscape Guidelines:

Seek to conserve the character of Kirton in Lindsey by limiting both insensitive village expansion and excessive infill of important open space. Concentrate on re-use of existing buildings and ensure any new buildings utilise traditional building materials, where possible, and follow local architectural styles.

Conserve views to escarpment skyline by avoiding the prominent siting of new structures in elevated positions.

Seek to prohibit the siting of new mineral extraction sites along the scarp slope. Advance planting

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

should be carried out to mitigate possible visual impacts of quarry sites considered essential close to the escarpment. Those already existing should be considered for landscape restoration in order to reduce their visual impact.

Protect and manage all remnants of ancient woodland, spring-line and ditch vegetation. Identify opportunities for the re-creation of these features. Seek to conserve and enhance existing tree cover along the escarpment, and develop the prominence of all primary hedgelines through renewal, management and the arrangement of hedgerow trees. The alignment of hedges, mostly perpendicular and parallel to slopes, should be maintained.

Augment existing tree cover by encouraging medium-scale woodland planting on more elevated and rising ground. However, skyline or ridge planting should be avoided.

New woodland and shelterbelts should include only native broadleaf species. Coniferous plantations should be avoided and medium-term management policies implemented to re-structure those present to contain a greater percentage composition of deciduous trees.

Farmed Urban Fringe – South of Scunthorpe

Landscape Strategy:

In this urban fringe landscape, where proximity to Scunthorpe and the M180 significantly degrades the rural context of the scenery, creation of a new landscape would be appropriate to integrate the urban edge and provide opportunities for recreation.

Landscape Guidelines:

The urban fringe landscape of predominantly arable land use is degraded by the visual prominence of transportation corridors, transmission towers, electricity substations and both active and former iron and steel industrial sites. Seek to introduce woodland screen planting to help soften this transition zone and integrate these man-made elements into the landscape.

Seek to develop a cohesive character for this area by development of hedgerows and shelterbelts to improve the existing field pattern.

Consider the introduction of a community woodland strategy to link with the surrounding landscape and offer recreational potential along with the provision of leisure facilities.

Heathy Woodland – Risby Warren and Broughton

Landscape Strategy:

The heathland and woodland of this local landscape type have visual, recreational and ecological importance at a local, regional and national level. Landscape guidelines should seek to conserve the landscape whilst providing opportunities for localised enhancement.

Landscape Guidelines:

Woodland age, species and structural diversity should be encouraged by selective felling, re-stocking and long-term retention using appropriate species and management techniques.

Open spaces within woodland should be encouraged. Where possible, the open spaces should blend with heathland and woodland in an effort to increase the ecological connectivity of heath, wood and wetland habitats.

In peripheral woodland areas, consideration should be given to the restoration of lowland heathland.

The encouragement of low-key recreational facilities in this area should be closely related to the development of public rights of way. Linkage opportunities should be encouraged through the creation and maintenance of bridleways, cycleways, forest walks, etc.

Masterplan proposals should be prepared for the area as a development vision that seeks to balance the requirements of woodland/heathland management and re-creation, agriculture and timber production and improved green corridor linkage opportunities to the surrounding countryside and Scunthorpe.

Wooded Scarp Slope – Manton, Raventhorpe and Santon

Landscape Strategy:

Seek to conserve the wooded character of this escarpment feature whilst also developing local opportunities to plant new woodland and hedgerows and encourage ecological diversity

Landscape Guidelines:

Seek to conserve, enhance and encourage further tree cover along the scarp slope and also the development of hedgerows, particularly where linking with woodland blocks, to maximise possibilities for habitat linkage and wildlife dispersal.

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

Promote woodland and hedgerow management to re-structure excessively even-aged woodland and ensure the continuation of valuable habitat resources.

Aim to increase the thicket shrub content of woodland edges to increase habitat potential and visual diversity.

Any new planting or management of woodland should ensure that the woodland blocks maintain a close relationship to landform. For example, most woodlands are situated as skyline features or as geometric shelterbelt plantations across the whole slope.

Where appropriate, promote informal recreation facilities by increased provision of woodland trails, parking places, viewpoints and picnic sites.

To maintain the visual context of the escarpment scenery that is visible over an extensive area, new buildings or development should be restricted wherever possible.

Steep Wooded Scarp Slope – West of Burton upon Stather and Alkborough

Landscape Strategy:

Seek to conserve and enhance the ecological diversity and intimate wooded character of this prominent scarp slope by sympathetic management techniques.

Landscape Guidelines:

Ancient and long-established semi-natural woodland requires careful management, selective felling and restocking. In particular, a proportion of non-native tree and shrub species should be selectively removed to encourage the development of native species.

Promote the conservation and enhancement of habitat diversity by encouraging rejuvenation of woodland and hedgerows and providing habitat links where feasible.

Encourage the retention of open areas providing valuable rough grass and scrub transition zones.

Maintain the scarp slope in its existing visual context i.e. preserve the existing skyline and restrict new buildings and structures.

Industrial Landscape – Eastern Scunthorpe

Landscape Strategy:

East of Scunthorpe lies a landscape blighted by the former activities of iron and steel industries. Rural structure has been lost and the countryside consumed into an

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

industrialised landscape. Creation of a new structural landscape to integrate the unsightly development would be appropriate.

Landscape Guidelines:

Active businesses and corporations should be encouraged to undertake 'Environmental Audits'. Such audits should systematically examine the interactions between business operation and its surroundings. This would include all emissions to air, land and water; legal constraints; the effects on the neighbouring community, landscape and ecology; and the public's perception of the local area.

Active industrial sites should be encouraged to investigate potential for unification and landscaping techniques to mitigate their overall visual impact. The immediate improvements could be rationalisation and upgrading of perimeter fence security systems to include hedges, shelterbelts and screen planting, cleaning up generally and reclamation of derelict sites.

Prospective major developers should undertake detailed environmental assessments or environmental reports as part of their planning applications. In keeping with EA regulations these assessments should in particular look at opportunities for mitigation including site planning technical measures, aesthetic and ecological measures. Such measures should seek to relate to the surrounding landscape or offer a vision for the re-appraisal of the wider landscape setting.

Opportunities should be investigated for the implementation of large tracts of structural woodland planting. Afforestation policies should seek to integrate with and screen existing industry, and provide an eventual setting for new business activity relying less on a heavy industrial base.

Despoiled Landscape – North East Scunthorpe and Lincolnshire Edge

Landscape Strategy:

In this landscape blighted by the legacy of former heavy industries, landscape strategies should be aimed at landscape creation and conservation of developing ecological resource.

Landscape Guidelines:

While parts of this landscape merit a degree of protection, this is also a landscape of opportunity with significant scope for landscape enhancement and the creation of new landscape. New landscape should be centred around, and extend developing areas of woodland and wetland, and opportunities should be sought for re-creation of former habitats such as heathland. The ironstone 'gulleys' reflect the industrial history of the area and detailed proposals should reflect this context.

Public access should be encouraged between Scunthorpe, Normanby Hall and the gulleys area where appropriate and where there are no contamination risks.

Woodland planting proposals should seek to increase the tree cover along the escarpment. Such tree cover would increase the visual attractiveness of the area and aid the development of a more cohesive identity.

Wooded Undulating Farmland – East of Messingham

Landscape Strategy:

To conserve and enhance the existing wooded character through management of existing woodland and limited landscape improvements.

Landscape Guidelines:

Conservation and enhancement of all woodland areas through comprehensive management and rejuvenation strategies. Development of the Sites of Nature Conservation Interest as a central focus for habitat links and wildlife corridors with other further outlying woodland areas.

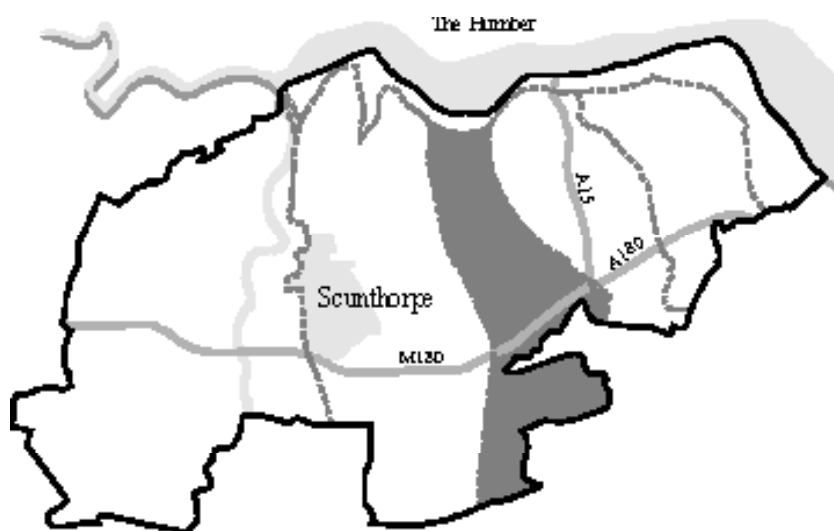
Seek to repair existing hedgerows and re-establish field boundaries where hedgerow loss is evident. Introduce more trees and more traditional hedgerow management techniques.

The M180 motorway corridor is an intrusive feature, particularly near Scunthorpe, appearing as an urban feature in an otherwise rural setting. Woodland planting initiatives should be encouraged along the motorway to improve its assimilation into the local and wider landscape.

Aim to increase the shrub content of woodland edges to existing woodland blocks to increase habitat potential and visual diversity.

VALE OF ANCHOLME

PART 1: LANDSCAPE CHARACTER



Key Characteristics

- i) Broad, low-lying arable vale, enclosed slightly by rising ground of the Lincolnshire Wolds scarp slope and less distinctively to the west by the dip slope of the Lincolnshire Edge.
- ii) Intensive large arable fields, with remnant hedgerows and artificially drained soils. Pockets of pasture on the heavier clays.
- iii) Variable woodland cover with little on the low-lying clays and coniferous plantations on the 'blown drift' of the coversands.
- iv) Sparsely distributed settlements concentrated on the elevated land on the central ridge or edge of floodplain create an overall quiet and rural character.
- v) Traditional building materials, predominantly of local brick.

Geographic Location

The Vale of Ancholme within North Lincolnshire forms part of a regional landscape character area that extends south from the Humber Estuary into the Lincolnshire Fenlands. For the purpose of this study, the southern extent is taken as the North Lincolnshire boundary some 23km south of the estuary. The eastern boundary of this landscape character area is clearly marked by the Lincolnshire Wolds escarpment and less distinctively by the rising ground of the Lincoln Edge dip slope. The valley is about 6km at its widest.

Physical Influences

The Ancholme Valley, also known as the Lincoln Clay Vale or Mid Clay Valley, has evolved from erosion of the soft upper Jurassic clays and is heavily mantled by Quaternary deposits, occasional glacial till and more extensive estuarine alluvium. The latter were mostly deposited during the sea level transgressions in the immediate post-glacial period. The estuarine alluvium, together with pockets of boulder clay, created the generally flat topography of the valley.

The drift deposits gave rise to heavy gleyed clay, and were extensively modified by artificial drainage from the mid 18th century onwards. The River Ancholme and many of its tributaries were canalised in this century and a series of rectilinear drainage ditches were constructed. This increased the fertility of the land, but only to the extent that most is now Grade 3 or occasionally Grade 4 status and is used for arable crops or pasture. The practice of 'warping', which was extensively carried out in the Trent and Ouse lowlands, is notably absent from this area.

An important element of the drift geology is the coversands i.e. deposits of blown sands. Extensive tracts of these occur along the eastern edge of the valley abutting the escarpment slope of the Lincolnshire Wolds. The free-draining nature of the sandy brown earths derived from the blown sands render repeated arable cropping difficult without high inputs of fertiliser. As a result, there has now been extensive planting of the area with Scots pine, which has allowed natural regeneration of birch and subsequently oak to occur in unplanted or failed woodland glades.

Historic and Cultural Influences

The Vale of Ancholme has seen recurrent patterns of settlement since prehistory. The earliest archaeological remains include an ancient long boat. The Humber and its tributaries contain some important archaeological sites including five Scheduled Ancient Monuments. The area has revealed some major archaeological finds, notably four of the only five prehistoric plank boats unearthed in north western Europe. An important find has been discovered at Brigg, a 15m long boat and causeway dated to circa 834 BC.

Based on these discoveries and palaeogeographic evidence, marine archaeologists have pieced together a former landscape of complex intertidal creeks colonised by estuarine and wet oak-alder carr vegetation that was gradually cleared to allow Neolithic animal husbandry.

Around 1500 BC, rivers offered well-defined and attractive areas for settlement, as well as providing trade and communication routes. Settlements such as Brigg developed at important river crossing points.

The Romans were the first civilisation to have a significant impact on the landscape. The Humber Estuary was a northern frontier of the Roman Empire for some 20 years (AD 50 to 70), before a northward push was made.

The 1086 Domesday records do not note any market towns in the valley. Brigg was a new town that exploited the 'Glanford' where the Lincoln Road crossed the Ancholme, carved out of three existing parishes in the late twelfth or early 13th century. The first part of this name 'Glean' suggests that sport or fairs were held here. The name of 'Brigg' comes from bridge, which the growing town soon acquired, and gained market charter in 1236. It remained a prosperous market town throughout the medieval period and rivers continued to provide important trade and communication routes as low-key pottery and agricultural activities flourished, centred around developing market towns, such as Broughton.

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

During the 16th and 17th Centuries villages and towns in the Vale experienced general economic decline.

Most land in the valley had been enclosed before the early 18th century following extensive, although not totally successful, land drainage in the 17th century. Although, more recently, agricultural intensification has altered the pattern of land use, much of the landscape's modern appearance was established in these centuries.

Settlement and Buildings

Brigg remains an important market town and the only significant settlement in the valley, although its economic fortunes have declined in recent years. The development of local brick and tile manufacturing in the mid 18th century had a significant influence on the area's architecture and vernacular, contributing to the present day dominance of Barton clay red-brick built housing with pantile roofs. Brigg is now a conservation area with some buildings dating back to the 16th century and is within an attractive setting overlooking the valley, visible over an extensive area. It has historically acted as a bridging point in the valley and together with the adjacent village of Wrawby, benefits from the slightly elevated position over the central low-lying areas of the area where settlements are generally absent. Villages and hamlets are concentrated along the margins of the area where the land rises slightly, for example the springline villages at the foot of the Wolds.

Elsham Hall and surrounding estate is also a significant settlement situated on the central ridge within the coniferous plantations at the foot of the Wolds. It has several listed buildings including the Hall Barn Theatre as well as the Hall and the estate is a country and wildlife park.

Brigg is nucleated in form with the two principal railway and road crossings (M180 and A18(T)) within the 23km length of the Vale concentrated on the surrounding land. Wrawby has developed at the junction of the roads from Brigg to Barton and from Brigg to Barnetby le Wold. It is less nucleated in form with some ribbon development extending out along these roads.

Much of the remaining valley is accessible by minor roads only. Consequently, farmsteads in the valley, particularly in the north, are remarkably dispersed. Typically they have an older brick built farmhouse surrounded by a cluster of more modern barns and outbuildings constructed from a variety of materials, such as timber, concrete, corrugated steel and, less commonly, brick. Most of these farms are highly visible even where located close to established, mature shelterbelts.

Landcover and Wildlife

The River Ancholme extends in a north-south direction through the centre of the valley with West Drain and Land Drain running parallel either side. The watercourses are more naturalised to the south of the Vale with a greater occurrence of farm ponds and reservoirs south of Brigg.

The 'new' River Ancholme has been canalized, although meandering along most of its length is the more naturalized course of the 'old' River Ancholme. This catchment area would have been dominated by fenland/meadowland were it not for the extensive drainage measures of the last few centuries, undertaken to create productive arable land. These habitats are only represented by waterside margins, with river corridor and 'in-channel' habitat and plant diversity poor and ditches, drains and dikes offering little potential for development

The river flows slowly through the valley, particularly during summer periods, increasing eutrophic

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

effects that reduce water quality. The water quality of the Old River Ancholme and Land Drain are poor, with high nitrate concentrations. The lower reaches of the catchment are also adversely effected by saline ingress through tidal structures. If left unchecked this would affect flora and fauna and may deem these waters unsuitable for spray irrigation, industrial and potable use. Presently the Land Drain and West Drain indicate a low diversity in both fish species and biomass; West Drain also adversely affected by industrial discharge.

The pumped drainage system currently provides a range of aquatic environments, some relatively still, others flowing. The aquatic vegetation experiences cyclical change as a result of regular maintenance, from open water to dense plant growth and back to open water. The necessity to maintain a lowered water table results in unstable water conditions, a situation unfavourable for the development of species-rich aquatic and emergent ecosystems. This situation is exacerbated by the requirements, during drought, for crop watering.

There are few areas of semi-natural vegetation in the Vale, most having been affected by drainage and arable cultivation. There is one relatively large area of Coversand and a number of small discrete patches along the scarp face of the Wolds east of Brigg. Wrawby Moor SSSI in the centre of the largest area remains as heathland, probably protected by its position within the Elsham Estate. Coniferous plantations classed as Sites of Nature Conservation Interest now surround this open heath. However, this valuable heathland habitat is tending to dry out and has been invaded by shrubs and trees with relatively poor quality heath and acid grassland remaining.

Woodland blocks in the Ancholme Valley are mostly regular in shape, medium sized (i.e. 3 to 7 hectares) and deciduous with exception of the coniferous plantations of the coversands. Woodland tends to be of recent planted origin and many lack species, age or structural diversity. There is little, if any, visible evidence of semi-natural floodplain woodland although it can be assumed that some of the isolated roadside ash and crack willow are of semi-natural origin as remnant carr vegetation.

Occasional woodland blocks break up the open landscape, the most wooded area being the coversands plantation. There is generally a lack of hedgerow trees. The occasional woodland belt or groups of mature trees are associated with farmsteads.

As a result of agricultural intensification, few hedgerows remain on the valley floor. Where present the hedges are often in poor condition being discontinuous and commonly dying back from the base which may be due to fluctuations in the water table. This arrangement of hedgerows aligned to watercourses contributes to their ecological importance, offering improved conditions for habitat development and wildlife dispersal. Hedgerow cover is generally more common and of better quality on elevated land.

The Changing Countryside

Agricultural intensification and farm amalgamation is causing decline in mixed farming, an increase in field size and extensive drainage improvements resulting in a loss of hedgerows, hedgerow trees and semi-natural vegetation. Higher fertiliser input had led to the eutrophication of watercourses. Recent measures undertaken by the Environment Agency and MAFF aim to improve farming practices to reduce nitrate concentrations.

The Environment Agency is also presently managing saline intrusion on the Ancholme at South Ferriby by improving existing methods of control and making further improvements where necessary, principally connected with lock operation. A plan is in progress to improve the effluent quality

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

discharging into West Drain.

Coniferous plantation and intensive farming practices have been responsible for the loss of heathland habitats in the area, although this has now halted. The remaining heathland is subject to succession from birch scrub. Tourism and recreation facilities have developed with the Country and Wildlife Park at Elsham Hall.

Recent years have seen built development such as the M180, A18(T), transmission lines, the airfield near Hibaldstow, and the spread of housing. Brigg will be one of the principal growth sites within North Lincolnshire for future housing provision having developed large retail, leisure, education and service centres. It has also undergone a major regeneration and environmental enhancement scheme. Wrawby has seen small-scale village expansion on the outskirts of the village and there has been recent expansion of Barnetby le Wold, which although outside the Vale of Ancholme, has an impact on its landscape.

Demand for recreation along the River Ancholme is growing. Access along sections of the bank have been lost because of bank erosion and changes in farming practices i.e. conversion of grassland to arable. Excessive weed growth has limited recreational and navigational potential of the river as well as restricting habitat development. Initiatives have been instigated between the Environmental Agency and other parties to undertake enhancements to the River Ancholme, including revetments, habitat creation, otter holt provision, toilets, recreational and car park provision etc.

- i) Future pressures for change may include:
- ii) Further pressures for farm amalgamation and improved agricultural efficiency.
- iii) Further growth of Brigg.
- iv) Industrial redevelopment of former British sugar site.
- v) Recreational development of River Ancholme.
- vi) Improvement of access by the development of new permissive paths under the Countryside Stewardship Scheme.
- vii) The 'Right to Roam' movement may lead to pressure on heathland habitats.
- viii) Further pressure on heathland due to depletion of groundwater levels.
- ix) Protection and enhancement of lowland heath, field margins, pastures and meadows and field boundary features under the Countryside Stewardship Scheme.

Visual Characteristics of the Landscape

Though extensive, the modified watercourses have little visual presence in the wider valley scenery and farm ponds and reservoirs have limited visual importance. The lack of visibility of the watercourses combined with extensive hedgerow loss in the valley results in a lack of visual definition and structure. Woodlands, where present, have an enhanced visual presence in the valley due to its flatness,

North Lincolnshire Council

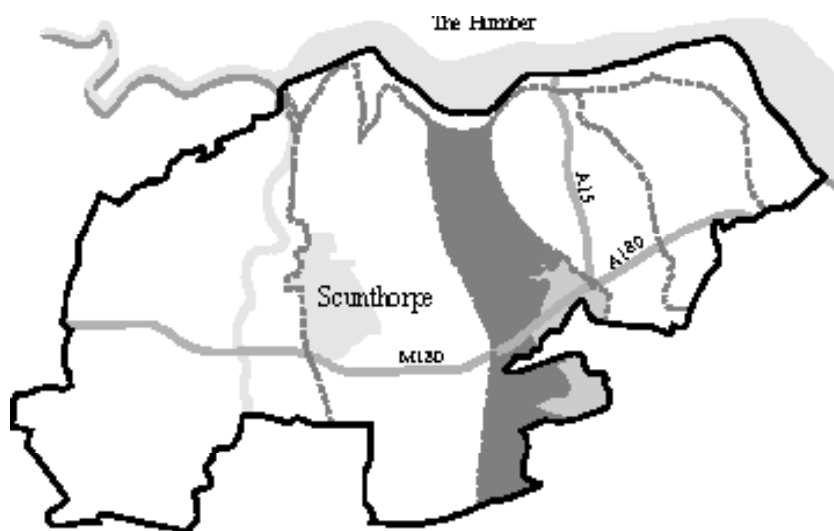
North Lincolnshire Landscape Character Assessment and Guidelines

the openness of views and general lack of visual diversity. The distribution of roads through the Ancholme Valley is uniform and these straight and regular lanes tend to reinforce linear qualities of the landscape.

Transmission lines traverse the valley in three different locations and there are some prominent views to industry to the north near South Ferriby. The impact of the transmission lines is softened by the presence of more hedgerow trees in the Winteron Carrs area to the north. The M180 corridor near Wrawby Carrs and to the north of Brigg is very exposed. The openness of the landscape combined with its low-lying nature renders these features highly visible and intrusive.

The Ancholme Valley is for the most part a flat, open and low-lying agricultural landscape in which trees, copses, and proximity to the Lincolnshire Wolds provide a degree of local variation and enclosure. The predominantly Flat Valley Bottom Farmland is only occasionally altered by the presence of an increased distribution of trees and woodland and rising land on drifts of coversand in the Heathy Woodland zone and a narrow zone of Open Undulating Farmland.

Flat Valley Bottom Farmland – Roxby, Bonby, Appleby, Worlaby Carrs, Cadney, Froghall, North Kelsey Carrs



Key Characteristics

- i) Flat broad valley floor of artificially drained carrs, rising gently to the east.
- ii) Central regions of the Vale are peaceful, scarce of settlement with occasional traditional villages along the boundary and airfield near Hibaldstow.
- iii) Farmsteads are remarkably dispersed, particularly in the north, with typically older brick farmhouses surrounded by a cluster of modern barns and outbuildings constructed from a variety of materials.
- iv) A network of remote, straight minor lanes, the majority running in an east-west direction, emphasise the linear pattern and most are 'access only' emphasising the sense of remoteness and isolation in the valley.
- v) Woodland cover is limited and mostly in small to medium deciduous blocks as shelterbelts.
- vi) Some semi-natural vegetation remnant along the canalised River Ancholme and along the roadside as individual mature trees.
- vii) The few mature clipped hedgerows and isolated trees have a significant impact on the expansive landscape.
- viii) Large rectilinear fields relate to the pattern of the well-maintained drainage dikes, forming strong linear patterns. These often mark field boundaries and emphasise the uniformity of the landscape.

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

- ix) Ecologically important watercourses, farm ponds and reservoirs within the region.
- x) In places, the meanders of the old river divert from the canalised course of the 'new' river creating pockets of intensively productive agricultural land between.
- xi) Transportation corridors, such as the M180 and the railway are situated on the low flood embankments and have an enhanced visual presence, appearing as incongruous urban features in an otherwise open rural setting.
- xii) Visually intrusive elements include the South Ferriby cement works towards the Humber and transmission lines, which traverse the valley floor.

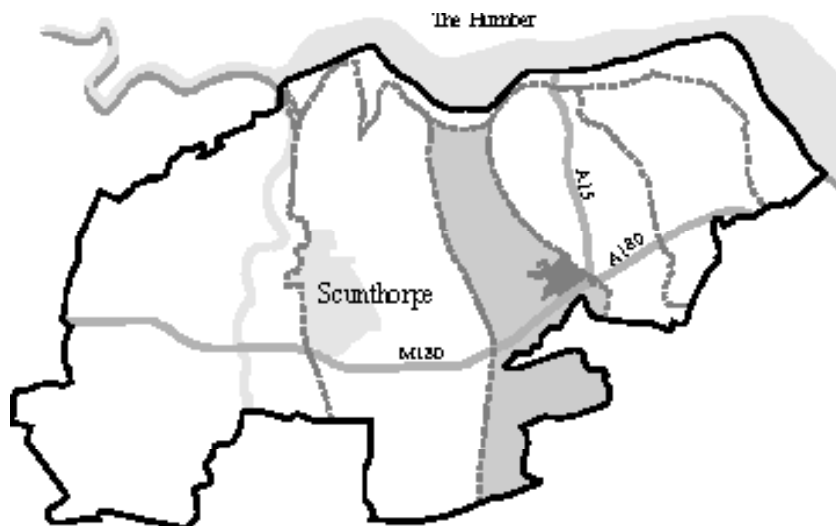
Geographic Location

This broad zone stretches the full length and breadth of the valley only locally disrupted near Brigg with southern edges along the coversands zone and periphery of Wrawby. The eastern boundary to the south is indistinct, lying on the periphery of Cadney below the 5m contour.

Influences

Estuarine alluvium and pockets of boulder clay are responsible for the generally flat topography of this broad valley and reasonably fertile soil. Early settlement favoured elevated land and left the floodplain relatively remote. Extensive modifications to watercourses and farm intensification are responsible for the landscape evident today.

Heathy Woodland – Elsham Country Park



Key Characteristics

- i) Gently rising lowland contained by the Wolds scarp to the north east and rising to the central ridge in the south.
- ii) Landform and wooded cover within the area and on scarp give sense of enclosure. The area is unified and peaceful.
- iii) Scarce of settlement. Farmstead, tourist and recreational facilities such as a camp-site and golf course as well as Elsham Hall outbuildings occupy the area.
- iv) Predominantly coniferous plantation with pockets of open heath and pasture on low-grade farmland surrounding Elsham Country and Wildlife Park; large patch of remnant heath at Wrawby Moor showing succession to birch scrub.
- v) Plantations tend to be in blocks of similar species, mainly Corsican and Scots pine.
- vi) Hedgerow trees are present with post and wire fence delineating fields.
- vii) The M180 is partially screened by the woodland and for the most part unintrusive.

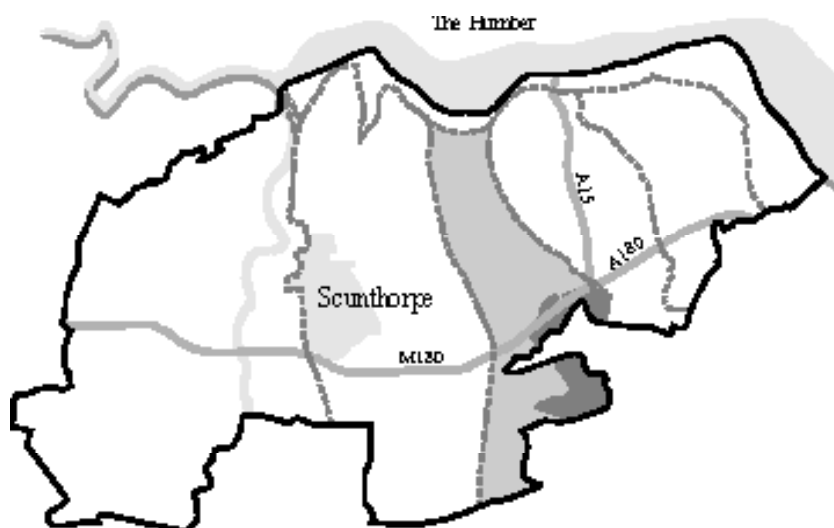
Geographic Location

The heathy woodland occupies a small area south west of Elsham, between the village and Elsham Station. The M180 crosses the zone close to the southern boundary.

Influences

This tract of Coversand overlies Jurassic and glacial clays, resulting in very deep and acidic soils. This has given rise to heathland that has been extensively lost to coniferous woodland and the Elsham Hall estate parkland.

Open Undulating Farmland – Brigg, Wrawby and Barnetby



Key Characteristics

- i) Open, undulating arable landscape with a relative sense of elevation over the valley floor.
- ii) Higher land of the Wolds and large wooded area surrounding Elsham give a sense of visual containment.
- iii) Edges of settlements are often prominent and interrupt the open character e.g. Barnetby le Wold.
- iv) Some recent expansion of settlements near to infrastructure.
- v) Traditional farmsteads with modern medium-sized sheds.
- vi) Trees in occasional medium sized woodland blocks of predominantly broadleaved species situated above Froghall Carrs in the south.
- vii) Well managed, clipped hedgerows apart from those close to the A18/ M180 junction.
- viii) Railway and transmission lines visually prominent in the open landscape. M180 is intrusive when viewed next to flat valley bottom, near to Brigg.

Geographic Location

This local landscape type encompasses two zones along the south and south east that are parted by the North Lincolnshire boundary. One area lies immediately to the east of Brigg and the other surrounds Howsham, where land rises above the 5m contour in both places.

Influences

This narrow ridge of elevated land rises some 40 to 50 metres above the floodplain. The underlying boulder clay and topography have given rise to soils that have been suitable for intensive farming. It has for centuries offered a convenient crossing point of the valley. The concentration of transportation corridors along the ridge, including the M180 and the growth of Brigg where it crosses the River Ancholme is a reflection of this.

VALE OF ANCHOLME

PART 2: LANDSCAPE STRATEGY AND GUIDELINES

Landscape Strategy:

The Ancholme valley would benefit from enhancement to improve landscape unity and structure. Traditional landscape elements such as woodland and hedgerows need to be re-instated to reverse losses as a result of the intrusive level of agricultural management. Localised strategies need to soften the impact of intrusive elements and instigate habitat creation.

Flat Valley Bottom Farmland – Roxby, Bonby, Appleby, Worlaby Carrs, Cadney, Froghall, North Kelsey Carrs

Landscape Strategy:

Enhance this area by seeking to initiate measures that introduce more woodland, effectively manage those present and provide more scope for habitat creation through waterside planting and ditch re-modelling. Hedgerows where present require effective management and repair.

Landscape Guidelines:

Encourage the planting of more mixed deciduous woodland in strategic areas that will not compromise the essentially open character, such as:

- a) *A naturalistic distribution along watercourses. Water-tolerant species such as willow and alder to re-create carr-type vegetation*
- b) *Medium-sized woodland blocks concentrated near to areas with intrusive impacts i.e. transport corridors and transmission lines, associated with farmsteads or linked to existing woodland blocks or hedgerows, discontinuous in nature*
- c) *Expansion of existing woodland such as surrounding Saxby All Saints*
- d) *Medium-sized regular woodland blocks to give partial enclosure to reservoirs and field ponds.*

Promote the management of existing woodland blocks to ensure their survival. Seek to diversify the structure, species, and age of woodland by techniques such as selective felling, restocking, and coppice rotation. The design of felling coupes should avoid removal of woodland edges and seek to

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

create more diverse woodland edge mixes to improve habitat diversity.

Seek to maintain mature trees and shelterbelts associated with farmsteads and encourage further planting around new and existing farm complexes.

Seek to increase the number of isolated roadside trees, particularly surrounding traditional villages.

Management and replacement incentives should be encouraged to develop the presence of hedgerows in the scenery, maintaining and infilling remnants. Give priority to hedgerows that follow the line of ditches to enhance their visual and ecological potential.

Seek to increase the cover of hedgerow trees near transmission lines where extending existing woodland would be unachievable or unsuited to the local scene.

Encourage new farm buildings to be sited close to existing farm buildings and wherever possible near to mature trees or established woodland. Build to respect the detail and scale of existing traditional buildings.

Necessary new roads or improvements should seek to reflect the distinctive pattern of existing roads and lanes in the design of new alignments. The distinctive road pattern and pattern of small lanes should be protected with proposals to develop alternative crossings across the valley resisted.

Prioritize enhancement work along natural and man-modified watercourses to improve visual and ecological value. Profile re-modeling and creation of marginal ecosystems could be encouraged for major watercourses, with hedgerows introduced along ditch lines, in consultation with land managers, NRA, MAFF and relevant Internal Drainage Boards.

Pockets of land between the Old and New River Ancholme could be used to create marginal ecosystems. There are opportunities for wet grazing, washlands and new salt and freshwater habitats in response to rising sea levels between Brigg and the Humber.

Incentives to utilise crops that are more drought-resistant could reduce likely stresses on the groundwater.

Encourage land managers to maintain the tradition of farm ponds and reservoirs and wherever possible maximise their ecological, recreational and visual importance.

Public rights of way through the valley should be maintained and in places enhanced to encourage improved low-key recreational access, such as footpaths, cycle routes and bridleways. Priority should be given to those rights of way that cross the Valley, particularly where they offer connection opportunities onto the Lincolnshire Wolds escarpment.

Heathy Woodland – Elsham Country Park

Landscape Strategy:

Seek to conserve the landscape, whilst providing opportunities for localised enhancement to find a balance between open heathland and coniferous plantation.

Landscape Guidelines:

In the re-creation or management of woodland, the following species should mostly be considered: Scots/Corsican pine, pedunculate oak, alder and silver or downy birch.

Encourage the progressive conversion of woodland to broadleaved woodland and implement management strategies of thinning, harvesting and replanting to improve appearance and increase diversity and wildlife value.

Seek to restore and extend heathland communities in feasible areas such as east and west of Wrawby Moor into adjacent birch woodland, in peripheral areas of and within coniferous plantations. New techniques such as minimal soil-strip and inoculation of 'heath' flora are being pioneered as methods to re-create lowland heath ecosystems.

Seek to restore heathland within plantation on unproductive areas such as frost hollows or boggy, low-lying compartments or within non-planted land that are currently used as rides, fire-breaks or amenity areas. Also seek opportunity to establish heathland species along the M180 road verge and railway verge.

Encourage the management of open spaces within woodland to prevent succession of birch. Where possible, the open spaces should blend with heathland and woodland in an effort to increase the area and connectivity of heath, wood and wetland vegetation.

The encouragement of low-key recreational facilities in this area should be closely related to the development of public rights of way. Linkage opportunities should be encouraged through the creation of bridleways, cycleways and forest walks.

Open Undulating Farmland – Brigg, Wrawby and Barnetby

Landscape Strategy:

Seek to enhance traditional landscape elements such as the higher coverage of hedgerows, hedgerow trees and occasional woodland blocks. It is important to maintain the medium-scale landscape of slightly smaller field sizes and enhance its relative sense of elevation.

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

Landscape Guidelines:

New woodland planting should generally be discouraged other than to assimilate transport corridors and edges of settlements into the local scenery. Peripheral planting should principally be of broadleaved species, discontinuous in nature and connected to primary hedgerows, hedgerow trees or existing blocks of woodland.

Promote the management of existing woodland blocks to ensure their survival. Seek to diversify the structure, species, and age of woodland by techniques such as selective felling, restocking, and coppice rotation. The design of felling coupes should avoid removal of woodland edges and seek to create more diverse woodland edge mixes to enhance habitat diversity.

Encourage localised tree planting around farmsteads prioritising the integration of intrusive buildings.

Seek to improve the visual presence of hedgerows in the landscape by encouraging replacement of discontinuous hedgerow sections and management of existing hedgerows, with priority given to the visually prominent, degraded fields near to the A18/ M180 junction.

Encourage the development of trees in hedgerows, particularly along roadsides and settlement edges and close to electricity distribution lines to soften the scene and provide local enclosure.

Any town expansion should be sensitive to the town character and surrounding landscape. For example, the open space between Brigg and Wrawby should be protected to avoid coalescence and similarly, further ribbon development approaching Scawby on the western edge of the town restricted.

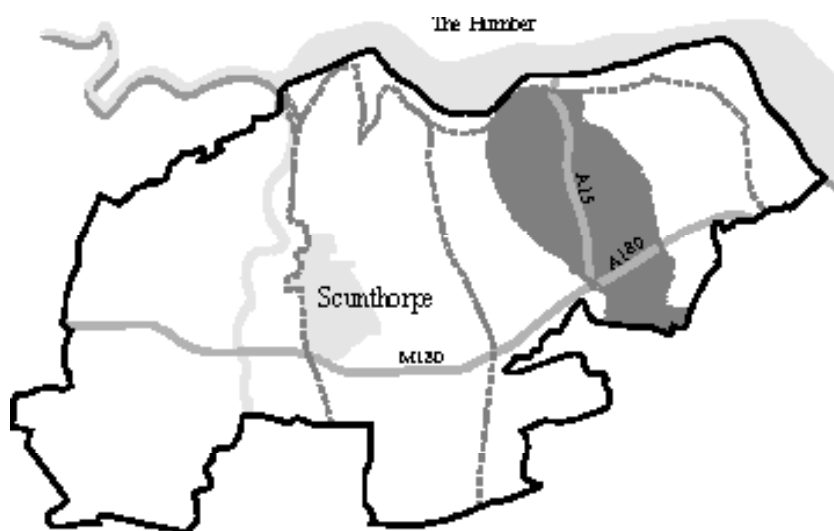
Sprawling settlements need to be visually contained, by the planting of raw edges and emphasis on traditional building materials, for example Barnetby le Wold.

The scale, siting and detailed design of new farm buildings should, as far as possible, be consistent with existing buildings.

Avoid future development on the most elevated land that would be visually intrusive on the skyline.

LINCOLNSHIRE WOLDS

PART 1: LANDSCAPE CHARACTER



Key Characteristics

- i) Rolling upland arable landscape of cohesive identity dissected by gently graded dales.
- ii) Pronounced scarp slopes to north and west, characterised by a mixture of woodland and farmland, with springline villages, affording panoramic views across the Vale of Ancholme and the Humber Estuary.
- iii) Large rectilinear late enclosure fields with clipped and degraded hedgerows and few hedgerow trees.
- iv) Field amalgamation has led to hedgerow loss in places.
- v) Small blocks of woodland and shelterbelts, often associated with isolated farmsteads, punctuate the otherwise open landscape of the escarpment top.
- vi) Sparsely settled with scattered farmsteads, and villages concentrated on the springline of the escarpment.
- vii) Character best developed towards the southern edge of the area.

Geographic Location

The Wolds within North Lincolnshire form part of a regional landscape character area that extends from the Humber Estuary in the north to the Lincolnshire Fens and the Wash in the south, and is typically 15km wide. Within North Lincolnshire, it rises as a clearly defined escarpment from the Ancholme valley in the west and the Humber Estuary in the north to form a plateau of low rolling hills

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

that dip gently in a north easterly direction towards the North Sea coast.

Physical Influences

A thin layer of chalk covers the Wolds within North Lincolnshire, which is approximately 50 metres thick. Due to this, along the lower escarpment slopes and in the deeper valleys, underlying Cretaceous sands, clays and ironstones outcrop to affect the overlying soils, vegetation and land use.

Ice did not extend across the Wolds during the last glaciation. The intensity of climatic and periglacial conditions however, led to a softening and rounding of the hills. Following de-glaciation, complex fluvio-glacial and aeolian processes operated extensively across the Wolds. In the west, aeolian sands banked up against the Wolds escarpment whilst, in the east, a complex depositional environment of lakes, rivers and deltaic spillways washed across the Wolds dip slope leading to the accumulation of sands and gravels in the eastern valleys, many of which were over-deepened during this period.

The complexity of the area's solid geology and drift deposits is reflected in the overlying soil and land use patterns. Escarpment tops exhibit high chalky soils (Grade 2) which lend themselves to arable cropping, whilst on the scarp slope and valley sides, the Jurassic rocks give rise to deeper, more varied soils. Local pockets of boulder clay result in heavy, seasonally waterlogged soils, more suited to pasture. The deposits of windblown sand produce sandy, brown earth soils. The free-draining nature of such areas render repeated arable cropping difficult without high inputs of fertiliser.

Historic and Cultural Influences The Lincolnshire Wolds have seen recurrent patterns of settlement over several thousand years. During prehistoric times, the Wolds were extensively cleared of trees and many defensive, burial and boundary structures were put in place. Unfortunately, few of these sites are visible due to repeated cultivation of the land.

Recurrent settlement in Roman, Anglo-Saxon, and Danish periods is evidenced by roads, place names and the presence of medieval villages. The Domesday survey records that by 1086 much of the Wolds was under arable cropping, under the open field system. From the 12th century, many villages were deserted, due to changes in land-use, plague and population movements. Most of the visible evidence of these villages has now been lost, except to the trained eye.

Parliamentary Enclosure patterns and 20th century agricultural intensification have had a significant influence on the Wolds landscape, contributing to the dominance of large fields bounded by low hawthorn hedgerows.

Settlement and Buildings

The elevated parts of the Wolds are sparsely settled with scattered farmsteads, the majority of villages being concentrated on the springline of the scarp slope.

The large farmsteads scattered within the elevated farmland are a characteristic feature and strong visual presence. Often farms are situated in isolated locations, with their buildings clustered around the original, usually brick built, 19th century farmhouse and protected by groups of trees or shelterbelts. Farms often include grain silos, which are highly visible due to their size and the open nature of the landscape.

Villages tend to have a mature, established character. Many of these villages have very old historical

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

connections, for example, Horkstow, which dates from Roman times. Construction materials such as limestone, chalk, brick and pantile combine with attractive village arrangements that include ponds, greens, irregular outlines and a diversity of building sizes.

Landcover and Wildlife

The characteristic clipped thorn hedgerows of the Wolds are largely products of the 18th century Enclosure Period. Localised field amalgamation and agricultural intensification has led to removal of hedgerows in some areas. Hedgerow neglect is more common, where over-enthusiastic clipping and lack of hedgerow management has led to hedges becoming discontinuous, with resultant loss of field boundary definition.

Hedgerow trees and avenues are not a common feature of the Wolds landscape. However, due to the openness of views and rolling nature of the landscape, where they are present, trees often play an enhanced compositional role in the scene. Although woodland cover is limited, the tall and mature shelterbelts are compositionally important, often marking out farmsteads, following skylines, and emphasising the rolling terrain.

Woodland is limited to occasional small blocks almost exclusively of a recent planted origin, dominated by broad-leaved species such as ash, wych elm, pedunculate oak, hazel and hawthorn.

The Lincolnshire Wolds have been intensively farmed and the extent of semi-natural habitat is very limited. The habitats that remain of interest are chalk grassland, pockets of ancient or long-established woodland and wet flushes. Such habitats are very restricted in size and occurrence. Recolonisation of exposed chalk faces in old quarries, road and rail cuttings and thin-soiled road verges, has led to the development of valuable calcareous grassland flora in some areas. On the west facing farmed escarpment, isolated chalk springs and flushes support locally interesting flora.

The Changing Countryside

The developments of the 20th century have had a considerable impact on the landscape. New roads and transmission lines are intrusive as they cut across the open landscape and a number of quarries have been developed such as at Elsham, Melton Ross and South Ferriby. The 20th century has also seen the rise and subsequent decline of the airfield at Elsham, which has now been partly redeveloped as an industrial estate. Radio and telecommunications masts are common features within the landscape.

Agricultural intensification, and farm amalgamation to create larger units, have caused the removal of some hedgerows and remnant unimproved grassland. Existing woodland and shelterbelts are often neglected, and planting of conifers and species inappropriate to the local character has occurred in some areas. Pressure on water resources has led to the depletion of aquifers and drying up of spring fed ditches, which in turn has led to an increasing number of irrigation reservoirs to support cropping. Recreational pressures have not, to date, had a significant impact on the landscape.

Quarries at Melton Ross, South Ferriby and the disused Leggotts Quarry (adjacent to South Ferriby) are all located on major aquifers which limit their suitability for future landfill use or for backfilling with e.g. colliery spoil, although the quarry at Melton Ross has an outstanding permission for import of inert waste, much of which (or possibly all) has now been used. Otherwise, this quarry is undergoing progressive low level restoration following the advancing quarry face. In addition, cement kiln dust from South Ferriby cement works has been disposed of at South Ferriby Quarry.

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

Both South Ferriby Quarry and Leggotts Quarry are protected by designations (geological SSSI and SNCI respectively) which limit their future use and further development.

Future pressures on the landscape may include:

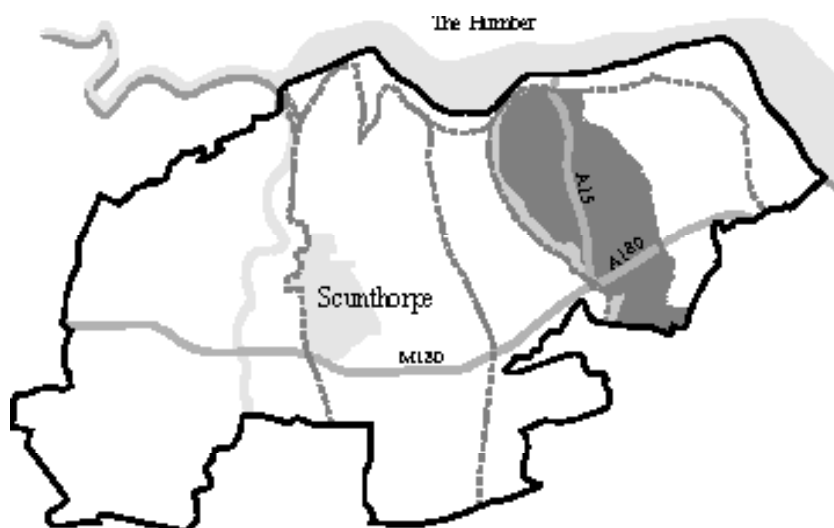
- i) Increased demand for water resources, resulting in proliferation of reservoirs.
- ii) Quarrying pressures, and possible further pressure to utilise quarries for landfill or tipping of inert waste.
- iii) Further pressure for industrial development within open countryside.
- iv) Further degradation of hedgerows.
- v) Pressure for farm diversification.
- vi) Possible further pressure for infrastructure/power development, such as transmission lines, windfarms etc.
- vii) Development of a motorway service station at Barnetby top.
- viii) Protection and enhancement of chalk grassland, wet grassland, riparian habitats, old meadows and pastures and associated historic features and improvement of field boundaries under the Countryside Stewardship Scheme.

Visual Characteristics of the Landscape

The Lincolnshire Wolds comprise a landscape character area within which a range of historical and geological influences act together to produce a landscape that has an overall coherence of character and internal diversity of type.

In broad terms, visual characteristics common across the Wolds within North Lincolnshire are the sweeping and rolling terrain, openness of views, dominance of arable land use with its seasonally changing colours and textures, thin chalky soils and the shelterbelts and woodland of the escarpment and valleys. Most of the landscape is categorised as **Open Rolling High Farmland** with local variation provided by **Wooded Farmed Scarp Slope** and **Open Farmed Scarp Slope**

Open Rolling High Farmland – Lincolnshire Wolds Escarpment Top



Key Characteristics

- i) Elevated, open and expansive, rolling arable landscape, dissected in places by gently graded dry valleys.
- ii) Large fields often lacking boundary definition.
- iii) Clipped thorn hedgerows defining some field boundaries.
- iv) Occasional blocks of mainly deciduous woodland including a block of ancient semi-natural woodland west of Melton Ross, but few hedgerow trees.
- v) Isolated, often traditional farmsteads surrounded by shelterbelts of trees.
- vi) Absence of villages from escarpment top.
- vii) Areas of modern industrial development in large 'sheds', often sited in exposed locations.
- viii) Transmission lines prominent, wooden pole lines and occasional radio masts a significant feature within the open landscape.
- ix) Traffic prominent where the main roads sweep across the open landscape.
- x) Open long distance views, particularly from northern and eastern boundaries where there is an abrupt change in slope providing vantage points from which to view the Humber Bridge and Estuary, and the Vale of Ancholme.

North Lincolnshire Council
North Lincolnshire Landscape Character Assessment and Guidelines

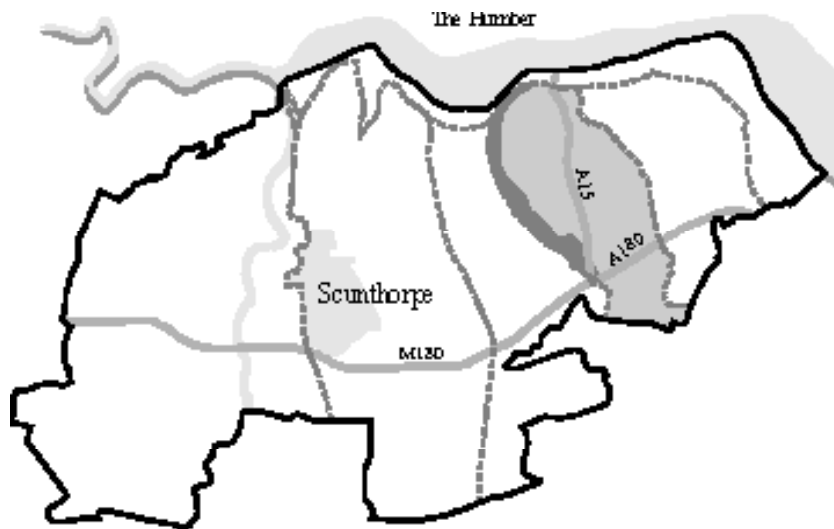
Geographic Location

This landscape type extends eastwards from the top of the Wolds scarp slope adjacent to the Ancholme Valley. Its northern boundary is the top of the escarpment as it rises above the Humber Estuary, in the vicinity of the Humber Bridge and the settlement of Barton upon Humber. The southern boundary lies in the vicinity of Barnetby le Wold, near Humberside International Airport.

Influences

The rolling landscape of the escarpment top is the product of climatic and peri-glacial conditions following the last ice age, which has led to a softening and rounding of the hills. The area is covered by a thin layer of chalk, whose soils of Grade 2 quality lend themselves to arable cropping. Parliamentary enclosure patterns and 20th century agricultural intensification have had a significant influence on the landscape, contributing to the dominance of large fields bounded by low hawthorn hedgerows, and a sparsity of semi-natural habitats.

Wooded Farmed Scarp Slope – Between Barton upon Humber and Elsham



Key Characteristics

- i) Abrupt slope between the Ancholme Valley and the edge of the high farmland of the Wolds, which diminishes in angle south of Elsham.
- ii) Medium scale varied landscape, part-enclosed and part-open, comprising a mixture of arable and pasture farmland, hedgerows with hedgerow trees, deciduous woodland, dry valleys, springline settlements and quarries.
- iii) The scarp top is largely open but is in places punctuated by individual trees and woodland.
- iv) Slope becomes hummocky and undulating in places, and is smoothly graded in others.
- v) Woodland occurs in sinuous, linear strips that follow the contours of the slope.
- vi) Evidence of hedgerow decline, hedgerow planting and tree planting in certain locations.
- vii) Historic influences of traditional scarp foot springline villages, halls and parklands associated with each village, and small fields on village edges.
- viii) Nature conservation interest provided by pockets of scrub and grassland, and springline marsh communities.
- ix) Intrusive features concentrating in certain areas, such as the transmission lines crossing the scarp at Horkstow, the quarry conveyor and views towards the cement works at South Ferriby, and the M180 crossing the scarp slope south of Elsham.

Geographic Location

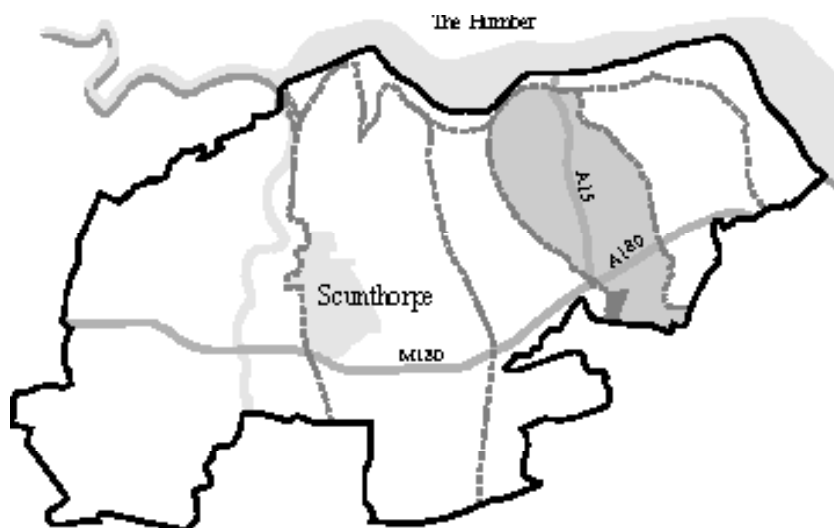
Extending as an arcuate ridge along the eastern edge of the Ancholme Valley, this scarp slope rises some 80 metres above the surrounding countryside. It lies between Barton upon Humber in the north and Elsham in the south where it is truncated by the M180.

Influences

The scarp slope of the Wolds is in marked contrast to the character of the escarpment tops, due largely to their underlying geological influences. Whilst the escarpment top is overlain by chalk, on the scarp slope this gives way to deeper, more varied soils. Local pockets of boulder clay give rise to heavy, seasonally waterlogged soils, more suited to pasture, while the more chalky soils lend themselves to arable farming.

Villages have developed over the centuries along the scarp slope springline, which has also led to the development of pockets of marsh vegetation. Associated with each village is a manor house or hall, each with its own parkland, which lend a well-treed character to the springline villages.

Open Farmed Scarp Slope – Barnetby le Wold



Key Characteristics

- i) Sloping open mixed farmland of medium scale, offering views across farmland to west.
- ii) Simple pattern of fields with clipped thorn hedges parallel with, and at right angles to, the slope, with small blocks of deciduous woodland and few hedgerow trees.
- iii) Hedgerows gapped and have been lost in places to field enlargement.
- iv) Open skyline, interrupted occasionally by buildings, trees and a windmill.
- v) The sprawling village of Barnetby le Wold clinging to the lower slopes and extending into the valley floor, providing a suburban influence.
- vi) Few intrusive features apart from the railway on the northern boundary, and wooden electricity poles.

Geographic Location

This small area of scarp slope lies to the south of the M180 and is centred on Barnetby le Wold.

Influences

The scarp slope is in marked contrast to the character of the escarpment top, due to the underlying geological influences. The chalk escarpment top gives way to deeper alluvial clays on the scarp slope, which lend themselves to a mixture of arable and pasture farming.

LINCOLNSHIRE WOLDS

PART 2: LANDSCAPE STRATEGY AND GUIDELINES

Landscape Strategy

The Wolds possess a gentle charm characterised by open and smooth rolling terrain with expansive views. The openness of the chalk farmland is accentuated by the enclosed and intimate character of woodland and small villages encountered on the lower slopes. The landscape of the Lincolnshire Wolds is vulnerable to change through insensitive development or inappropriate land management. The overall strategy for planning and management is therefore one of conservation and enhancement.

Open Rolling High Farmland – Lincolnshire Wolds Escarpment Top

Landscape Strategy:

Enhance the character of this simple rolling landscape.

Landscape Guidelines:

Give careful consideration to siting of new development, vertical structures or quarries, which can be highly intrusive within the open landscape.

Seek to conserve the existing pattern of isolated large farmsteads and open views across rural land by avoiding new development in the open countryside.

Wherever possible new agricultural buildings should normally be located within, or adjacent to, existing farmstead curtilages and should be sited, designed and landscaped to integrate with their setting.

Maintain character of rural roads and protect from engineering improvements that would be insensitive to that character.

Promote the management of chalk grassland in dry valleys and road verges to increase ecological diversity. The restoration of permanent pasture and opportunities to enhance or manage existing chalk grasslands would benefit local landscape character. The Council should support and actively encourage EC agricultural initiatives of this nature.

Encourage the conservation, restoration, replacement and management of all primary hedgelines, particularly in prominent, or historically significant situations, i.e. along roadsides or parish boundaries.

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

Protect existing hedgerow trees, and replant in selected locations, taking care to reflect the existing sparse pattern of these trees which is characteristic of the open landscape.

New woodland planting should reflect the existing native species mixes, wherever possible utilising plants of local provenance. In selected situations, other species could make notable visual contribution although their inclusion in planting mixes should not compromise specific local nature conservation objectives. Such additional species might include beech, sycamore, Scots pine, hybrid larch, beech, field maple and wild cherry.

Promote the implementation of landscape integration projects in areas where discordant elements intrude, e.g. A15 and A180(T) corridors, transmission lines, industrial estates, quarry sites, through planting and hedgerow repair appropriate to that character.

The existing extent and general arrangement of woodland and shelterbelts is distinctive and should be maintained, any new woodland planting should reflect the existing pattern, species and scale (i.e. relationship with skylines and farmsteads should be maintained.

Ancient and long-established semi-natural woodland requires careful management, selective felling and restocking. In particular, a proportion of non-native tree and shrub species should be selectively removed to encourage the development of native species.

Wooded Farmed Scarp Slope – Between Barton upon Humber and South Ferriby

Landscape Strategy:

Conservation is required to protect the diverse characteristics of the scarp slope.

Landscape Guidelines:

Seek to conserve 'spring-line' village character and form by limiting both insensitive expansion and infill of important village open space. Concentrate on re-use of existing buildings and ensure that any new buildings follow established architectural styles.

Encourage the conservation and enhancement of tree cover around existing settlements.

Discourage new mineral extraction or waste disposal within a scarp slope setting.

Promote advanced woodland planting around sites that have been identified as acceptable future mineral extraction sites.

Promote woodland management to re-structure excessively even-aged woodland. Seek to increase the shrub content of woodland edges to increase habitat and visual diversity.

Any new planting or management of woodland should ensure that the characteristic sinuous form and

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

existing relationship to landform is maintained. Species should reflect native composition.

Encourage the thickening and infilling of hedgerows and, where possible, link with woodland blocks to maximise possibilities for habitat linkage and wildlife dispersal. Protect and replant hedgerow trees.

Conserve views of the scarp and skyline by prohibiting the prominent siting of new structures.

Conserve pockets of pasture and seek to secure management agreements that will enhance their floristic diversity. Seek to protect pockets of scrub and conserve spring-line marsh communities.

Protect and encourage conservation and enhancement of areas of parkland.

Open Farmed Scarp Slope – Barnetby le Wold

Landscape Strategy:

Seek to protect and locally enhance the farmed escarpment character by strengthening existing hedgerows and woodland blocks.

Landscape Guidelines:

Seek to conserve village character and form by limiting insensitive expansion. Village expansion should preferably re-use existing buildings or, where this is not possible, utilise traditional building materials and follow local architectural styles.

Conserve views of the scarp and escarpment skylines by avoiding the prominent siting of new structures.

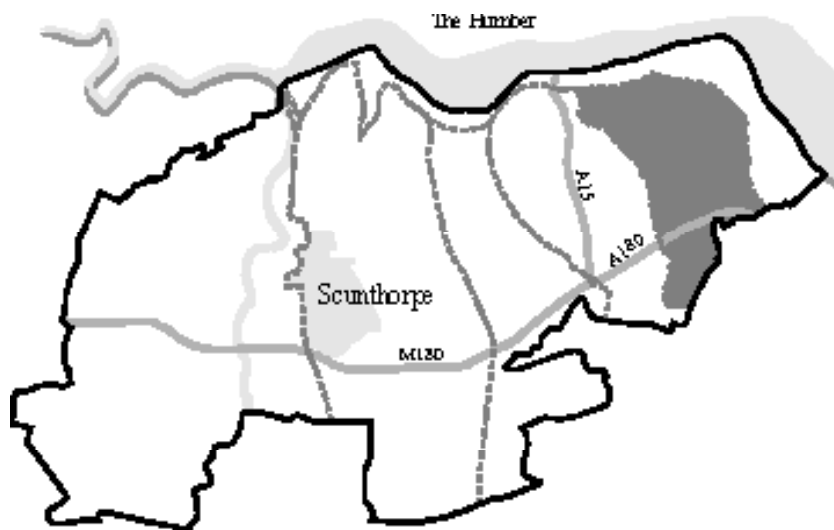
Seek to prohibit the siting of new mineral extraction sites in an escarpment setting.

Encourage the conservation and enhancement of tree cover around villages and farmsteads. Encourage the supplementation of existing tree cover through medium-scale woodland planting on rising ground, avoiding skyline or ridgeline locations.

Encourage the conservation, replacement and management of all primary hedgerows including the re-planting of hedgerow trees. The existing alignment and siting of hedges, mostly perpendicular and parallel to slopes, should be maintained.

LINCOLNSHIRE DRIFT

PART 1: LANDSCAPE CHARACTER



Key Characteristics

- i) Gently undulating arable landscape with topography dipping from the higher Lincolnshire Wolds in the west to the flat landscape of the Humber to the north and east.
- ii) Settlement is dispersed with a concentration of larger settlements to the north and brick with pantile or occasionally slate roofs the local vernacular.
- iii) Large scale rectilinear intensively farmed fields with pockets of smaller-scale historic landscape.
- iv) Clipped hedgerows, some degraded due to farm amalgamation.
- v) Open landscape punctuated by medium-sized woodland blocks becoming more common in central and southern regions.
- vi) Trees tend to be concentrated around farmsteads and settlements and are occasionally found within hedgerows.
- vii) Landscape is degraded in many places with urban influences, transmission lines and views of industry detracting from the rural scene.

Geographic Location

The Lincolnshire Drift forms part of a regional landscape character area that extends from the Humber Estuary in the north and east to the Wash and the Fens in the south, typically 5 to 7km wide. The flat coastal plain to the north and east marked approximately by the 5 to 10 metre contour borders Barton

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

upon Humber and encompasses Barrow upon Humber and Goxhill. This terrain rises gradually to more undulating land in the south and west where the foot of the Wolds marks the eastern boundary, lying around the 30 to 40 metre contour line immediately west of Wootton. The North Lincolnshire boundary lies on the south side of Kirmington.

Physical Influences

Although underlain by the Cretaceous chalk deposits that dip eastward from their outcrop along the Lincolnshire Wolds, the parent materials of the Lincolnshire Drift are predominantly glacial boulder clay, gravels and sands. Deposited by North Sea ice during the last glaciation, this till is 20 metres thick in places.

Soils derived from the glacial till form extensive tracts of generally fertile arable land, although drainage is not always satisfactory and often impeded. The characteristic undulating topography frequently results in a pattern of better drained upper slopes and poorer drained depressions. Narrow strips of heavy poorly drained clay, derived from alluvium, occupy many of the valleys that cut through the drift terrain. Most of these soils are of agricultural Grades 2 and 3. The disposition of arable land and pasture closely reflects these soil variations.

Historic and Cultural Influences

Patterns of human settlement through the Lincolnshire Drift mirror those described for the Lincolnshire Wolds in the preceding section. The relatively elevated land lying above the coastal marshes proved attractive to early settlers. Here early settlements concentrated along the valleys, which offered shelter and a reliable water source. Streams such as Skitter Beck were especially attractive and today still form the focus of village and farm settlement. Flint tools, made around 200,000 years ago were discovered in a gravel pit at Kirmington and is the first evidence of early settlers in North Lincolnshire.

The villages and hamlets throughout the area have a scattered arrangement. Like the Wolds, the Drift areas have seen major, permanent settlement since Saxon times. Most villages have Saxon or Danish origins, although the particular density of villages ending in 'by' such as Ulceby would indicate that the Danish were the main settlers.

In recent historical times, the coastal zone marking the area's eastern edge was in a general state of flux. The Iron Age coastline lay along a line approximated by the villages of Killingholme, Halton and Goxhill. Palaeogeographic evidence suggests that a wide intertidal zone of brackish marshes and creeks existed. Anglo-Saxon and Danish settlers slowly drained this land and by the 11th century much of it had been reclaimed for agricultural and pastoral purposes.

Barrow Castle is a protected Scheduled Ancient Monument and archaeological site and was fortified during the Norman Conquest with the other enclosures or 'baileys' added later. The Barrow estate was passed to Thornton Abbey when it was founded in 1139 and as the castle was never built in stone, remained an earth and timber fortification. The village cross here is also a Scheduled Ancient Monument.

Thornton Priory at Thornton Curtis was one of the best known ancient monasteries in the region and quickly prospered becoming an independent Abbey in 1148. It was one of the richest houses of its order, reflected in the magnificence of the buildings, of which only fragments remain as Scheduled Ancient Monuments. The great church was started in 1264 and underwent constant rebuilding. The site also contains a medieval road and bridge, moat, fishponds post-Dissolution college, school and

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

house. The closure of the abbey in 1539 by Henry VIII was followed by centuries of destruction. The ruins of the chapter house is a stark reminder of the stately hall built by Sir Vincent Skinner in 1602 which subsequently fell down because of its poor construction. The site was abandoned thereafter and tales were created about a ghostly canon that had been buried alive seated at a table with a book and a pen.

Through the medieval period and into the 18th century, the land of the Lincolnshire Drift was extensively used to fatten animals driven off the Wolds.

The 20th century has seen the development of airfields such as those at Goxhill and North Killingholme that have subsequently been redeveloped for industrial purposes. The development of industry, infrastructure and housing within and adjacent to the Drift Landscape Character Area has had a significant impact on the character of the landscape. Humberside International Airport south west of Kirmington has established traffic associated with offshore gas production and exploration and caters for UK and European flights.

Goxhill Hall and the remains of its manor house are set within a moated site with associated drainage system, fishponds and field system that are a Scheduled Ancient Monument. The Howle Hill bowl barrow at Wootton and Roman Settlement west of Kirmington are also Scheduled Ancient Monuments and there are archaeological sites surrounding Thornton Curtis, with two at Ulceby.

Settlement and Buildings

The arrangement and distribution of many villages date back to the medieval period. Most villages are tight-knit and nucleated around street patterns that have difficulty coping with modern traffic demands. Typically, villages display a strong architectural character with building materials, styles and scales blending to create attractive street scenes. Many villages have prominent churches with their steeples, or more commonly towers, visible across wide areas.

Rural settlement on lower slopes has experienced recent expansion with housing areas on the edges spreading uneasily into the countryside, such as Barrow upon Humber. Other settlements on the higher slopes, such as Wootton and Kirmington, have remained tightly nucleated.

The impressive brick and stone gatehouse of Thornton Abbey (an English Heritage site and listed building) is a remnant of what was once one of great ecclesiastical buildings of England. Brick was used from an early date and although the structure has some fine stonework features, the gatehouse is largely of brick rendered over to look like stone.

Landcover and Wildlife

The Enclosure Acts resulted in the creation of a farmed landscape with large regularly shaped fields over much of the Lincolnshire Drift. The demands for increased mechanisation in the farmed economy has led to the enlargement of fields and consequent loss of hedgerows and gradual decline of hedgerow trees. Remaining hedges and woodland in the landscape have an enhanced visual prominence due to the openness of views and lack of other traditional rural landscape elements. On the lower slopes, hedgerow trees become less common and watercourses such as East Halton Beck have become increasingly man-modified and less ecologically important.

Drainage and cultivation has led to losses of most grassland and woodland of interest. Nevertheless pockets of semi-natural woodland of slightly base-rich derivation remain, usually closely associated

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

with settlements or historic sites, e.g. within areas that extend from Thornton Abbey to Ulceby Junction and between East Halton and North Killingholme. These are found in the form of mature tree groups and mixed hedges, streamside woodland and within the ground flora of replanted farm woodland and tend to remain on the lower grade agricultural land compared to the higher grade more open land that abuts the Wolds to the west.

A wooded area of planted origin exists to the south surrounding Kirmington, which links to woodland of the Brocklesby Estate across the North Lincolnshire boundary. This mixed woodland has considerable bird interest, although the ground flora is unremarkable.

Typical canopy species of woodland in the area include pedunculate oak, ash, alder with an understorey of hawthorn, hazel, field maple and wych elm, the latter usually found as underwood suckering from cut stools or diseased elms. Indicator field layer species include dog's mercury, ramsons and enchanter's nightshade.

Sites designated as being of nature conservation interest include the woodland at Thornton Abbey and north of Barrow upon Humber. Kirmington Pit has been designated an SSSI for its geological importance providing an exceptional stratigraphical record with research importance for dating and reconstructing Quaternary environments, environmental changes, former sea-levels and landscape evolution.

The Changing Countryside

Agricultural intensification has had an extensive impact on the landscape. This is reflected in the loss of hedgerows through enlargement of fields, increase in arable production at the expense of permanent and temporary grassland, the loss of grassland verge and hedgerow diversity due to greater use of fertilizer and the abandonment of traditional farm buildings for larger agro-industrial complexes.

The development of infrastructure corridors such as the A180(T) to the south and transmission lines required to connect Killingholme power station into the National Grid, have had a significant impact on rural character. The airfields of Goxhill and North Killingholme have been redeveloped for industrial purposes. These small-scale areas now house some of the little industry in this landscape character area. They were set up as strategic storage and distribution sites and to support the estuary-related industry because of their proximity to rail and road or opportunity to provide some employment to the rural community. It is likely that the development at North Killingholme may expand in the future.

The terminal and runways at Humberside International Airport have been recently extended. It is likely in the future that the surrounding area will be developed as a business park to cater for airport related development. This will lead to substantial road improvements in the vicinity.

Barrow upon Humber is likely to be the principal site accommodating for future housing provision within the Lincolnshire Drift. Barton upon Humber on the edge of the area is likely to expand which may have an impact on the northern part of the area. Minimal growth is expected for other settlements in the Lincolnshire Drift although there may be pressure for infill in settlements such as Ulceby.

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

Future pressures for change may include:

- i) Continued pressure for agricultural intensification, farm expansion, diversification or specialisation.
- ii) Continued growth of Barrow upon Humber.
- iii) Continued growth of Humberside International Airport and associated Business Park and industrial growth at North Killingholme airfield.
- iv) Construction of Barrow upon Humber bypass.
- v) Protection and enhancement of wet neutral grassland and riparian habitats, pastures and meadows and field boundary features under the Countryside Stewardship Scheme.

Visual Characteristics of the Landscape

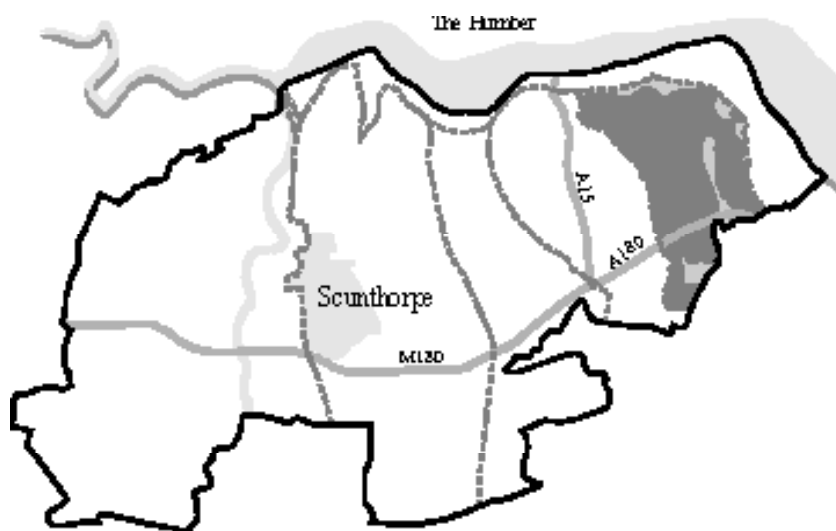
The Lincolnshire Drift Character Area is an unexceptional agricultural landscape without a strong sense of place, with urban elements often degrading rural character. The eye is often detracted from the rural scene by prominent transmission lines traversing the open landscape and unattractive distant views to industry.

The A180(T), which bisects North Lincolnshire to the south, linking Grimsby and Cleethorpes to Scunthorpe and the west, is visually prominent with very little screening. Railways linking the coastal settlements and industrial complexes are highly visible as they traverse the landscape in several directions.

In this open, expansive landscape, existing woodland blocks have an enhanced visual presence offering an important compositional role and providing local variation of scenery. Within this landscape there are pockets which have retained many of their pre-enclosure characteristics and show greater visual variety and a stronger sense of place.

The most extensive local landscape type is the Open Undulating Farmland that lies on the higher land abutting the Wolds, sloping to the Flat Open Farmland of more low-lying coastal areas. This landscape type is characterised as being open and arable, with long distance views. Wooded Farmland with Historic Influences is distinguished by the relatively higher disposition of tree, woodland and hedgerow cover and historical influences in the area.

Open Undulating Farmland – Barrow upon Humber, Goxhill, Thornton Curtis, Ulceby, Wootton



Key Characteristics

- i) Gently undulating terrain dipping towards the Humber.
- ii) Larger settlements are concentrated to the north near the Humber Estuary while villages are scattered, situated on the elevated drier land of the Wolds dip-slope.
- iii) Some traditional farm buildings remain although large-scale sheds are common.
- iv) Large, intensive arable fields bounded by robust clipped hawthorn hedges although some degraded and with gaps.
- v) Some roadside hedge planting near to transmission lines as a mitigation measure.
- vi) Landscape is open and sometimes exposed due to the scarcity of woodland blocks. Trees are commonly grouped with farm buildings or nearby as shelterbelts, or occasionally present in hedgerows.
- vii) Ditches are common and create strong linear features when associated with the roadside or field boundaries.
- viii) Simple, peaceful landscape is interrupted by pylons that are often a dominant element, transport corridors and industry viewed in the distance.
- ix) Urban clutter such as the proliferation of signs or fencing along field boundaries are common features.

- x) Large sheds associated with airfield industry sit intrusively in the landscape.

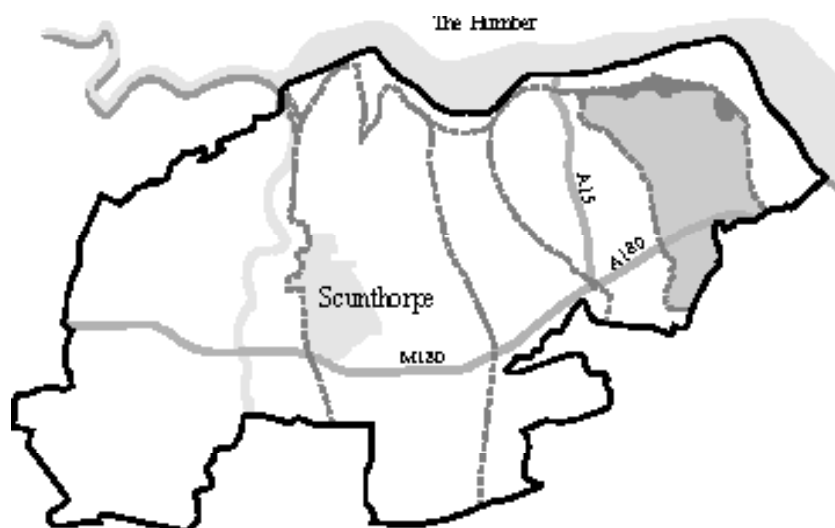
Geographic Location

The western boundary abuts the Lincolnshire Wolds along the 30 to 40 metre contours. The northern boundary is indistinct extending from Barton upon Humber to East Halton, the landscape type extending to the North Lincolnshire boundary encompassing Kirmington in the south. The eastern boundary is also indistinct, following extending from East Halton to the periphery of South Killingholme.

Influences

This gently undulating landscape has formed on Cretaceous chalk that dips eastward, overlain with glacial deposits of predominantly boulder clay with pockets of sand and gravel, which form the parent material. Soils, though not all particularly fertile, have been extensively cultivated to produce the present landscape.

Flat Open Farmland – North of Barrow upon Humber to North End, East Halton Beck



Key Characteristics

- i) Flat, expansive and somewhat vacant landscape is interrupted by the edges of Barrow upon Humber and Goxhill.
- ii) Traditional farm buildings present although large scale, imposing barns made from modern materials are often associated.
- iii) Open, low-lying arable farmland with a scarcity of woodland blocks.
- iv) Trees concentrated around farm buildings or occasionally present in hedgerows.
- v) Landscape is unified by the large rectilinear fields, well defined hedgerows and long straight roads.
- vi) Hedgerows are either well managed and tightly clipped or very discontinuous with ditches being the defining boundary element.
- vii) Farmland appears sterile in places with little species or structural diversity.
- viii) Most ditches, dikes and watercourses such as East Halton Beck have few associated trees, hedgerows or vegetation.

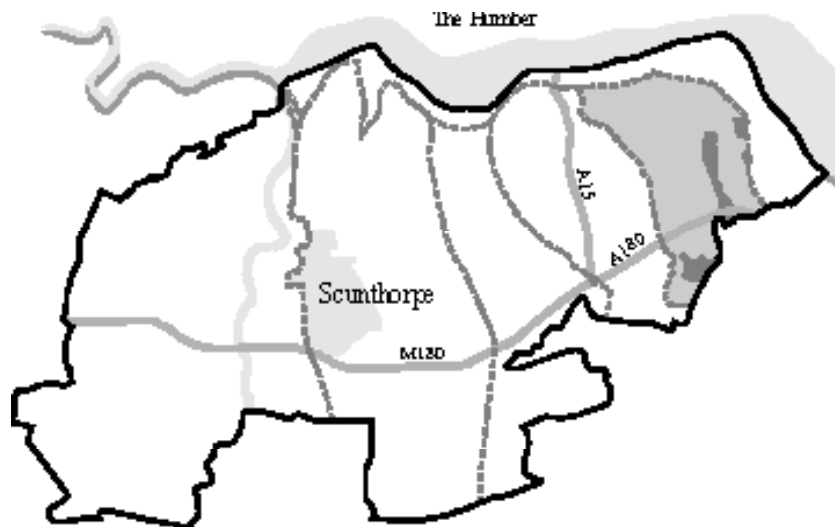
Geographic Location

There are two areas to this local landscape type that extend inwards from the northern boundary of the Lincolnshire Drift. A strip north of Barrow upon Humber to North End and an area north west of East Halton surrounding East Halton Beck, typically below the 5m contour.

Influences

This landscape type has formed on Cretaceous chalk overlain with estuarine alluvium deposits which have given rise to poorly drained heavily gleyed soils producing a flat terrain, now of high agricultural value due to extensive drainage modifications. The low-lying land is under continual threat of flooding and this has inhibited significant growth of rural settlements, the boundary often delineated by settlements exploiting higher drier land.

Wooded Farmland – East Halton, Kirmington, Thornton Abbey, Ulceby Junction



Key Characteristics

- i) Gently undulating wooded landscape, elevated around Kirmington where abutting the Wolds.
- ii) Settlement generally scarce, in the form of tightly nucleated traditional villages and Thornton Abbey. Villages have traditional buildings, with brick and pantile the vernacular.
- iii) A few farmstead clusters on the periphery of settlements. Traditional farm buildings with medium-sized barns.
- iv) Mixed woodland at Kirmington is principally of planted origin. Skitter Beck and East Halton Beck support some semi-natural carr woodland, and other woodland is of semi-natural origin.
- v) Pockets of arable farmland and pasture with sheep grazing.
- vi) Peaceful, attractive unified setting with internal diversity and localised enclosure. Strong rural character with lakes, ditches and streams and few detracting elements.
- vii) Close ecological and historic associations such as historic sites, parkland, mature tree groups, irregular small fields, mixed hedge and field ponds.
- viii) Well matured, predominantly broadleaved species.
- ix) Some hedgerows are overgrown and ditches have been neglected.
- x) Transmission lines traverse woodland north of Ulceby and impact the quality of views out to open landscape.

Geographic Location

This local landscape type occurs in four locations: the area surrounding Thornton Abbey extending southwards along the valley to Ulceby junction; the area surrounding Kirmington at the North Lincolnshire boundary; and two areas along the eastern Lincolnshire Drift boundary encompassing part of East Halton and the periphery of North Killingholme.

Influences

This area has an underlying geology of chalk overlain with glacial till deposits of boulder clay to produce a gently undulating landscape. The chalk outcrops in the south around Kirmington producing thinner soils. This landscape has developed because it has either been protected or deemed unsuitable for intensive farming. It has either close association with the villages or historic sites, maintaining traditional landscape elements, or has been planted with woodland as part of an estate.

LINCOLNSHIRE DRIFT

PART 2: LANDSCAPE STRATEGY AND GUIDELINES

Landscape Strategy:

Seek to strengthen the landscape character of the Lincolnshire Drift through conservation of historical sites and enhancement of the agricultural landscape. Increasing broadleaved woodland cover through strategic planting initiatives and enhancing boundary treatment in the agricultural landscape should be the focus of improvement in the area. Promote the management and conservation of remnants of chalk rich grassland, ancient woodland and spring-fed natural watercourses that are generally under threat.

Open Undulating Farmland – Barrow upon Humber, Goxhill, Thornton Curtis, Ulceby, and Wootton

Landscape Strategy:

Seek to locally enhance this local landscape type through the continued protection and strengthening of hedgerows, shelterbelts and woodland blocks. Strategic woodland planting can enhance views, provide greater local variation and integrate intrusive elements into the landscape. Seek to initiate landscape policies to protect and enhance traditional landscape elements such as farm buildings that are being degraded in extent and quality.

Landscape Guidelines:

The percentage of woodland cover can be increased significantly to mitigate the impact of infrastructure and industry, especially on open, elevated ground next to the A180 and to screen the large sheds associated with airfields.

Apply landscape design principles in the siting, scale and edge treatment of new woodland planting.

Encourage woodland planting and marginal habitat creation along East Halton Beck to enhance ecology and visual presence.

Promote woodland management to re-structure excessively even-aged woodland and increase the shrub content of woodland edges to promote habitat and visual diversity.

Promote the planting of hedgerow trees to introduce an increasing degree of visual enclosure as the

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

land becomes flatter and low-lying. Also encourage hedgerow tree planting to soften views of industry and infrastructure and link wooded areas.

Encourage the retention, infilling and thickening of hedgerows, where possible linking to existing shelterbelts and woodland blocks to create wildlife corridors and enhance ditches.

Seek to conserve the distribution and form of villages and hamlets integrating new accommodation through limited infill, seeking to re-use existing redundant buildings where possible and limiting use of important village open space. Maintain the continuity of village structure and character by ensuring new buildings follow local architectural styles and use traditional building materials.

Seek to enhance the edge treatment of Barton upon Humber and Barrow upon Humber by expanding existing woodland.

Promote, enhance and introduce landscape features around rural settlements and farmsteads such as hedgerows, mature trees and shelterbelts.

New farm buildings should be sensitively designed, sited close to and in scale with existing buildings and of appropriate detail.

Conserve views to both the higher Wolds landscape and across the lower-lying coastal plain by minimising skyline interruption when siting new structures.

Flat Open Farmland – North of Barrow upon Humber to North End, East Halton Beck

Landscape Strategy:

Because of the lack of conventional rural structure, the landscape strategy for this local landscape type should be enhancement, seeking to encourage more hedgerows, hedgerow trees to integrate the built-up areas and provide localised enclosure, whilst retaining an overall sense of openness.

Landscape Guidelines:

New woodland blocks should be concentrated around settlements and farmsteads, to be of linear and geometric arrangement.

Encourage native tree planting and marginal habitat creation along East Halton Beck.

Seek to allow hedgerows to grow taller and thicker by cutting on a three-yearly cycle to increase the visual impact and ecological diversity. Where possible link to existing shelterbelts and woodland blocks to create wildlife corridors and enhance ditches.

Promote the development of hedgerow trees particularly to link woodland blocks and screen the

railway corridor

Wooded Farmland – East Halton, Kirmington, Thornton Abbey, Ulceby Junction

Landscape Strategy:

Policies should be aimed at conservation of historic character, woodland management, hedgerow renewal and management and the creation of new woodland.

Landscape Guidelines:

Existing mature tree groups within villages need to be protected and managed for future regeneration. Increase the number of specimen trees within villages, particularly along roads.

Protect existing woodland blocks and seek to strengthen those at the edge of settlements, particularly to aid the screening of industry.

Enhance marginal woodland along East Halton Beck.

Promote woodland management to re-structure excessively even-aged woodland and increase the shrub content of woodland edges to promote habitat and visual diversity.

Conserve existing hedgerows and enhance those in particularly prominent or historically significant situations, i.e. parish boundaries and along roadsides and where there is scope for improved wildlife dispersal between woodlands.

Enhance the presence of hedgerow trees, especially where it will distinguish the more intricate field pattern surrounding villages.

Seek to conserve the distribution and form of villages and hamlets limiting infill, seeking to re-use existing redundant buildings where possible and restricting use of important village open space.

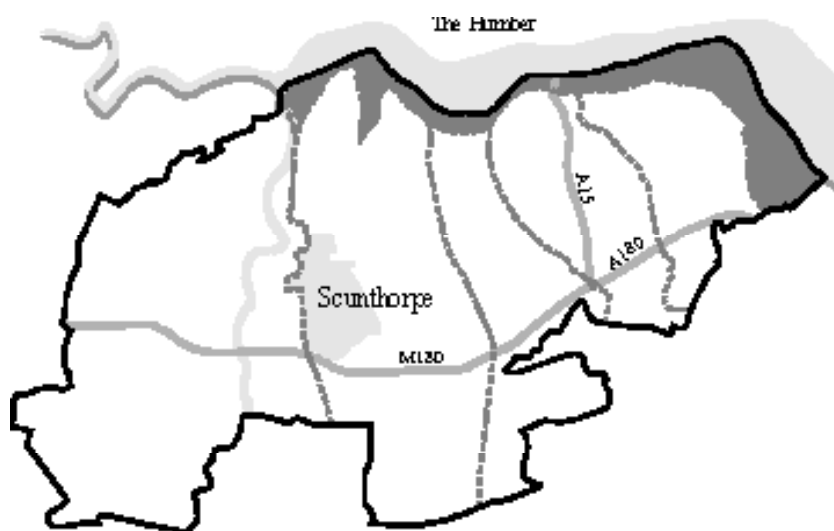
Maintain the continuity of village structure and character by ensuring new buildings follow local architectural styles and use traditional building materials.

Seek to protect archaeological interest from damage.

Encourage the promotion of marginal habitat creation along East Halton Beck. Promote profile re-modelling and ecological enhancement of man-modified watercourses such as Skitter Beck.

HUMBER ESTUARY

PART 1: LANDSCAPE CHARACTER



Key Characteristics

- i) The Humber Estuary is a flat, expansive, low-lying, estuarine landscape.
- ii) Visual presence of the Humber itself is often slight, owing to the low-lying nature of the surrounding farmland and the visual obstruction created by flood alleviation berms.
- iii) The sky and open views dominate, with ever-changing character due to tidal influences.
- iv) Mudflats and salt marshes form where flood embankments allow, with internationally important wetland and coastal habitats.
- v) A predominantly reclaimed, formerly intertidal landscape of rectilinear, mainly arable fields on fertile well-drained soils, often unbounded, with dikes, drains and embankments characteristic.
- vi) Hedgerow and tree cover is limited, although occasional dense mature woodland blocks break up views and are visually prominent.
- vii) Urban and industrial complexes are significant. Away from the settlements there is a sense of remoteness and isolation.

Geographic Location

The Humber Estuary is one of the largest estuaries in the country draining approximately one fifth of the area of England and has a maximum width of approximately 14km at its mouth. Geographically, the estuary can be divided into two sections, the 'inner' and 'outer' estuary, situated up-stream and

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

down-stream of the point where saline intrusion ceases, approximately at the position of the Humber Bridge, some 45km inland. The boundaries of the regional landscape character area within North Lincolnshire are, in places, delineated by the high floodberms that run parallel to the estuarine margins and, in others, they extend inland, usually to a boundary approximated by the 10m contour. The western boundary is the point where the estuary narrows, near Blacktoft sands, immediately to the west of the confluence of the Rivers Trent and Ouse. The seaward boundary extends to South Killingholme Haven at the North Lincolnshire boundary.

Physical Influences

The Humber Estuary is a recent geomorphic feature, its present form having been created since the last ice age by processes that occurred during the late Quaternary period. At its maximum the ice advanced along the eastern edge of the Wolds plugging the mouth of the estuary and impounding a large lake over the Vale of York and the Goole and Crowle Lowlands. In the post-glacial period this lake, now unplugged, discharged eastward, through a gap approximately at the position of the Humber Bridge, across the muddy boulder clay wastes. It formed a deep channel with a wide shallow valley flowing out into the North Sea, which at this time was dry. As the sea level rose, the wide valley became flooded and the estuary slowly developed, so that around 6000 years ago the estuary's current form was largely established.

Many of the poorly drained alluvial soils around the estuary are now of high agricultural value. This is largely due to the extensive drainage improvements that were carried out over the past few centuries, including the cutting of new drainage channels, enlarging and diverting of existing watercourses, construction of flood alleviation berms, sluices and installation of pumps. Soils of the area were also extensively modified from the mid-18th century onwards by the practice of 'warping' i.e. the seasonal impoundment of tidal silts. This practice owed much to the influence of Dutch engineers. Warping increased the fertility of the land such that most of the land close to the estuary is now of Grade 1 and 2 status and is used for arable, root crop and market garden production.

Although warping is no longer practised, the drains remain useful for land drainage and are still locally prominent by virtue of their raised grassed flood defence embankments. It has been estimated that around 78% of the estuary's original salt marsh has been converted to agricultural production in recent centuries, although a substantial area has been preserved. In addition over 5000 hectares of inter-tidal wetland has been reclaimed.

Historic and Cultural Influences

The Humber Estuary has provided both a resource for settlement and industry and a means of communication and trade for several thousand years. This is reflected in the presence of approximately eleven scheduled archaeological sites and monuments falling in this Humber Landscape Character Area within North Lincolnshire.

Tidal erosion has exposed archaeological finds suggesting considerable human activity during prehistoric times. Of these by far the most important are the Bronze Age boats and several log boats that have been discovered on the Humber foreshore. These boats have contributed much to the knowledge of early boat building in north west Europe. Additional archaeological and palaeo-ecological evidence suggests that early settlement clustered around the higher land above the estuary. These elevated and drier positions allowed exploitation of the low-lying surrounds and with gradual clearance of the woodland allowed the development of pastoral and small-scale agriculture. By the late Iron Age a major settlement had developed at South Ferriby.

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

The Humber was a northern frontier of the Roman Empire for some 20 years (AD 50 to 70), before a northward push was made. This led to the development of Ermine Street (now the B1207) which carried trade to the ferry at Winteringham. New Romano-British settlements grew up along the Humber exemplified by the Old Winteringham Roman Settlement which took advantage of the new trading routes, now a Scheduled Ancient Monument. By the 3rd and 4th Centuries the area was densely populated and wealthy.

Traces of medieval cultivation and early settlement are evident around North Killingholme with 'ridge and furrow' lines visible within the fields and surrounding archaeological sites from this period. There are earthworks of the deserted village of Lobingham, recorded in the Domesday Book. North Killingholme has two moated sites that are Scheduled Ancient Monuments at Manor Farm and North Garth, the latter with associated enclosure. Manor Farm and Baysgarth Farm at East Halton are similarly moated sites and Scheduled Ancient Monuments, the latter with associated earthworks.

The Humber continued to play an important role in the development of trade and commerce throughout the medieval period and contributed to the growth and prosperity of a number of market towns. The 16th and 17th Centuries saw the fortunes of many of the market towns begin to fluctuate. The reasons for this included a decline in water-borne trade, competition between market centres, localised famines or epidemics and improved land-based transport and communication. Selective urban growth continued during 17th century often favouring those towns with access to water communications. Work was commenced during the 1630s by Sir John Monson to build the Ferriby Sluice to control the flow of water within the Ancholme Valley. The structure was seen as an extreme measure leading to animosity within local villagers and the sluice was subsequently destroyed. It was not until the late 18th century that the sluice was rebuilt and the River Ancholme was finally tamed and the sluice is now a Scheduled Ancient Monument.

In the 18th century, widespread enclosure and improvements in farming methods significantly increased agriculture productivity in the region. Extensive drainage improvements and warping brought most of the soils to Grade 1 and 2 status and the area prospered.

Erosion of the older patterns of urban development began in the 20th century with the spread of industry and the establishment of the port, oil storage and chemical industries at North Killingholme and along the 'South Bank'. Farming intensification has been evident in the last 40 years and more recently, farm diversification.

Settlement and Buildings

Settlement near the Humber Estuary has traditionally been restricted to the higher drier land beyond the boundaries of this regional landscape character area. With improvement to flood defences, development has grown in association with industrial and shipping activity along the estuary.

Barton upon Humber which lies on the character area boundary, was a late Saxon planned town that expanded in response to the abundant clay resource, becoming home to the early English brick industry and tileries. More recently some smaller settlements have developed, such as New Holland and Barrow Haven, which are in a linear arrangement extending along roads from the estuary to larger inland settlements. South Ferriby is a nucleated settlement lying at the foot of the Wolds, exploiting the slightly elevated position and proximity to the mouth of the River Ancholme. Settlement here grew from the water-borne trade generated in this locality and following the drainage improvements following the construction of the Ferriby Sluice.

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

Farmsteads tend to be scattered throughout the area but are more common north of Goxhill where they are distributed along the network of roads. Other areas, such as north of Winteringham and The Flats, are less accessible and have a few isolated farmsteads.

Industrial complexes are common around the Humber, the most significant being the South Humber Bank for its scale and impact on the surrounding countryside. Chemical and cement works, such as that at South Ferriby, are also present and large in scale. The proximity to the clay resource at Barton upon Humber is evident in the many buildings built from local red brick and pantile materials. Proximity to the coast also results in the distinctive use of cobble and brick-cobble materials. In a local context, concrete sea defences, former military installations and lighthouses, combine to create a coastal vernacular, significant on the South Bank.

Landcover and Wildlife

The Humber Flats and Marshes is an internationally important site of great nature conservation interest and has been recognised by a range of national and international designations. These designations include Sites of Special Scientific Interest (SSSIs), a Ramsar site which classifies the estuary as a 'Wetland of International Importance' and almost all of the mudflats are Special Protection Areas (SPA) under a European Community Council Directive on the Conservation of Wild Birds. Although the estuary edge supports much industry and urban development, and receives high inputs of agricultural chemicals by way of its feeder rivers, the extent of mud and the volume of through-flow mean that a rich invertebrate fauna can still be supported.

The Upper Humber SSSI within North Lincolnshire forms part of an area notable for its important feeding and roosting sites for large numbers of waders and wildfowl, supporting in excess of 10,000 ducks and geese and 50,000 waders. Features along the estuary include relict lines of saltmarsh and reedbed vegetation along tidal channels, marshy grassland and, significantly, water-filled clay pits around Barton. These are mosaics of open water and extensive stands of reed, with intervening rough grassland and scrub of particular note for its breeding bird community, with SSSI status. To the west The Grues SSSI extend from New Holland Mere and comprise areas of saltmarsh that feature drainage channels and borrow pits together with intertidal mudflats of ornithological value. The North Killingholme Haven Pits, situated on the South Bank are a further SSSI, locally and nationally important for their large saline lagoons differing in size and salinity. These have an exceptionally rich fauna with many rare invertebrates and are significant as roosting and feeding grounds for visiting waterfowl, especially waders.

Above the high water mark, most land is of lesser conservation value, having been subject to extensive industrial development or agricultural improvement. Within these areas, however, many features of local ecological importance persist. The fields of Winteringham and Sites of Nature Conservation Interest surrounding Goxhill Haven play a role in estuarine ecology, supporting roost sites for wintering waders and waterfowl. Landscape surrounding historic villages still maintain traditional elements and Sites of Nature Conservation Interest have been designated at the fields and field ponds at East Halton and surrounding the Old Vicarage at North Garth. There are also sites at the railway sidings at North Killingholme and at South Killingholme.

Woodland cover is relatively sparse but there are a few blocks of medium-sized, regularly shaped deciduous woodland on the more elevated land, usually in linear form as shelterbelts associated with farmsteads. Regular medium-sized shaped blocks of mixed woodland are associated with the South Bank industrial complex where coniferous planting offers a greater element of all-year round screening. The woodland at Burkinshaw's Covert on the periphery the South Bank industrial area has been designated a Site of Nature Conservation Interest. Some semi-natural woodland and pasture surrounds historic villages and the naturally regenerating areas of the clay pits.

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

Farm intensification has led to the loss of trees, hedgerows and woodland. Hedgerow loss in some areas has been significant and where hedges remain, they tend to be closely clipped. Hedgerow trees become more common on higher land. The man-modified watercourses, drainage ditches and dikes have little associated vegetation, with little ecological value.

The River Ancholme, Land Drain and West Drain at South Ferriby are adversely affected by saline intrusion, primarily thought to be ingress through the tidal structure during lock operations. This can upset the ecological balance of the river and cause fish mortality. Presently the number and diversity of fish species along West Drain, Winterton Beck, the Land Drain and certain reaches of the Old River Ancholme is poor. This is also due to other contributing factors such as the high nitrate levels from agricultural run-off causing eutrophication of watercourses.

The Changing Countryside

This is a landscape that has evolved continuously over the centuries in response to changing environmental and farming conditions and this dynamic situation continues. The main pressures for change today come from the demand for industrial development in this highly strategic location in relation to European trade. This pressure has increased the extent and scale of infrastructure, such as transmission lines and roads. The nature of the landscape means that new building and structures will be difficult to conceal and may be visible over long distances.

Change also results from natural coastal and estuarine processes. There is considerable interest in the future development of such complexities, but there is some concern that rates of silt deposition in the estuary may be reducing so that the levels of mudflats and salt marshes will not be renewed. This will have potentially significant consequences if sea levels continue to rise resulting in an increased risk of flooding. This is further exacerbated by the age of many of the estuary's flood defences and their deteriorating condition. Current management plans for the estuary seek ways to reconcile these threats and in some circumstances recommend policies of 'managed retreat', a policy which has little precedent in Britain.

Within the agricultural landscape, farm intensification has led to larger field sizes resulting in a loss of tree and hedgerow cover, increased modification of watercourses and extensive drainage of fields. More recently, changes in agriculture have resulted from fragmentation and farm diversification displayed in poultry farming.

The intensive nature of the agriculture raises some concerns about water quality and the possible effects of effluent in causing pollution of both surface and ground water, significantly raising nitrate levels. The Environmental Agency are presently implementing a plan to reduce concentrations in the Old River Ancholme and surrounding drains by improving farming practices, working alongside MAFF. Industrial discharge is also a threat, adversely affecting the West Drain near South Ferriby, although an improvement plan is being implemented to reduce polluting effluent. Current methods of control of saline ingress are also being improved with new measures introduced where necessary.

The Humber Estuary Regional Character Area has benefited economically from improved communications as a result of the construction of the Humber Bridge in 1981. This has made the area more attractive to future development. Further expansion of the Humber Bridge Industrial Estate and development north of South Marsh Farm is possible and could have future implications for the surrounding landscape. The South Humber Bank is the principal site for future expansion for estuary related industry. Barton upon Humber is a principal growth site in terms of future housing provision with some future expansion likely to the east and west south of the clay pits.

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

A new initiative, the 'South Humber Bank Project', may result in landscape enhancement in some of the extensive industrial areas around South Killingholme. Initiated by local councils and the Countryside Commission, the project aims to devise a management plan for land earmarked for future development and its immediate surroundings, and encourage companies and local landowners to improve the environment without compromising operational requirements. The aim is to soften the overall scene rather than to attempt to screen the development, with short-term and permanent initiatives involving new woodland planting, softening of security fences, habitat conservation and creation with the introduction of lakes, ponds and marshes, field boundary management and strategic tree and hedge planting. Presently examples of reedbed management are seen here aiming to enrich the minor remnants of its former wetland character.

The Water's Edge site to the east of the Humber Bridge is also being targeted for restoration and landscape creation. The site is an area of derelict contaminated land, 86 acres in size, that is proposed to be treated and restored for use as a Sustainable Country Park with facilities for public access and wildlife conservation. The site has been used for varying industrial purposes for over a hundred years. Early clay extraction has resulted in areas of excavation, which have been infilled with waste materials largely derived from fertiliser and chemical production. Despite its present condition parts of the site form part of the larger Site of Special Scientific Interest (SSSI) Humber Flats and Marshes: Barton and Barrow. Proposals for the site include planting, the creation of new walks and cycle facilities, provision of a new pedestrian bridge, habitat creation (in accordance with the UK Biodiversity Strategy), and provision of a visitor centre/education resource centre, if funding is secured.

A team of environmental experts from the Environmental Agency are undertaking a Humber Geomorphological Study which will consider the many different processes that affect the estuary and in particular looking at the consequences of global warming on rising sea levels. The plan will help shape the Humber's flood defences for the next century. An Estuary Shoreline Management Plan has been prepared in which the Environment Agency are putting forward proposals for realignment of shoreline in the area north of Scunthorpe. This is to be put out to public consultation shortly. This could have an impact on Special Protection Areas and industrial concerns.

Additional pressures for change may include:

- i) Further industrial growth on South Humber Bank at Barton upon Humber and New Holland, including wharf areas at North Killingholme Haven, New Holland and Barrow Haven.
- ii) Recreational development of Humber riverside. Development of quiet recreation and nature conservation potential west of Humber Bridge, and general waterbased recreation and nature conservation between the Humber bridge and New Holland.
- iii) Encouragement of new permissive paths under the Countryside Stewardship Scheme.
- iv) Possible exploitation of clay reserves around Barton upon Humber and Barrow Haven.
- v) Possible pressures for land reclamation; threats from dredging, seabed sand and gravel extraction, beach replenishment, construction of hard sea defences, oil spillage, industrial waste disposal at sea, pressure for oil and gas exploration.
- vi) Protection and enhancement of wetlands and grazing marshes, and improvement of field boundary features under the Countryside Stewardship Scheme.

Visual Characteristics of the Landscape

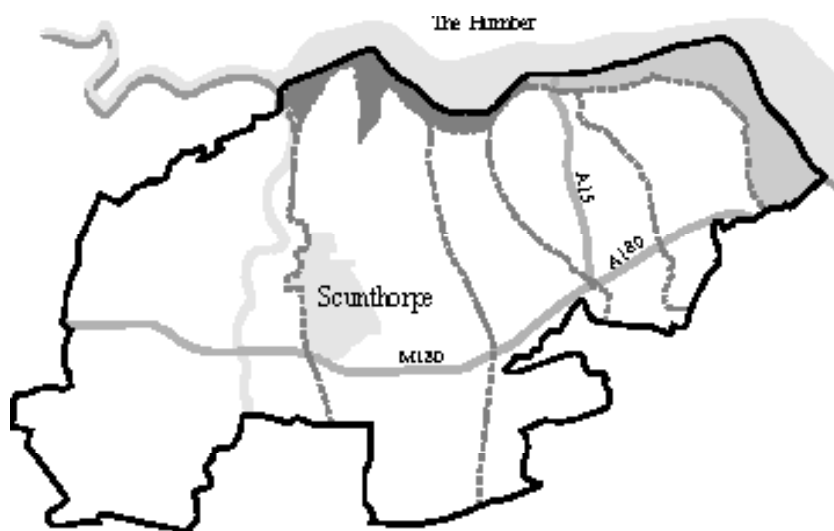
The visual representation of the estuarine corridor is sometimes clearly defined and more often less obvious. For the most part, the appearance of the landscape is open, flat and uniform. The intensive agricultural low-lying flat landscape has few distracting features to draw the eye, and where present these are often unattractive, i.e. pylons or refineries.

From large tracts of North Lincolnshire the visual presence of the Humber Estuary is remarkably slight. This is due, to some extent, to the extremely low-lying nature of the surrounding farmland and the visual obstruction created by flood alleviation berms that parallel much of its course. Views of the estuary are possible from areas such as the Lincolnshire Wolds, the Lincoln Edge, from paths along the flood alleviation berms and towns situated along the coastline such as Barton-upon-Humber, and from the Humber Bridge.

The estuary itself can present a somewhat sombre appearance, particularly at low tide when extensive areas of mudflat are exposed. In contrast, at high tide the estuary has a brighter more attractive coastal feel. The dynamics of tides, changing weather, bird-life, and visible activity on the estuary can combine to create a vibrant scene.

This simple, sometimes bleak agricultural landscape combines with industrial and urban land uses and semi-natural habitats to provide local variety. The largest tract of land within the Humber Landscape Character Area is **Flat Drained Farmland** and occurs within the 'inner' estuary and is extensively drained, occurring mainly within river floodplain. Areas of **Flat Open Farmland** occur in other low-lying areas. Variation occurs where **Waterfilled Clay Pits** are a significant feature or where landscape is dominated by industrial complexes to form **Industrial Landscape**. **Open Undulating Farmland** occurs where terrain becomes more slightly rolling inland and **Wooded Farmland** occurs where this higher land abuts the Lincolnshire Drift, has more significant tree cover and surrounds a historic line of villages. In summary, **six local land-based landscape types** have been identified within the Humber Estuary Landscape Character Area. For the purpose of this assessment, the marine environment, though visually important, has been excluded.

Flat Drained Farmland – The Flats, North Lincolnshire Edge, Read’s Island, Winteringham Ings



Key Characteristics

- i) Open, flat, low-lying arable landscape comprising a broad expanse of large rectilinear drained fields.
- ii) Settlements, farmsteads and roads are scarce with some development near to South Ferriby. Housing is of different periods and lacks unity, often sitting awkwardly in the landscape.
- iii) Farms have large modern sheds that are often imposing.
- iv) Industry around South Ferriby interrupts the expansive skyline. The view of the conveyor belt is a prominent feature as it crosses the landscape towards South Ferriby Quarry on the Wolds Villages scarp slope.
- v) Large naturalised coastal habitat at Whitton Ness.
- vi) Intensive farming has degraded the rural appearance, with field boundaries poorly defined, sometimes as an open ditch. Hedgerow remnants are well clipped and with gaps.
- vii) Well-kept ditches and few associated hedgerow trees are characteristic. Shrubby trees dotted in the landscape around Whiten are a distinctive feature.
- viii) Woodland blocks within this local landscape type are scarce, although elevated slopes of adjacent landscape character types lend their influence over the area.

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

- ix) Unity of the simple, remote, flat landscape is influenced by the dominant transmission lines to the south.

- x) Views of the Humber Bridge and coastal activity.

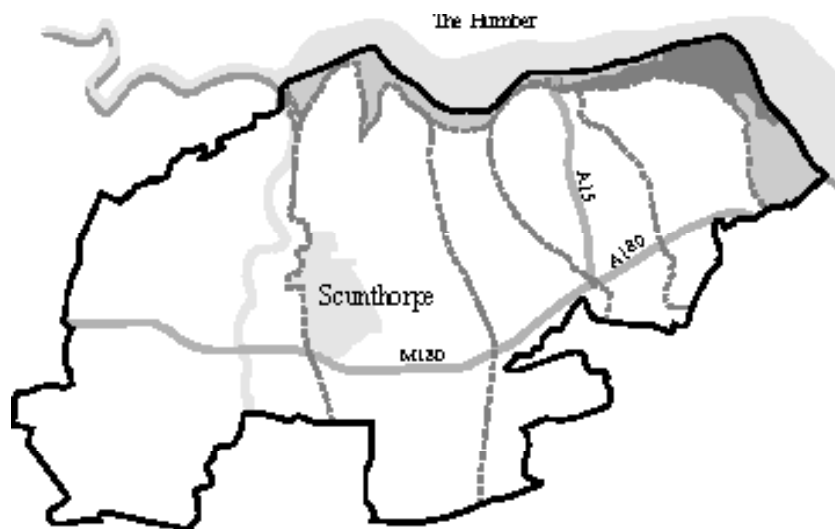
Geographic Location

Occupies two positions along the 'inner estuary.' The Flats surround the eastern side of the confluence of the rivers Ouse and Trent. The other area extends from the north of the Lincolnshire Edge, east of Whitton to the Winteringham Ings in the east, encompassing Read's Island. The edge of the Flats are well defined by the scarp slope of 'The Cliff' to the south and east and rivers to the west. The western boundary of the second area is well-defined by the scarp slope of the Wolds although the southern and eastern boundary tends to be more indistinct, either merging into the flat landscape of the Vale of Ancholme or gently rising land.

Influences

Poorly drained alluvial heavily gleyed soils around the estuary have given rise to a flat landscape, now of high agricultural value due to extensive drainage modifications. The low-lying land is under continual threat of flooding and this has inhibited significant growth of rural settlements; however, the boundary of the estuarine landscape character area is often marked by villages exploiting the more elevated, drier land.

Flat Open Farmland – Barrow Haven, New Holland, Goxhill Haven



Key Characteristics

- i) Flat, low-lying open arable farmland, unified by the large rectilinear fields and straight, linear patterns made by the well-defined hedgerows, modified watercourses, drainage ditches and long straight roads.
- ii) Somewhat vacant and expansive with few vertical elements on the skyline. Wooden electricity poles are a minor element in the landscape.
- iii) Dramatic views to the Humber Bridge from certain areas, restricted from others due to the Wolds escarpment and Lincolnshire Edge.
- iv) Woodland blocks are scarce with trees concentrated around farm buildings or occasionally present in hedgerows.
- v) Poorer soils tend to increase to the north, with grazing on the marshy grassland. Some semi-natural woodland has established on these less intensively farmed areas.
- vi) The majority of farmland appears almost sterile with little species or structural diversity. Most ditches, dikes and watercourses are exposed, having few associated trees, hedgerows or vegetation.
- vii) Traditional farm buildings present although large scale, imposing barns made from modern materials are often associated. Poultry sheds are an occasional feature.
- viii) Pockets of industrial development along the estuary coast situated around New Holland, Barrow Haven and Barton upon Humber are intrusive within the open, flat landscape.

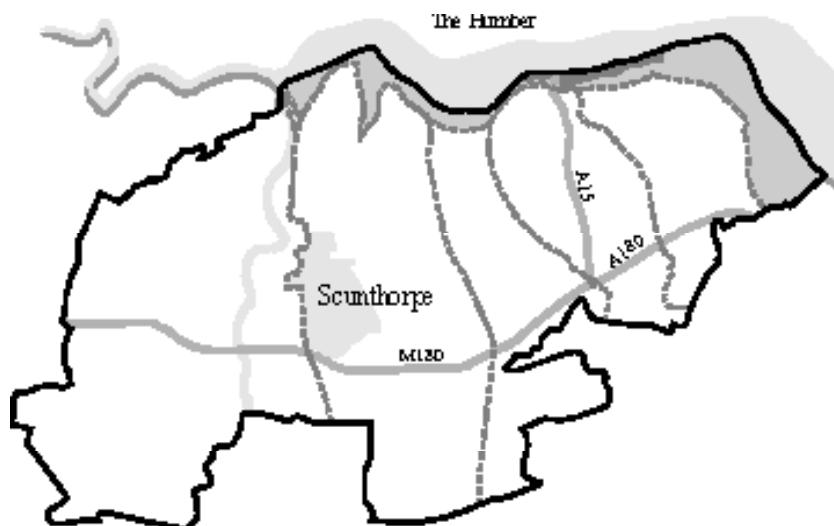
Geographic Location

The area of this local landscape type extends south of Barton Clay Pits to New Holland and inland from the coast Skitter Ness and Goxhill Haven. The southern boundary is indistinct and follows either the 5m contour or the Humber Estuary Character Area boundary.

Influences

This area has an underlying geology of chalk, overlain with estuarine alluvial deposits with pockets of till drift deposit, which has created a flat landscape of traditionally poorly drained farmland. The low-lying land is under continual threat of flooding and this has inhibited significant growth of rural settlements. However, the boundary of the estuarine landscape character area is often marked by villages exploiting the more elevated, drier land. This area has been reclaimed, drained and put to intensive agricultural use.

Waterfilled Clay Pits – Barton and Barrow Clay Pits



Key Characteristics

- i) Flat landscape, visually contained by rising terrain to the south.
- ii) Naturally regenerating areas surrounding water-filled pits are serene, contrasting with the nearby activity of industry and shipping. This, combining with derelict areas contributes to the complex character.
- iii) The openness of character in some places affords dramatic views to the Humber Bridge.
- iv) The most accessible reed-free pits of suitable size have been targeted for intensive active recreational use, such as for watersports. In others that are either established breeding and resting places for wildlife or inaccessible and reed-filled, nature conservation takes precedence. Some pits accommodate non-conflicting recreational uses such as angling with wildlife interests.
- v) Occasional old chimneys are distinguished vertical structures in the landscape and important industrial relics, merging with the naturalistic scene.
- vi) Open water combined with large reedbeds with pockets of rough grassland and scrub and narrow margin of saltmarsh are ecologically important for their structural and biodiversity as well as ornithological value. Pioneer species include birch, alder and willow.
- vii) Electricity poles are present but do not significantly detract from the overall sense of place.

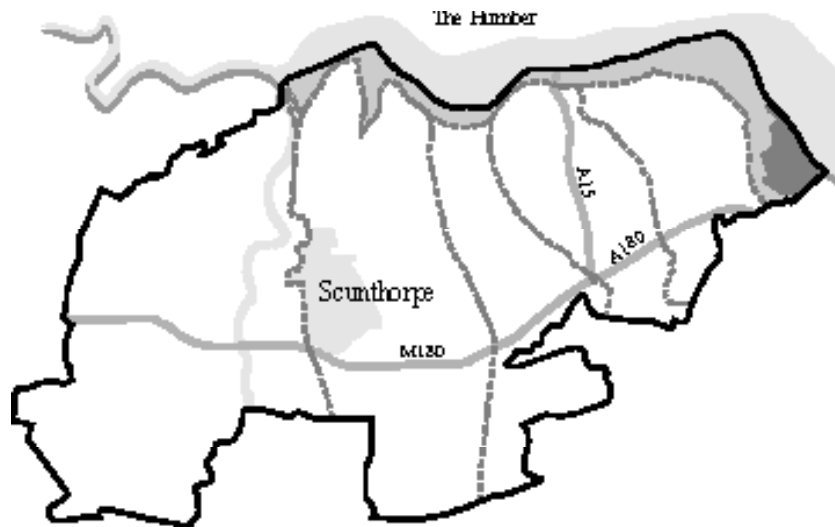
Geographic Location

This narrow area is barely 1km wide and approximately 8km long, bisected by the Humber Bridge and approach road. The high water mark of the Humber bounds the area to the north whilst Far Ings Lane forms the southern limit west of Barton Waterside, the railway extending to New Holland forming the southern boundary to the east.

Influences

This flat open landscape has developed on chalk overlain with alluvial clays. This area has principally been effected by clay extraction with most of the larger pits now infilled with water and reclaimed for nature conservation and recreational use. Some associated industry is now defunct and stands derelict next to pockets of existing industry and residential areas.

Industrial Landscape – South Humber Bank



Key Characteristics

- i) Flat landscape gently undulating to the west.
- ii) Land mainly developed for industry with pockets of flat reclaimed arable farmland, plantation woodland and naturalised coastal habitats i.e. South Killingholme Haven.
- iii) Large-scale massive structures, storage facilities, oil refineries, etc. give a sense of enclosure, limiting views. Elements combine to significantly degrade the surrounding rural landscape character.
- iv) Lighthouses and concrete coastal defences prominent along the coast.
- v) Development has resulted in a relatively chaotic landscape lacking unity.
- vi) Very strong vertical elements present in the form of chimneys, accentuated by rising steam.
- vii) Urban elements such as fences and signs proliferate and cause clutter.
- viii) Industrial traffic such as large tankers and lorries are common and create noise.
- ix) 'Green' elements are insignificant within the industrial landscape. Ornamental mitigation planting and amenity trees in grass verges are mostly out of scale with the industrial mass. A few overgrown hedges exist, possibly as small remnants of the previous landscape.

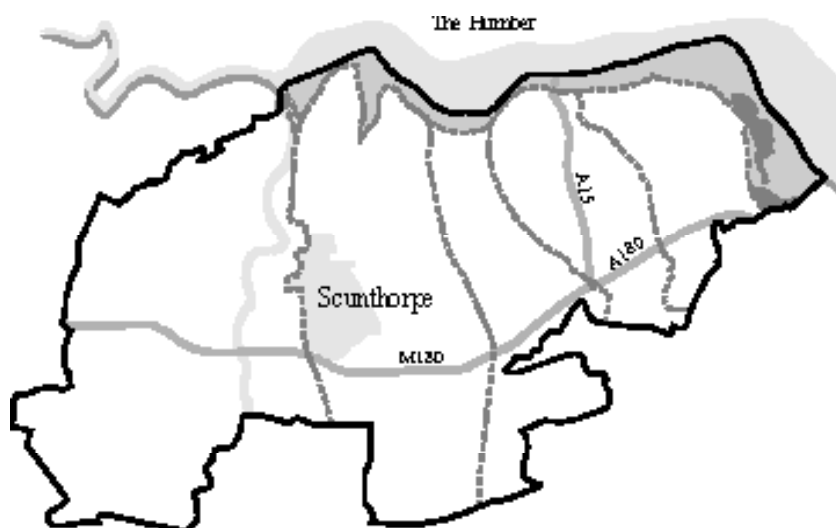
Geographic Location

This area lies on the 'South Bank' at the mouth of the Humber extending north from the North Lincolnshire boundary to Halton Marshes, lying east of South Killingholme. The Ulceby to Immingham railway bisects the area to the south.

Influences

This area has an underlying geology of chalk overlain with estuarine alluvial deposits, which has created a flat open landscape of traditionally poorly drained farmland. Recent development during the 20th century has seen industry exploit the strategic position of this area.

Open Undulating Farmland – South Killingholme



Key Characteristics

- i) Gently undulating terrain dipping towards the Humber.
- ii) South Killingholme nucleated on the A160 corridor with a few scattered farmsteads elsewhere.
- iii) Some traditional farm buildings remain although large-scale sheds are common and intrusive.
- iv) Large, intensive arable fields bounded by robust clipped hawthorn hedges although some discontinuous and degraded.
- v) Landscape is open and sometimes exposed due to the scarcity of woodland blocks. Trees are commonly grouped with farm buildings or occasionally as shelterbelts or present in hedgerows.
- vi) Ditches are common and create strong linear features when associated with the roadside or field boundaries.
- vii) The proliferation of urban elements such as fencing along field boundaries and signs are common.
- viii) Simple, peaceful landscape is interrupted by pylons, infrastructure and adjacent industry viewed in the distance.

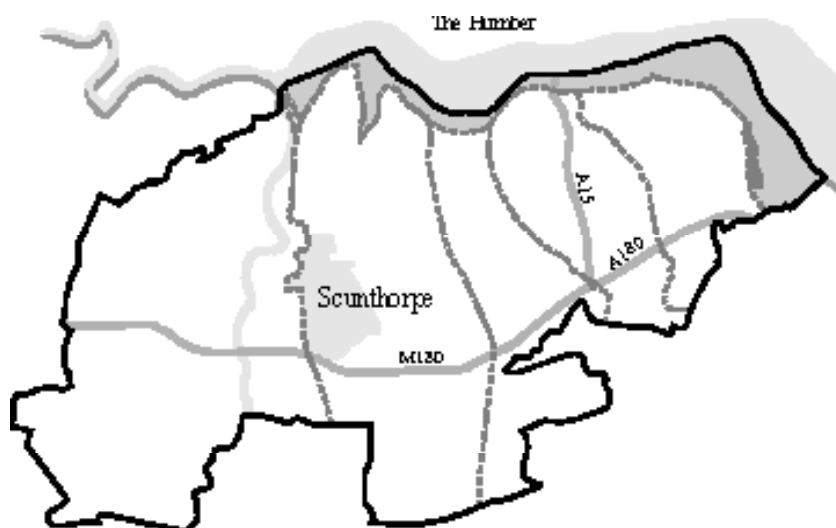
Geographic Location

There are two areas of this local landscape type. One area lies north of the South Humber Bank industrial complex and Ulceby to Immingham railway and has an indistinct north and east boundary, lying above the 5m contour abutting wooded landscape and Regional Landscape Character Boundary to the west. The southern area lies south of the railway, bounded by the North Lincolnshire boundary to the south and regional landscape character area boundary to the west. The north and east boundary distinctly follows the edge of the South Bank industrial complex and the area is bisected by the A160.

Influences

This area has an underlying geology of chalk overlain with glacial till deposits of boulder clay to produce a gently undulating landscape. Intensive farming practices and nearby industrial development has significantly degraded rural character.

Wooded Farmland – East Halton, North Killingholme



Key Characteristics

- i) Gently undulating well-treed terrain with pockets of arable farmland and small pockets of pasture.
- ii) Tightly nucleated villages with architectural styles creating attractive street-scenes. Church steeples are prominent features.
- iii) Strong rural character with brick buildings the local vernacular, occasionally with white render and with pantile or slate roofs.
- iv) Semi-natural woodland of well-matured, predominantly broadleaved species.
- v) Close ecological and historic associations with mature tree groups, historic sites, irregular small fields with 'ridge and furrow', mixed hedges and field ponds as a remnant ancient landscape within an intensively farmed setting.
- vii) Peaceful, attractive and unified character, with internal diversity and localised enclosure.
- viii) Views of chimneys from the power station in the distance detract from the rural village scene and transmission lines bisect the area.

Geographic Location

This local landscape type lies in a north-south linear strip surrounding settlements from the periphery of East Halton, encompassing North Killingholme and extending to the Ulceby-Immingham railway in the south.

Influences

This area has a geology of chalk overlain with till drift deposits underlying a flat to gently undulating landscape. This landscape has developed in association with the historic villages, thus maintaining traditional landscape elements, protected from or deemed unsuitable for intensive farming.

HUMBER ESTUARY

PART 2: LANDSCAPE STRATEGY AND GUIDELINES

Landscape Strategy:

Broad landscape strategies should be designed to enhance through restoration of the landscape. In many circumstances these strategies should be designed to mitigate specific visual impacts of developments or structures. The agricultural landscape needs to be enhanced to strengthen rural character and visual and ecological value. Coastal habitats need continued protection with opportunities for enhancement identified. In some situations these strategies may need to consider policies of 'managed retreat'.

Flat Drained Farmland – The Flats, North Lincolnshire Edge, Read's Island, Winteringham Ings

Landscape Strategy:

Local landscape elements that are diminishing through the intensity of agricultural production need to be restored and enhanced to mitigate the impact of intrusive development and improve landscape structure.

Landscape Guidelines:

New woodland planting should be targeted at a small number of sites i.e. concentrated around South Ferriby and Winteringham Ings to integrate industry into the landscape. Planting should be in medium sized regular blocks in the form of shelterbelts. Existing woodland around South Ferriby should be extended to lower-lying land in the west to integrate the edge of housing into the landscape.

Seek to encourage tree planting in the form of shelterbelts around existing intrusive farm units.

Seek to restore hedgerows and infill those existing along boundaries, drainage ditches and dikes. Improve management techniques to allow hedges to thicken and have a stronger visual presence in the landscape.

Encourage the development of hedgerow trees, especially near to intrusive transmission lines, industrial areas and edge of settlements, linking to woodland blocks where possible.

Expansion of settlements onto the floodplain should be resisted i.e. South Ferriby.

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

Ensure the outer appearance and edges of settlements are consistent. Sensitive village infill should be favoured, but only where the internal fabric can remain largely unaltered.

Any new farm buildings should be sensitively designed, sited close to and in scale with existing buildings and of appropriate detail.

Encourage the impact of intrusive farm buildings to be mitigated such as re-painting structures, or using alternative cladding of buildings.

Avoid engineering improvements to minor roads and lanes that will erode their visual characteristics.

Introduce strategies to improve the ecological value and visual presence of drainage ditches and dikes through profile re-modelling and hedge establishment. Limited naturalistic waterside planting and habitat creation should be considered along major watercourses such as along the New River Ancholme.

Incentives to utilise drought-resistant crops could reduce likely stresses on the ground water and be more favourable to habitat development.

Encourage existing landowners within the Winteringham lngs to instigate boundary improvements to mitigate the wider impacts of nearby industry.

Encourage corporations within the industrial complex at South Ferriby to undertake an environmental audit to target improvement measures.

Flat Open Farmland – Barrow Haven, New Holland, Goxhill Haven

Landscape Strategy:

The landscape strategy should focus on enhancement to mitigate and restore traditional rural features lost as a result of intensive agricultural practices of this degraded rural landscape. The strategy should focus on boundary improvements to strengthen the structure of the landscape but not compromise the essential openness of landscape character.

Landscape Guidelines:

Limit new woodland planting within the open landscape. Planting should be restricted to edge of developed areas and rural farmstead locations.

Encourage woodland planting in the form of shelterbelts, to be closely associated with farmsteads and used for screening intrusive farm units. Woodland should be of predominantly broadleaved native species.

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

Encourage and enhance woodland planting around industrial complexes and edges of settlements, linking to existing rural elements such as hedgerow trees. Planting should be in irregular medium-sized blocks.

Encourage the regeneration of the small pockets of existing semi-natural woodland and seek opportunities for expansion, particularly along the Barton upon Humber to New Holland railway.

Seek to improve the presence of hedgerow trees along roads through repair and enhancement. Most hedgerows could benefit from management allowing them to grow taller and thicker by cutting on a three-yearly, rather than yearly cycle. Scattered hedgerow trees can be encouraged to introduce more variety in the landscape.

Re-create lost hedgerows and field boundaries, particularly alongside roads, lanes, footpaths and streams.

Any new farm buildings should be sensitively designed, sited close to and in scale with existing buildings and of appropriate detail. In the design of new buildings local vernacular should be respected.

Introduce strategies to improve the ecological value and visual presence of drainage ditches and dikes through profile re-modelling and hedge establishment. Limited naturalistic waterside planting should be considered along major watercourses such as along East Halton Beck.

Waterfilled Clay Pits – Barton and Barrow Clay Pits

Landscape Strategy:

Seek to manage this area as an important resource for nature conservation and recreation, conserving areas of nature conservation value and locally enhancing selected sites. Derelict sites should be restored for future use.

Landscape Guidelines:

Encourage localised tree planting to integrate industrial activity into the landscape and provide enclosure for recreational activities.

Ensure new buildings reflect the vernacular of the area.

Maintain the isolated nature of some pits by restricting new road development.

Ensure the continued protection and conservation of the nature conservation interests of Barton, Barrow and New Holland Clay Pits.

Seek to further encourage the development of recreation/nature conservation facilities, such as picnic

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

sites, hides and interpretative facilities. The Clay Pits are relicts of an industrial past offering some scope for development as industrial archaeology 'heritage sites'.

Seek to develop opportunities for low-key active or informal recreation in the area. For example, windsurfing should continue to be permitted on certain flooded pits.

.The 'Viking Way' should be further developed as an important local resource offering wide scope for improved recreational access to the area.

Manage succession to maximise habitat potential i.e. periodically clear water of overgrown vegetation.

Industrial Landscape – South Humber Bank

Landscape Strategy:

Many grants are now available to industries with the aim of bringing about significant environmental improvements. The South Bank Humber Project also aims to encourage corporations to improve their setting and local landowners to enhance the rural setting. These incentives can be harnessed to implement a landscape strategy of restoration of landscape structure and softening the impact of industrial development.

Landscape Guidelines:

Mitigation planting should principally be mixed broadleaf in composition, in irregular large-scale blocks and linked to existing blocks and hedgerows. Where year round screening is required, conifers should be included in mixes.

Promote the protection of all existing woodland blocks and where possible, expand to increase mitigation opportunities.

Protect existing hedgerow trees and encourage re-instatement. Seek to maintain the remnants of former field boundaries.

Seek to soften security fences of industrial complexes by planting trees and shrubs.

Larger tree species that are in scale with the industrial mass should be selected for ornamental planting. Shrub planting should appear robust and substantial.

Use of a signature tree throughout the area, particularly along transport corridors may help to unify the industrial area and strengthen identity.

Where necessary, augment gapped or discontinuous hedge lines within remnant farmland. Link to screen planting and thicken to increase their presence in the landscape.

North Lincolnshire Council
North Lincolnshire Landscape Character Assessment and Guidelines

Seek to increase the recreational use of the area. Access to footpaths links along the North Sea coast in particular should be encouraged for walking etc.

Seek to conserve and manage existing wetlands in the form of lakes, ponds and marshes and identify opportunities for habitat creation.

Open Undulating Farmland – South Killingholme

Landscape Strategy:

Seek to locally enhance this landscape type through the continued protection and strengthening of hedgerows, shelterbelts and woodland blocks. Strategic woodland planting would enhance views, provide greater local variation and integrate intrusive elements into the landscape. Seek to initiate landscape policies to protect and enhance traditional landscape elements such as farm buildings that are being degraded in quality.

Landscape Guidelines:

The percentage of woodland cover can be increased significantly to mitigate the impact of infrastructure and industry, particularly around South Killingholme and along the railway. Apply landscape design principles in the siting, scale and edge treatment of new woodland planting.

Promote woodland management to re-structure excessively even-aged woodland and increase the shrub content of woodland edges to promote habitat and visual diversity.

Promote the planting of hedgerow trees to introduce an increasing degree of visual enclosure as the land becomes flatter and lower-lying, to soften views of industry and infrastructure.

Encourage the retention, infilling and thickening of hedgerows, where possible linking to existing shelterbelts and woodland blocks to create wildlife corridors and enhance ditches.

Seek to integrate new development through limited infill, seeking to re-use existing redundant buildings, following local architectural styles and use of traditional building materials where possible and limiting use of important village open space.

New farm buildings should be sensitively designed, sited close to and in scale with existing buildings and of appropriate detail.

Conserve views across the lower-lying coastal plain by minimising skyline interruption when siting new structures.

Wooded Farmland – East Halton, North Killingholme

Landscape Strategy:

The strategy for this local landscape type is one of local enhancement of landscape structure degraded through intensive agricultural production. Measures should be aimed at conservation of historic character, woodland management, hedgerow renewal and management and the creation of new woodland.

Landscape Guidelines:

Small scale woodland should be enhanced and introduced on the periphery of rural settlements, along roads and ditches, favouring broadleaved species.

Existing mature tree groups within villages need to be protected and managed for future regeneration.

Protect existing woodland blocks and seek to link smaller blocks that are out of scale in the open landscape.

Promote woodland management to re-structure excessively even-aged woodland and increase the shrub content of woodland edges to promote habitat and visual diversity.

Allow hedgerow trees to mature through careful hedge management, especially along roads or to link existing woodland.

Conserve existing hedgerows and enhance those in particularly prominent or historically significant situations, i.e. parish boundaries, along roadsides and where there is scope for improved wildlife dispersal between woodlands

Seek to conserve the small-scale field patterns distinct in this area.

Conserve the form of villages and hamlets limiting infill, seeking to re-use existing redundant buildings where possible and limiting use of important village open space.

Maintain the continuity of village structure and character by ensuring new buildings follow local architectural styles and use traditional building materials.

Maintain church steeples as prominent features within villages, resisting development that would obstruct short and long distance views.

Enhance screening of the railway extending existing woodland blocks.

Conserve the rural nature of country lanes.

North Lincolnshire Council
North Lincolnshire Landscape Character Assessment and Guidelines

Conserve existing field ponds and seek to enhance their ecological value, i.e. developing aquatic ecosystems and encouraging emergent vegetation.

Seek to protect archaeological interest from damage and protect the physical form of any non-scheduled archaeological features present in the landscape i.e. ridge and furrow and irregular field pattern.

APPENDICES

APPENDIX 1

METHOD OF LANDSCAPE ASSESSMENT

This landscape assessment has been carried out in accordance with the most recent Countryside Commission guidance published as CCP432 "Landscape Assessment Guidance". This pulls together and updates previous advice and guidance issued by the Countryside Commission on this subject, develops ideas about good practice and draws on examples of assessments that have been carried out at different scales.

The method of landscape assessment for North Lincolnshire involved a number of tasks as detailed below:

Stage 1: Desk Study

A great deal of information was supplied by North Lincolnshire Council, including pre deposit and adopted planning documents, various studies, registers for designated sites, detailed geological maps and air photo coverage dating from 1984 and 1989. Further information was obtained from the previous assessments of the area and literature reviews.

In parallel with the documentary review, a systematic analysis of mapped and air photographic material was undertaken. A number of AO acetate sheets were prepared to overlay reduced 1:25,000 maps of the district showing geology, landform, drainage, landcover, nature conservation, historic and planning information, using material collated from a number of sources. By combining the various overlays, making particular use of the geology, topography and landcover overlays, and by cross referencing these to air photographs, a series of draft boundaries for landscape character types were prepared as a basis for field survey.

Stage 2: Field Survey

The purposes of the field survey were to record the visual characteristics of the landscape and confirm or modify provisional character type boundaries.

A team of four landscape architects working in pairs carried out the field survey. Initially a general familiarisation was undertaken. With the aid of maps and field notes, an impression was built of each landscape area and type by observing it from variety of different viewpoints. A structured survey form was completed for a number of accessible viewpoints, designed to record a fixed range of information for each character type. Information was recorded in various ways, including written description, checklist, map notes and photographs. At the same time, notes were made on landscape quality, condition and management to assist later completion of landscape guidelines.

Stage 3: Analysis

On completion of the field survey, an analysis of the field information together with the results of the desk study enabled the boundaries of the landscape character types to be finalised before commencing the task of written descriptions drawing on all the gathered information.

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

Stage 4: Report Preparation

Drawing on the information gathered in Stages 1-3 and the documents 'Countryside Character Initiative Volume 3, Yorkshire and the Humber' and 'Our Landscape -Today for Tomorrow'; the draft assessment report was prepared. Following description of the key characteristics of each character area, its geographic location and the description of the physical and human influences that have led to that character, the pressures for change within the character area as a whole were identified. The subdivision of the character area into local landscape types, with descriptions of their key characteristics, influences and geographic location, was followed by the identification of a management strategy for the area as a whole and for the individual types. The strategy options include:

- a) Conservation of character (and features which contribute to that character);
- b) Enhancement of character (where character and features that contribute to that character have suffered decline or damage);
- c) Landscape creation (to form a new and different landscape).

Stage 5: Guideline Preparation

The production of guidelines follows on directly from the landscape character assessment. Drawing on fieldwork observations and the document "Our Landscape - Today for Tomorrow", the landscape guidelines describe the way in which the appropriate management strategy for each local landscape type can be translated into action on the ground.

BIBLIOGRAPHY

BIBLIOGRAPHY

- Adrian Bury Associates (no date) *Trent Valley Floodplain. Trent Floodplain Initiative*. Consultation Document produced for the Environment Agency, English Nature and the Forestry Commission.
- Boothferry Borough Council (1994) *Boothferry Borough Local Plan*. Deposit Draft. Boothferry Borough Council.
- Boothferry Borough Council (1990) *South Axholme Local Plan*. Boothferry Borough Council.
- CAG Consultants and Land Use Consultants (1997) *What Matters And Why. Environmental Capital: A New Approach*. Countryside Commission, English Heritage, English Nature and the Environment Agency.
- Countryside Commission (1996) *The Character of England: Landscape, Wildlife and Natural Features*. Countryside Commission CD ROM
- Countryside Commission and English Nature (1998) *Countryside Character. Volume 3: Yorkshire and the Humber*. Countryside Commission.
- Countryside Commission (1997) *Isle of Axholme Historic Landscape Characterisation Project*. The Countryside Commission.
- Countryside Commission (1993) *Landscape Assessment Guidance. Advisory booklet*. Countryside Commission (CCP423)
- Countryside Commission (1998) *Planning for Countryside Quality. Policy Statement*. Countryside Commission (CCP529)
- Countryside Commission (1993) *Design in the Countryside. Technical Report*. Countryside Commission (CCP418)
- Environment Agency (1996) *Catchment Management Plan. River Ancholme Action Plan*. Environment Agency.
- Environment Agency (1999) *Local Environment Agency Plan. Lower Trent and Erewash. Consultation Draft*. Environment Agency.
- English Nature (1994) *Special Protection Area and Ramsar Site. Humber Flats, Marshes and Coast*. Summary sheets produced by English nature.
- Fischler, F (10th March 1999) *Agenda 2000*. Farmer's Weekly.
- Forestry Commission (1998) *Grants for Planting Trees and Looking after Woodlands*. Forestry

North Lincolnshire Council

North Lincolnshire Landscape Character Assessment and Guidelines

Commission.

Gillespies (1996) *Our Landscape Today for Tomorrow*. Humberside County Council.

Glanford Borough Council (1989) *West Glanford Local Plan*. West Glanford Borough Council.

Glanford Borough Council (1987) *Barton Clay Pits Subject Plan*. Glanford Borough Council.

Glanford Borough Council (1991) *Wolds Villages Local Plan*. Glanford Borough Council.

Goodall, Pawley and Smith (1997) *Coversands Natural Area Heathland Re-creation Plan*. Ecological Services Limited.

Ian Carstairs Associates (no date) *Industry Agriculture and the Environment on the South Humber Bank*. Brochure commissioned by Humberside, Glanford and Cleethorpes Borough Councils and the Countryside Commission.

Lawpings Consultants (1998) *An Ecological Survey of Scunthorpe Ironstone Gulleys for North Lincolnshire Council*. The Wildlife Trust.

Leahy, K and Williams, D (1996) *North Lincolnshire A Pictorial History*. Hutton Press and North Lincolnshire Council.

Meacher, M (1999) *Countryside (Access) Speech delivered to the House of Commons on the 8th March*.

Miller, K, (1997) *The South Axholme Area of Special Historic Landscape Interest*. A report commissioned by the Countryside Commission. The Countryside Commission, Leeds.

Ministry of Agriculture, Fisheries and Food (1999) *The Countryside Stewardship Scheme. Information and how to apply*. MAFF

Ministry of Agriculture, Fisheries and Food (1999) *Countryside Stewardship in North/North East Lincolnshire, East Riding of Yorkshire and Kingston upon Hull*. MAFF

North Lincolnshire Council (no date) *The Guide*. North Lincolnshire Council.

North Lincolnshire Council (1996) *North Lincolnshire Profile*. North Lincolnshire Council.

North Lincolnshire Council (no date) *North Lincolnshire Cycle Routes*. North Lincolnshire Council, Enventure Northern Ltd and Travelwise.

North Lincolnshire Council (1998) *North Lincolnshire Local Plan Including Policies for Minerals and Waste. Pre-Deposit Draft*. North Lincolnshire Council.

North Lincolnshire Council
North Lincolnshire Landscape Character Assessment and Guidelines

North Lincolnshire Council (no date) *List of Scheduled Ancient Monuments for Unitary Authority of North Lincolnshire*. North Lincolnshire Council.

Ordnance Survey 1:50,000 sheets: 107, 112

 1:25,000 sheets: 695, 696, 706, 707, 717, 718, 719, 729

Simons, C, (1998) *Analysis for the Forces of Change Acting on the Isle of Axholme*. Report commissioned by the FRCA, Leeds.

Spencer, J, (1989) *Humberside Inventory of Ancient Woodlands*. Nature Conservancy Council.

PHOTOGRAPHS & DRAWINGS



TRENT LEVELS
FLAT DRAINED TREED FARMLAND



TRENT LEVELS
FLAT DRAINED FARMLAND



TRENT LEVELS
OPEN ISLAND FARMLAND



TRENT LEVELS
INDUSTRIAL LANDSCAPE



TRENT LEVELS
FLAT WOODED FARMLAND



TRENT LEVELS
WOODED SPRINGLINE FARMLAND



TRENT LEVELS
FLAT OPEN REMOTE FARMLAND



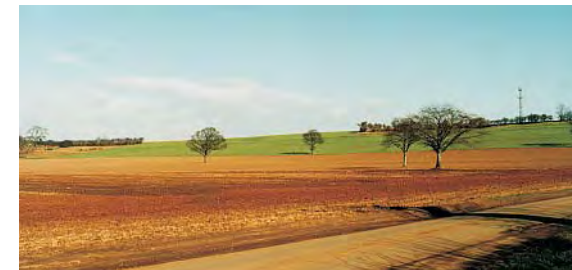
LINCOLNSHIRE EDGE
ELEVATED OPEN FARMLAND



LINCOLNSHIRE EDGE
ELEVATED WOODED FARMLAND



LINCOLNSHIRE EDGE
OPEN UNDULATING FARMLAND



LINCOLNSHIRE EDGE
OPEN FARMED SCARP SLOPE



LINCOLNSHIRE EDGE
FARMED URBAN FRINGE



LINCOLNSHIRE EDGE
HEATHY WOODLAND



LINCOLNSHIRE EDGE
WOODED SCARP SLOPE



LINCOLNSHIRE EDGE
STEEP WOODED SCARP SLOPE



LINCOLNSHIRE EDGE
INDUSTRIAL LANDSCAPE



LINCOLNSHIRE EDGE
DESPOILED LANDSCAPE



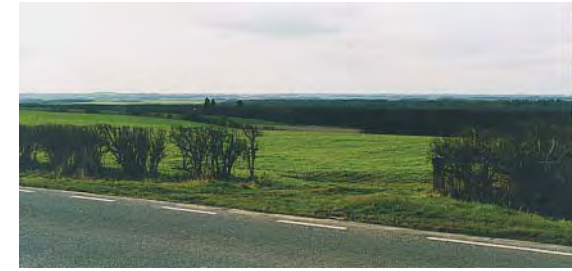
LINCOLNSHIRE EDGE
WOODED UNDULATING FARMLAND



ANCHOLME VALLEY
FLAT VALLEY BOTTOM FARMLAND



ANCHOLME VALLEY
HEATHY WOODLAND



ANCHOLME VALLEY
OPEN UNDULATING FARMLAND



LINCOLNSHIRE WOLDS
OPEN ROLLING HIGH FARMLAND



LINCOLNSHIRE WOLDS
WOODED FARMED SCARP SLOPE



LINCOLNSHIRE WOLDS
OPEN FARMED SCARP SLOPE



LINCOLNSHIRE DRIFT
OPEN UNDULATING FARMLAND



LINCOLNSHIRE DRIFT
WOODED FARMLAND



LINCOLNSHIRE DRIFT/HUMBER ESTUARY
FLAT OPEN FARMLAND



HUMBER ESTUARY
FLAT DRAINED FARMLAND



HUMBER ESTUARY
WATERFILLED CLAYPITS



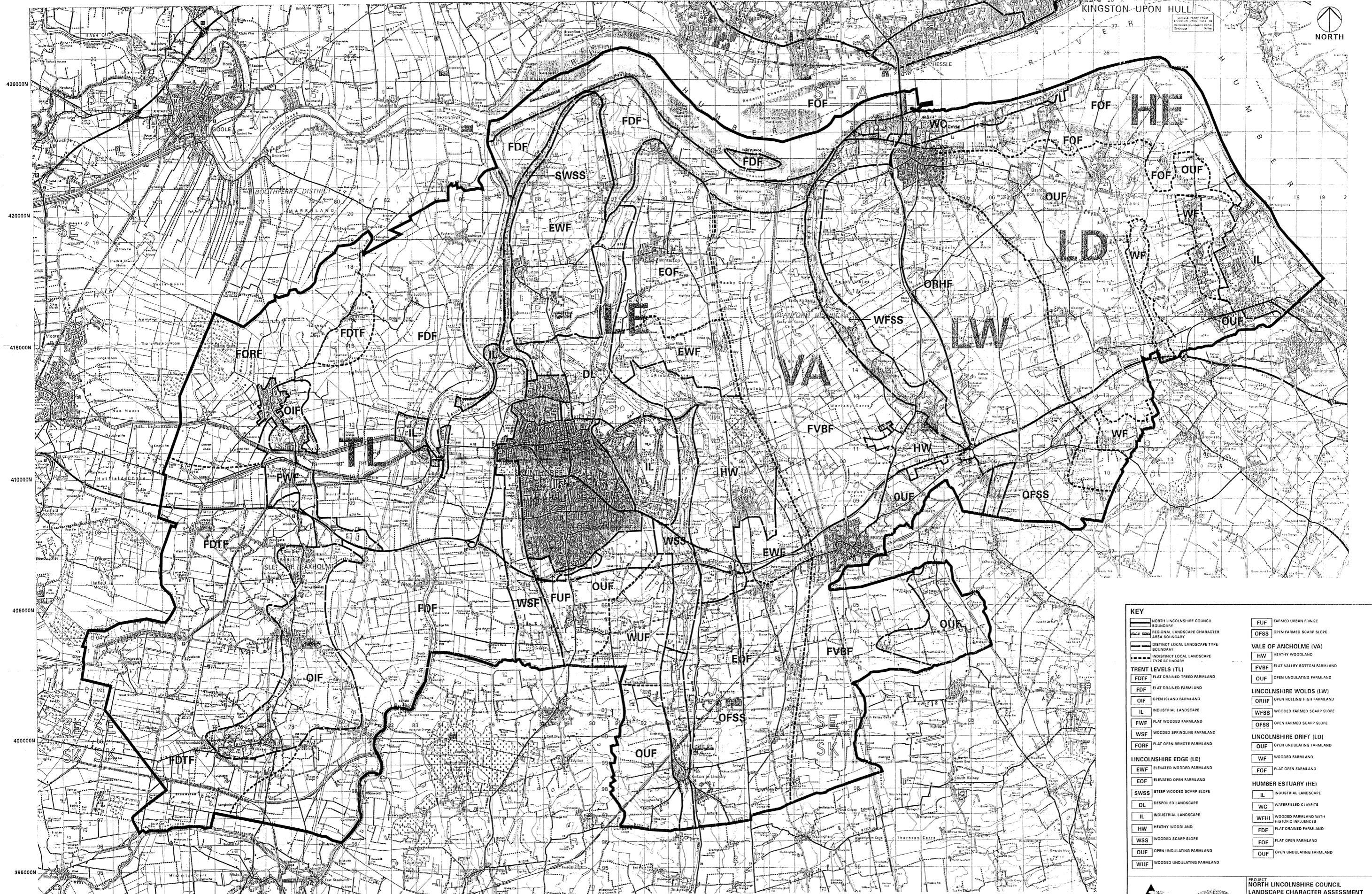
HUMBER ESTUARY
INDUSTRIAL LANDSCAPE



HUMBER ESTUARY
OPEN UNDULATING FARMLAND

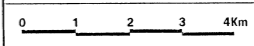


HUMBER ESTUARY
WOODED FARMLAND

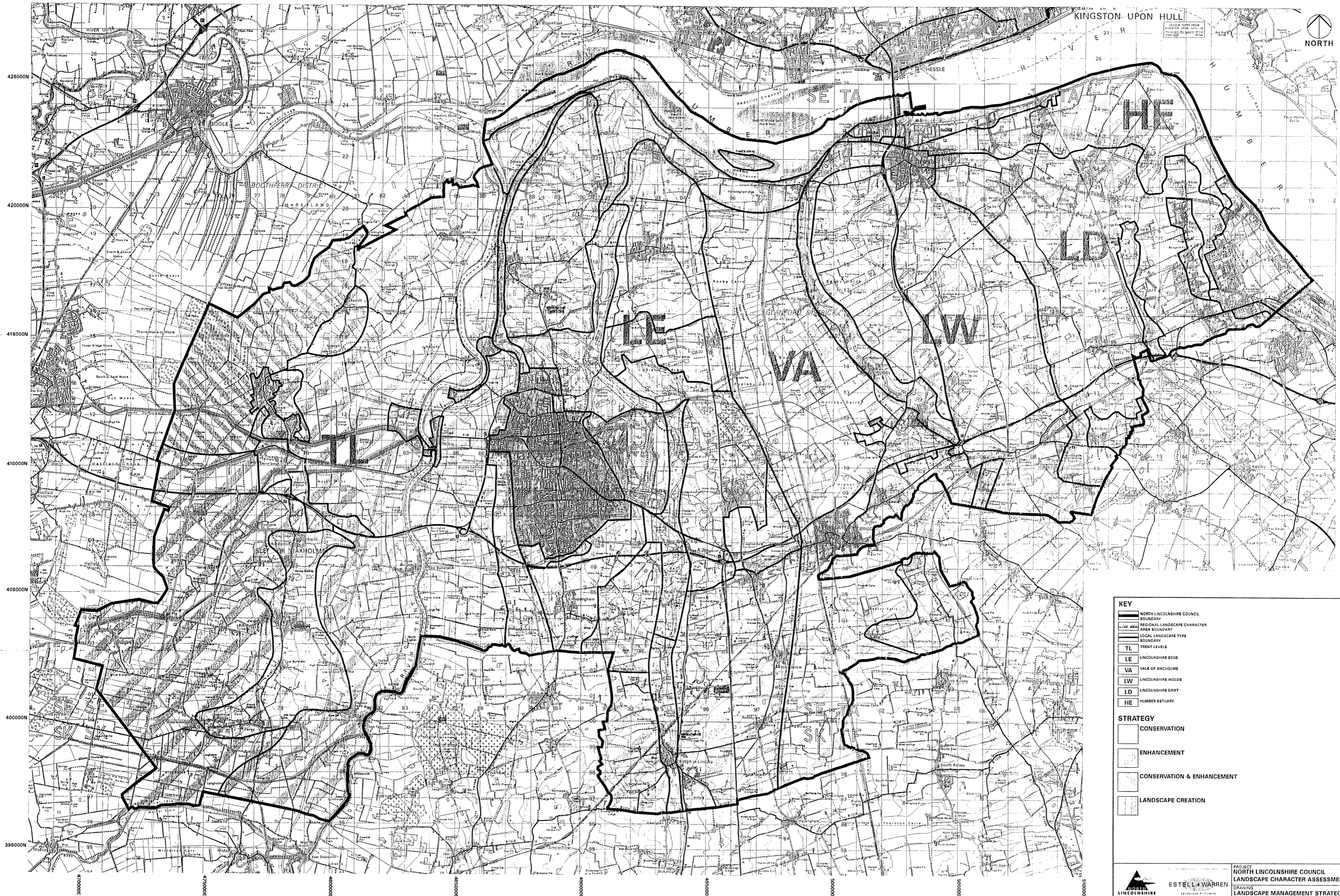


KEY	
	NORTH LINCOLNSHIRE COUNCIL BOUNDARY
	REGIONAL LANDSCAPE CHARACTER AREA BOUNDARY
	DISTINCT LOCAL LANDSCAPE TYPE BOUNDARY
	INDISTINCT LOCAL LANDSCAPE TYPE BOUNDARY
	TRENT LEVELS (TL)
	FDTF FLAT DRAINED TREETOP FARMLAND
	FDF FLAT DRAINED FARMLAND
	OIF OPEN ISLAND FARMLAND
	IL INDUSTRIAL LANDSCAPE
	FWF FLAT WOODED FARMLAND
	WSF WOODED SPRINGLINE FARMLAND
	FORF FLAT OPEN REMOTE FARMLAND
	LINCOLNSHIRE EDGE (LE)
	EWF ELEVATED WOODED FARMLAND
	EOF ELEVATED OPEN FARMLAND
	SWSS STEEP WOODED SCARP SLOPE
	DL DESPOILED LANDSCAPE
	IL INDUSTRIAL LANDSCAPE
	IHW HEATHY WOODLAND
	WSS WOODED SCARP SLOPE
	OUF OPEN UNULATING FARMLAND
	WUF WOODED UNULATING FARMLAND
	FUF FARMED URBAN FRINGE
	OFSS OPEN FARMED SCARP SLOPE
	VALE OF ANCHOLME (VA)
	HW HEATHY WOODLAND
	FVBF FLAT VALLEY BOTTOM FARMLAND
	OUF OPEN UNULATING FARMLAND
	LINCOLNSHIRE WOLDS (LW)
	ORHF OPEN ROLLING HIGH FARMLAND
	WFSS WOODED FARMED SCARP SLOPE
	OFSS OPEN FARMED SCARP SLOPE
	LINCOLNSHIRE DRIFT (LD)
	OUF OPEN UNULATING FARMLAND
	WF WOODED FARMLAND
	FOF FLAT OPEN FARMLAND
	HUMBER ESTUARY (HE)
	IL INDUSTRIAL LANDSCAPE
	WC WATERFILLED CLAYTITS
	WFH WOODED FARMLAND WITH HISTORIC INFLENCES
	FDF FLAT DRAINED FARMLAND
	FOF FLAT OPEN FARMLAND
	OUF OPEN UNULATING FARMLAND

PROJECT: NORTH LINCOLNSHIRE COUNCIL LANDSCAPE CHARACTER ASSESSMENT
 DRAWING: LANDSCAPE CHARACTER AREAS AND LOCAL LANDSCAPE TYPES
 SCALE: 1:25,000
 FIGURE: FIGURE 1 (PART A)



This map is based upon O.S. material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationary Office. Crown Copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings. North Lincolnshire Council. Licence No. LA006621. Year of publication 1992, 1994 & 1995.



KEY

- NORTH LINCOLNSHIRE COUNCIL BOUNDARY
- REGIONAL LANDSCAPE CHARACTER AREA BOUNDARY
- LOCAL LANDSCAPE TYPE BOUNDARY
- TRENT LEVELS
- LINCOLNSHIRE EDGE
- VALE OF ANCHOLME
- LINCOLNSHIRE WOLDS
- LINCOLNSHIRE DRIFT
- HUMBER ESTUARY

STRATEGY

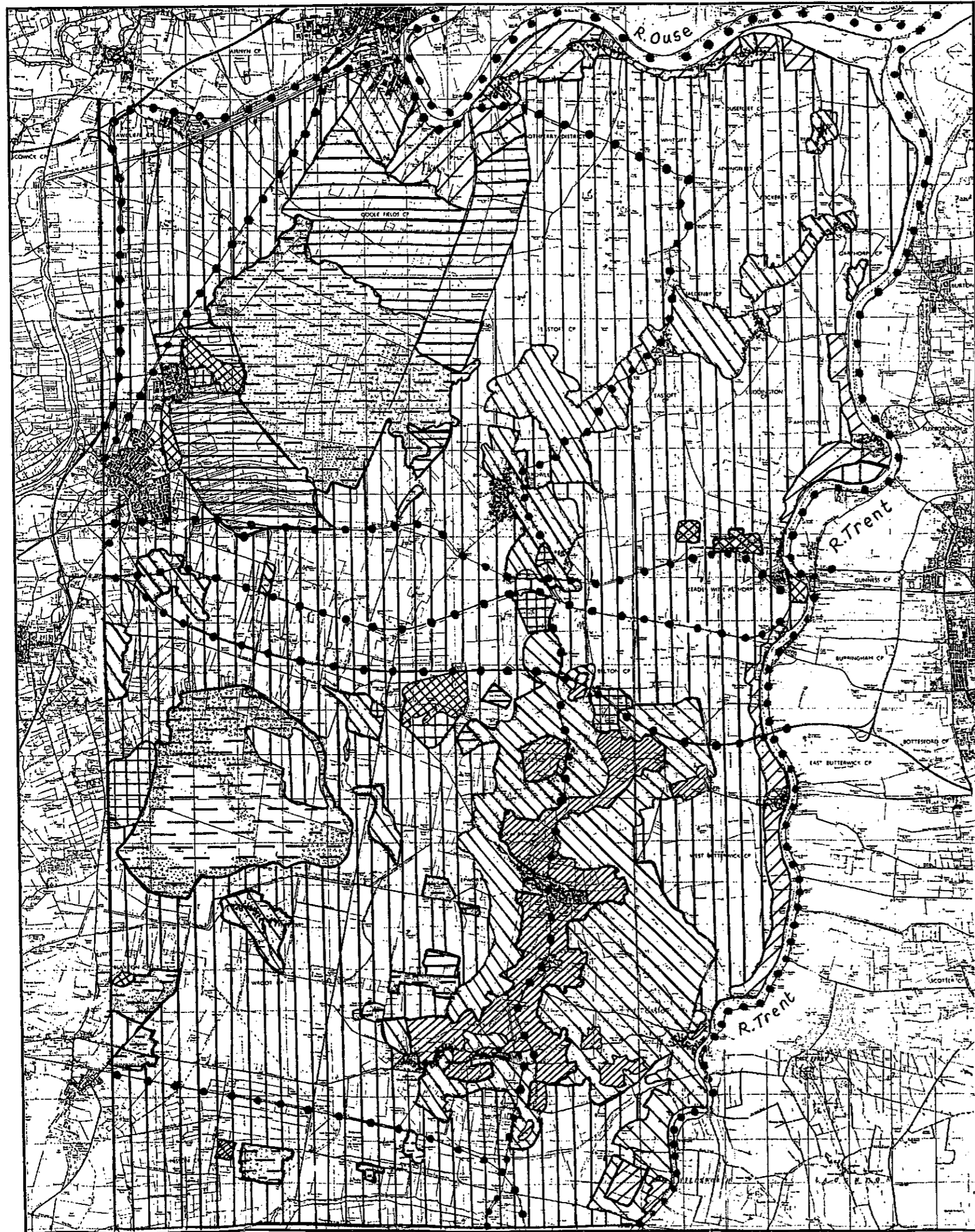
- CONSERVATION
- ENHANCEMENT
- CONSERVATION & ENHANCEMENT
- LANDSCAPE CREATION

ESTELLE WARREN
LANDSCAPE ARCHITECTS


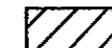
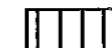
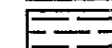
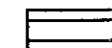

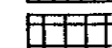

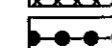
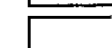
PROJECT: NORTH LINCOLNSHIRE COUNCIL LANDSCAPE CHARACTER ASSESSMENT
DRAWING: LANDSCAPE MANAGEMENT STRATEGIES

SCALE: NTS
0 1 2 3 4km

FIGURE 2



KEY

-  ANCIENT OPEN STRIP FIELD ZONE ISLE OF AXEHOLME (AOSF)
-  ANCIENT OPEN STRIP FIELD ZONE TRENT AND OUSE RIVERSIDES (AOSF)
-  RECENTLY ENCLOSED LAND ZONE (REL)
-  RAISED MIRE & TURBARY ZONE (RM&T)
-  MOORLAND ALLOTMENTS ZONE (MA)
-  DESIGN/ORNAMENTAL ZONE (PARKLANDS)
-  DESIGN/FUNCTIONAL ZONE (AIRFIELDS)
-  INDUSTRY AND COMMERCE ZONE
-  TRANSPORT AND COMMUNICATIONS ZONE: (MAJOR ROUTEWAYS SHOWN)
-  TOWNS AND VILLAGES: MAIN BUILT-UP AREAS

