Newark and Sherwood

Landscape Character Assessment

Supplementary Planning Document

DECEMBER 2013

Document Passport

Title:	Landscape Character Assessment Supplementary Planning Document
Status:	Adopted Supplementary Planning Document
Summary:	The Landscape Character Assessment (LCA) is a District- level assessment of landscape character which forms part of the wider assessment for the County. Its preparation has followed the County-level methodology and the document provides an explanation of the differences between landscapes that is based around a sense of place, local distinctiveness, characteristic wildlife, and natural features. In identifying specific Landscape Policy Zones (LPZs) and related actions the LCA will play an important role in the planning framework and in decisions over new development.
Date of Adoption:	11th December 2013
Adopted By:	Economic Development Committee

Consultation Summary:	The District Council consulted on the document seeking views from local residents, landowners, developers, town & parish councils and other interested parties for a period of 6 weeks from 3rd October and 14th November 2011. Following consideration of representations received the Council revised the document and submitted the final version to the Council's Economic Development Committee on the 11th December 2013 for adoption.
Availability of Document:	Copies of this document, the accompanying Screening Reports for the Equalities Impact Assessment (EqIA) and Sustainability Appraisal (SA) are deposited at Kelham Hall(open between 8.45 a.m. and 5.15 p.m. Monday to Thursday and 8.45 a.m. to 4.45 p.m. on Friday) and on the Council's website: http://www.newark-sherwooddc.gov.uk/spds/. In addition paper copies of the SPD are available to view at Newark, Ollerton and Southwell libraries.

If you have any questions please contact the Council's Growth Directorate on 01636 650000 or planning@nsdc.info

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1.1 Executive Summary

The Landscape Character Assessment was published in 2010. In October 2011 consultation was carried out on the document in order that it could be incorporated into the Newark & Sherwood Local Development Framework as a Supplementary Planning Document. Following the consultation further work was undertaken to address the issues raised by consultee, resulting in this finalised SPD.

1.1.1 Planning context

The European Landscape Convention (ELC) is the first international convention to focus specifically on landscape which was created by the Council of Europe. It defines landscape as:

"An area as perceived by people, whose character is the result of the action and interaction of natural and/or human factors". (Council of Europe 2000)

The ELC is the first international convention to focus specifically on landscape and was signed by the UK Government in February 2006, and became effective in March 2007. The convention promotes landscape protection, management and planning, as well as European co-operation on landscape issues. The convention applies to all landscapes, towns and villages, open countryside, the coast and inland areas, ordinary and degraded landscapes, as well as those that are afforded protection.

The Convention was reaffirmed as being part of the Defra delivery framework through the Natural Environment White Paper in June 2011.

Landscape Character is defined as:

"The tool that is used to help us to understand,and articulate, the character of the landscape. It helps us identify the features that give a locality its 'sense of place' and pinpoints what makes it different from neighbouring areas."

(Landscape Character Assessment: Guidance for England and Scotland, The Countryside Agency and Scottish Natural Heritage, 2002)

Landscape Character Assessment can be used in many situations, from devising indicators to gauge landscape change to inform regional planning, local development, environmental assessment and the management of landscapes.

1.1.2 National Planning Policy Framework (NPPF) 28th March 2012

The NPPF provides the context within which sustainable development can be met through the planning system and paragraph 7 lists the economic role, social role and environmental roles that need to be met. The third bullet point is:

- ***an environmental role*** *– contributing to protecting and enhancing our natural, built and historic environment; and, as part of this, helping to improve biodiversity, use natural resources prudently, minimise waste and pollution, and mitigate and adapt to climate change including moving to a low carbon economy.*

One of the twelve core planning principles outlined on Page 5, paragraph 17 is bullet point 5

- *take account of the different roles and character of different areas, promoting the vitality of our main urban areas, protecting the Green Belts around them, recognising the intrinsic character and beauty of the countryside and supporting thriving rural communities within it;*

1.1.3 **Newark and Sherwood Landscape Character Assessment**

The Landscape Character Assessment (LCA) is a District- level assessment of landscape character which forms part of the wider assessment for the County. Its preparation has followed the County-level methodology and the document provides an explanation of the differences between landscapes that is based around a sense of place, local distinctiveness, characteristic wildlife, and natural features. In identifying specific Landscape Policy Zones (LPZs) and related actions the LCA will play an important role in the planning framework and in decisions over new development.

Reflecting this importance the LCA has been a key part of the evidence base informing the production of the Core Strategy (CS) and the Allocations & Development Management (A&DM) Development Plan Documents (DPDs). The Assessment has been a significant factor in the making of decisions on site allocations within the A&DM DPD.

Core Policy 13 (Landscape Character) of the Core Strategy sets out that the Local Development Framework (LDF) will introduce a comprehensive landscape assessment of Newark and Sherwood which will identify the landscape character condition and sensitivity of each Landscape Policy Zone. The policy also sets out the expectation that development proposals will positively address the implications of the LPZs and demonstrate that the aims and objectives for that area would be contributed to.

The LCA offers an objective methodology for assessing the varied landscape within Newark and Sherwood and gives a greater understanding of what makes the landscape within the District locally distinctive. This is reflected through the identification of Policy Zones across the 5 Landscape Character Types represented within Newark and Sherwood, shown on Figure 1.1. The Landscape Character Assessment provides the basis for the implementation of Core Policy 13 and as a Supplementary Planning Document (SPD) of the LDF is capable of being a material consideration with within the planning process.

1.1.4 **Other Landscape Publications**

Other document's which may also be relevant to landscape issues within the District include:

- Southwell Landscape Setting (November 2012);
- Newark & Sherwood Green Infrastructure Strategy;
- Nottinghamshire Local Biodiversity Action Plan; and
- Newark and Sherwood Nature Conservation Strategy.

These documents are available to view on the District Councils website.

http://www.newark-sherwooddc.gov.uk/evbase

In addition a Wind Energy Supplementary Planning Document is, at the time of writing, under production with a Landscape Capacity Study being prepared to support this. Further information can be found through the link below.

http://www.newark-sherwooddc.gov.uk/spds/

1.2 How to use this document

This document describes the landscape character of the Newark and Sherwood District Council administrative area, which consists of 5 different County Character Areas. The report has been structured to enable users not to have to read the whole document to access the information they need, but to be able to go directly to the key information.

Each chapter of the report covers a distinct character area, and describes the broad characteristics of the area. It describes:

- The physical and human influences within the **character area**, (Refer to Appendix R for detailed Landscape History and Appendix I for soil/geology plans)
- The main factors that have brought about change in the **character area**, and considers the trends and pressures that may produce change in the future
- The native species list for the **character area**
- The visual character of the landscape for each **landscape character type**, the main Landscape Character types have been described and policy sheets included which summarise the key characteristics of each **Policy Zone**.

For example, if a user wants to know about the landscape character of an area of land south of Southwell the steps required are:

1. Refer to Figure 1 to determine the Landscape Character Area within which the site falls into (in this case the Mid-Nottinghamshire Farmlands).
2. Refer to Figure 2 the Mid-Nottinghamshire Farmlands Character Area, to check which Policy Zone the site falls into, in this case MN PZ 38. (Species listed under the Mid Nottinghamshire Farmlands list would be suitable as native planting for a site within this area.)
3. Refer to the appropriate character description for MN PZ 38 (Halloughton Village Farmlands) to obtain a summary of the field data collected about the area.

The analysis sheet describes the key criteria which have been used to define the landscape condition, which in this case is *Good"*. The Policy Sheet then describes the key criteria that have been used to define landscape sensitivity, which in this case is "*Moderate"*. These factors have been used to derive a **Landscape Policy** – in this case *"Conserve and reinforce" – actions that conserve distinctive features and features in good condition, and strengthen and reinforce those features that may be vulnerable.* Landscape actions are these listed at the base of the policy sheet, these are divided into actions relating to landscape features and built features.

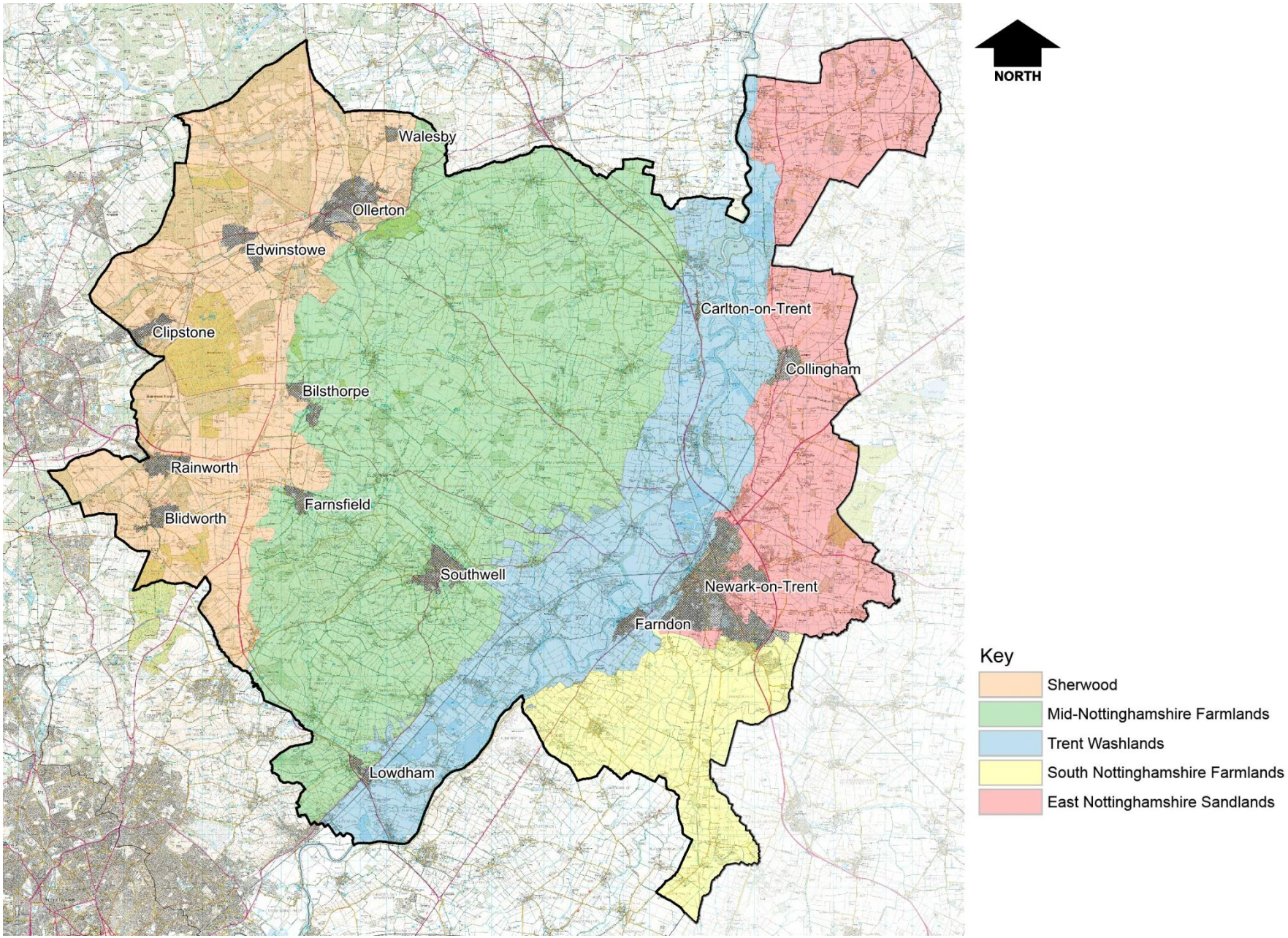

Figure 1.1 Regional Character Areas overlaid on an OS map

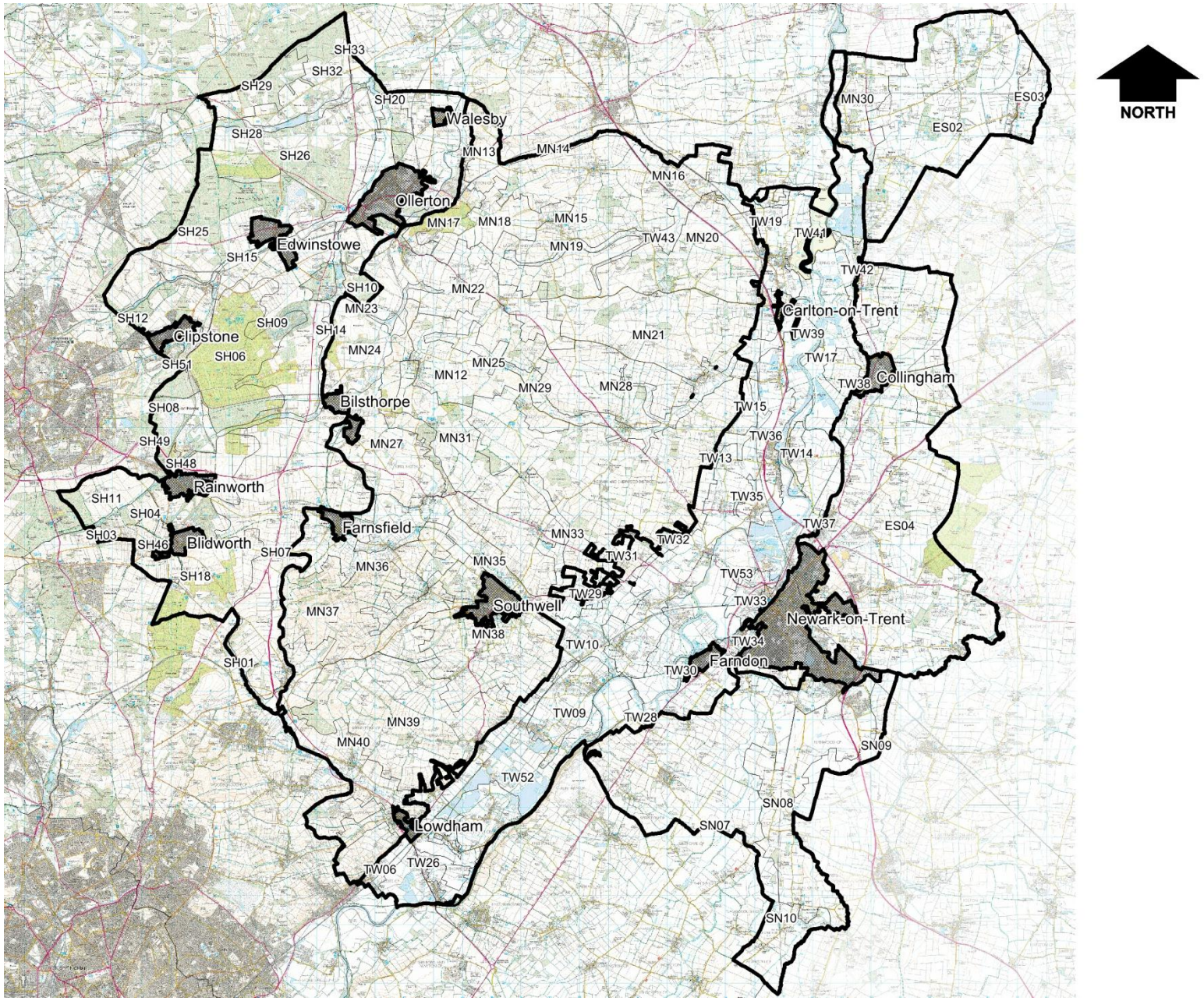

Figure 1.2 Policy Zones overlaid on an OS map

1.3 Policy Zones – Landscape Actions

For each of the Policy Zones a series of Policy sheets has been developed which detail a landscape action for each Policy Zone. The landscape actions are defined as follows:-

Conserve – actions that encourage the conservation of distinctive features and features in good condition.

Conserve and Reinforce – actions that conserve distinctive features and features in good condition, and strengthen and reinforce those features that may be vulnerable.

Reinforce – actions that strengthen or reinforce distinctive features and patterns in the landscape.

Conserve and Restore – actions that encourage the conservation of distinctive features in good condition, whilst restoring elements or areas in poorer condition and removing or mitigating detracting features.

Conserve and Create – actions that conserve distinctive features and features in good condition, whilst creating new features or areas where they have been lost or are in poor condition.

Restore – actions that encourage the restoration of distinctive features and the removal or mitigation of detracting features.

Restore and Create – actions that restore distinctive features and the removal or mitigation of detracting features, whilst creating new features or areas where they have been lost or are in poor condition.

Reinforce and Create – actions that strengthen or reinforce distinctive features and patterns in the landscape, whilst creating new features or areas where they have been lost or are in poor condition.

Create – actions that create new features or areas where existing elements are lost or are in poor condition.

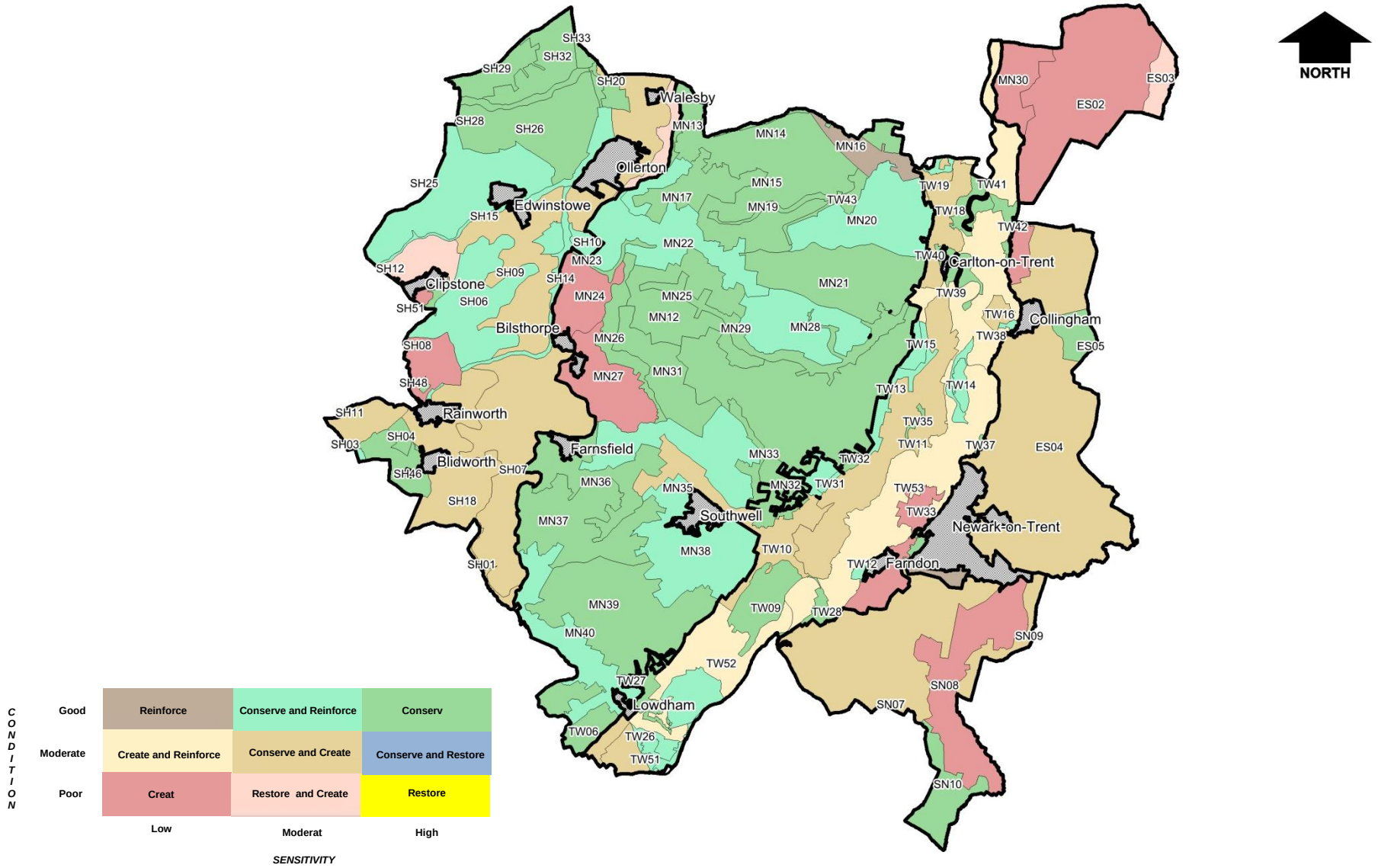

Figure 1.3 Landscape Policy Zones and Landscape Actions for each Policy Zone

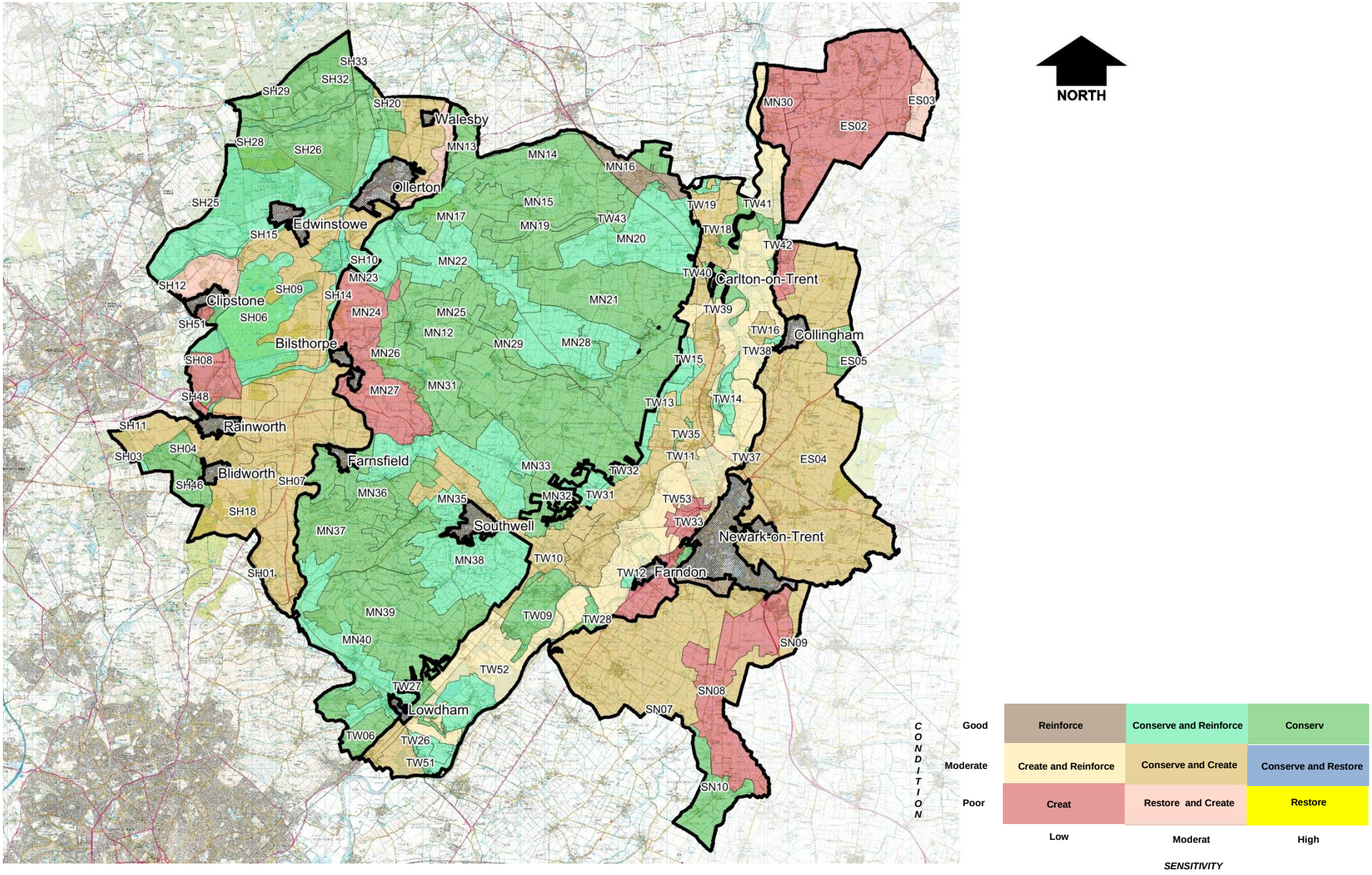

Figure 1.4 Landscape Actions overlaid on an OS map

1.4 Introduction and Methodology

When applied to the landscape, the notion of "character" is not a concept that merely concerns itself with aspects of scenic quality. The character of the landscape derives from a complex interaction of a wide range of physiological and historical phenomena. These include geology, topography, soils, ecology, archaeology, architecture, local customs and culture as well as the pattern of land use, settlement and fields. It is the varied interaction between these factors which produces the local and regional variations in character for which the English landscape is famous. The diversity of that character is a central part of our landscape heritage and vital to people's appreciation and enjoyment of the countryside.

The landscape that we see today is a product of its historical evolution, reflecting the underlying physical resource and the changing nature of human exploitation of the land. The landscape will, of course, continue to change and evolve, reflecting the changing priorities and demands that society places on it. Over recent decades, however, these priorities and demands have often degraded rather than improved the fabric of the landscape. There is now a general consensus that positive action is needed to reverse this trend, and that this should place a high value on conserving and enhancing the inherent character and diversity of our landscapes.

It is the responsibility of Local Authorities to undertake county and district level assessments of the landscape character. These assessments play an integral role not only within the wider planning framework, offering guidance from the outset with key aims and objectives to help guide development, but during the planning process itself providing a useful tool and checklist for both the local authority and the design team.

This landscape character assessment covers the District of Newark and Sherwood. It relates to the evolving landscape character assessment for the whole of the county of Nottinghamshire and other associated county wide documents including the Nottinghamshire Local Biodiversity Action Plan and the Nottinghamshire Historic Landscape Characterisation. The methodology for Nottinghamshire Landscape Character Assessment, prepared by Nottinghamshire County Council [NCC], has been used to assess the landscape character of Newark and Sherwood. A copy of the full methodology is contained at Appendix A. All information contained at the introductory paragraphs within each of the following 5 chapters is specific to Newark and Sherwood unless stated otherwise.

1.4.1 Context

Newark and Sherwood District covers two National Character Areas [NCAs] as defined by Natural England; Trent and Belvoir Vales [48] and Sherwood [49]. At a county level, Regional Character Areas [RCAs] have been defined by Nottinghamshire County Council. While these relate to the NCAs, which cover much broader areas, they do not have exactly the same boundaries and have been created using the 'Living Landscapes Project' methodology. This is a GIS based process which is not only associated with the NCA work carried out by Natural England but is an established methodology used by counties across the country, including Derbyshire and Leicestershire both of which border Nottinghamshire. A total of five RCAs fall within Newark and Sherwood; Sherwood, Mid-Nottinghamshire Farmlands, Trent Washlands, East Nottinghamshire Sandlands and South Nottinghamshire Farmlands (Figure 1 shows these character areas in the context of the whole District). Each RCA forms a separate chapter within this Landscape Character Assessment. The RCAs are further divided into Landscape Description Units [LDUs], these are homogenous units within the broader RCAs.

1.4.2 **Landscape Character Assessment**

Within each Regional Character Area the LDUs are subdivided into manageable survey units known as Landscape Character Parcels [LCPs]. Each LCP is assessed in terms of its individual landscape character in accordance with the methodology. A photograph which is representative of the character of each LCP is also taken and its location recorded. This information is detailed on the Landscape Character Assessment field survey sheets for each Regional Character Area which are included at the relevant Appendix D,E,F,G,H.

1.4.3 **Draft Policy Zones**

Following on from the Landscape Character Assessment of each LCP a number of Draft Policy Zones [DPZs] are created using the completed survey information. Key characteristics are tabulated to help determine which LCPs may or may not be grouped together to form a DPZ, for instance LCPs with obvious similarities become one distinct DPZ. The DPZs combine either one or more LCP depending upon the similarities of their attributes. A table showing the derivation of each DPZ for each Regional Character Area is included at Appendix J. [N.B. on the summary tables - under Landform/Landuse/Building Style etc. plain text denotes dominant or prominent characteristics and italics denote apparent or insignificant characteristics.]

1.4.4 **Landscape Condition and Sensitivity Assessment**

The DPZs are assessed in terms of their Landscape Condition and Sensitivity in accordance with the methodology. This information is detailed on the Landscape Condition and Sensitivity Assessment field survey sheets for each Regional Character Area, which are included at the relevant Appendix M,N,O,P,Q, and forms the basis of the Landscape Policy for each Zone. It is at this stage, once the survey process is complete, that the Draft Policy Zones become Policy Zones.

1.4.5 **Policy Zones**

A series of Policy Sheets, one per Policy Zone, covering each Regional Character Area within the District of Newark and Sherwood, have been produced and are set out within the relevant chapters 2 – 6, these are supported by a plan showing the resultant Policy for each Zone. Each Policy Sheet includes an overall character summary, specific characteristic features, a matrix and summary of the landscape condition and sensitivity and a representative photograph. Finally, a series of landscape actions is defined for each Policy Zone. An overarching plan of all Policy Zones within Newark and Sherwood has also been produced [Figure 3 and overlaid on an OS map Figure 4].

It should be noted that only the key heritage assets, which contribute to the wider character of landscape, have been described within this document. Users of the document should check with the planning authority's specialist heritage teams on the content, nature and significance of all heritage designation/sites for their area of interest.

Collectively these provide a Policy Framework for the conservation and restoration of Sherwood, Mid-Nottinghamshire Farmlands, Trent Washlands, East Nottinghamshire Sandlands and South Nottinghamshire Farmlands falling within Newark and Sherwood. This framework will help to ensure that landscape character is reflected in the many decisions and actions that affect its continuing evolution. The intention is not to fossilise change, but to provide a context that will enable policy making, planning and landscape management

decisions to be made which respect and sustain the diversity and character of our countryside.

Chapter 3: The Mid-Nottinghamshire Farmlands Regional Character Area

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Mid-Nottinghamshire Farmlands

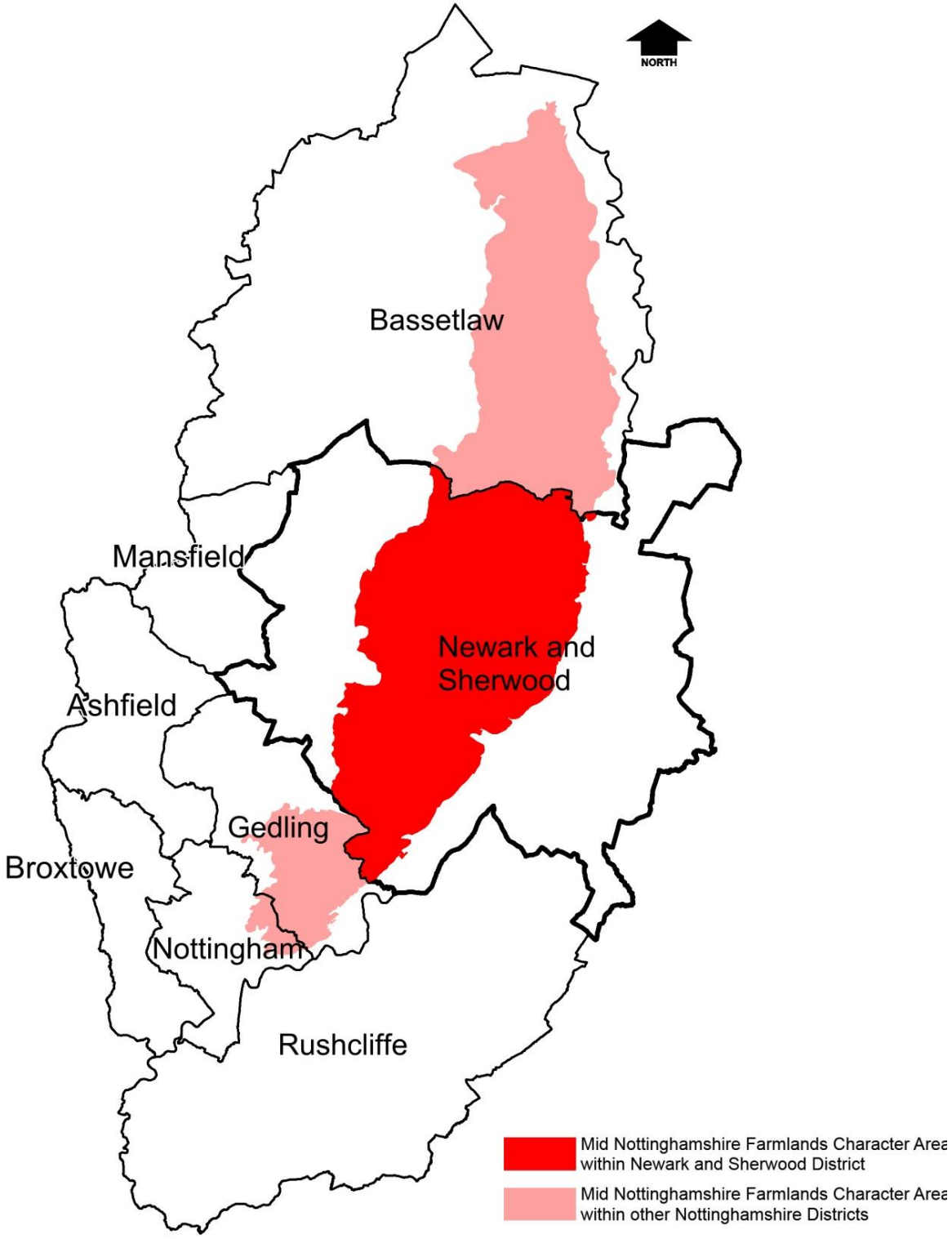


Figure 3.1 Mid Nottinghamshire Farmlands Character Area within Nottinghamshire and Newark and Sherwood District

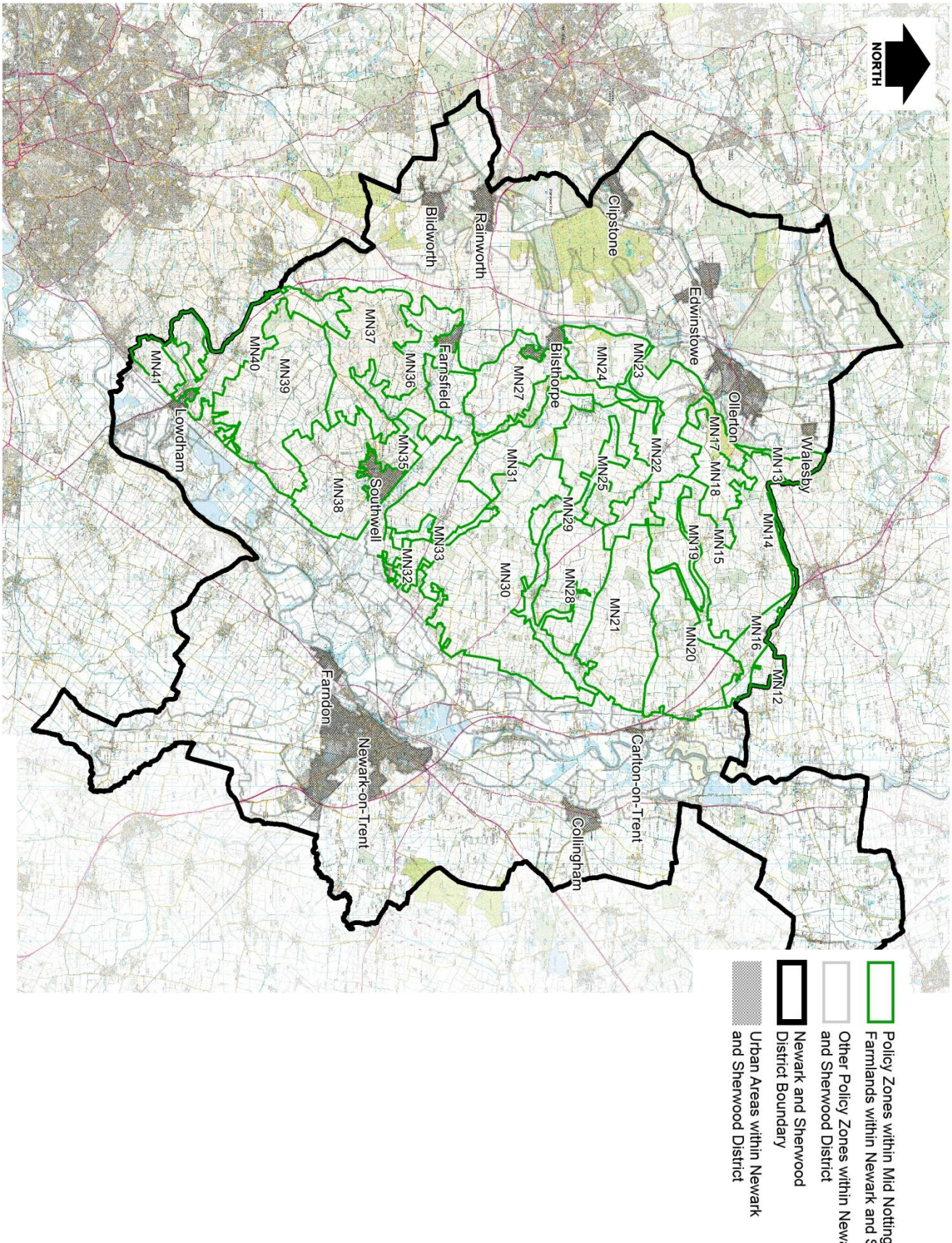


Figure 3.2 Mid Nottinghamshire Farmlands Character Area within Newark and Sherwood District

3.1 Physical and Human Influences

3.1.1 Introduction

The Mid-Nottinghamshire Farmlands forms a discrete area within Nottinghamshire, extending in a broad band from the edge of Nottingham north to the Idle Lowlands. It is bounded to the west by the Sherwood region and to the east by the lowlands of the Trent Washlands. Small nucleated villages, isolated farmsteads and quiet country lanes are important components of the region's character, along with undulating landform, hedged fields and woodland. These features, and the fact that the area is dominated by agriculture, ensure that the region has a traditional rural character. This is reflected in the pattern of settlement and enclosure.

The extent of Mid-Nottinghamshire Farmlands county character area within Newark and Sherwood is shown on Figure 3.1

3.1.2 The Shape of the Land

The Mid-Nottinghamshire Farmlands is closely associated with a broad belt of Triassic rocks that run northwards through the length of the Newark and Sherwood District to Bassetlaw and beyond. These rocks comprise two formations: Waterstones, consisting of thinly bedded sandstones and siltstones separated by layers of mudstone, and the Mercia Mudstone (formerly known as the Keuper Marl) comprising a great thickness of stratified reddish mudstones with occasional bands of hard sandstone, known locally as "skerry". Both formations are overlain by alluvial and fluvio-glacial drift in the Idle Lowlands, which borders the region to the north and north-west. This covering of drift also extends along the Trent Valley to the east.

Like the rock formations above and below it, the Mercia Mudstone gives rise to a low rolling escarpment that slopes gently eastwards in general conformity with the underlying bedrock. A well-marked scarp slope overlooks the Sherwood Sandstone along the western edge of the outcrop. The Waterstones form the lower, and on the whole gentler, portion of this slope, while the upper, and often much steeper, slope is composed of Mercia Mudstone, with its more resistant skerry bands. These bands, where they are well-developed, give rise to a much more varied and undulating topography as well as giving added prominence to the scarp slope.

Owing to the impervious nature of the underlying mudstones, the escarpment has become heavily dissected by numerous streams, each occupying a well-defined valley, many of which are floored by alluvium. To the north of the district an increasing number of streams have cut through the Mercia Mudstone to expose the underlying Waterstones. The various becks and streams occupy shallower valleys, than those south of the district.

3.1.3 Soils

Dark brown stony clay loam or clay soils cover most of the region's land surface. Dark reddish brown sandy silt loam and clay loam soils occur on the lower beds of the Mercia Mudstone group to the west. Dark brown clay loam and silty clay loam soils are found on gentler slopes in the east, where the mudstone is overlain by thin fine loamy or fine silty drift. Tongues of reddish/greyish river alluvium are found in the beck valleys. Stony soils can be found where the skerries come close to the surface.

3.1.4 Landscape History

Little can be said about the early history of the landscape of the Mid-Nottinghamshire Farmlands. The clay soils of the Mercia Mudstones are not on the whole sympathetic to the production of cropmarks, the results of differential crop growth over buried ditches, pits and other features which have revolutionised our understanding of the prehistoric and Roman periods in other regions such as the Trent Washlands and Sherwood. The rural character and remoteness of much of this region has also contributed to a lack of study and survey. In consequence, the archaeology of the Mid-Nottinghamshire Farmlands depends almost entirely upon objects recovered from the surface of ploughed fields and earthworks, which have to be interpreted against the wider background of landscape history deduced from evidence elsewhere.

For a more detailed analysis of the Mid Nottinghamshire Farmlands history refer to Appendix R.

3.2 Landscape Evolution and Change

3.2.1 Introduction

This section examines the main forces that have brought about change and evolution within the Mid-Nottinghamshire Farmlands over recent decades. It does this by discussing how the current structure and pattern of land use has developed, paying particular regard to agriculture, woodland, transport, industrial/residential development and mineral extraction. It also considers the trends and pressures that may produce landscape change in the future.

3.2.2 Agriculture

The economy of the region is dominated by agriculture with most farmland being of medium agricultural quality. Pockets of higher quality land occur to the west and east of the region on loamy drift and in the alluvial valley bottoms.

A large proportion of the farmland in the region is under arable rotation. Wheat is by far the most frequent crop, with barley a close second. The local climate and the nature of the soil mean that autumn sown crops are usually a more feasible option than those sown in spring. Peas and root crops such as sugar beet and potatoes are grown as part of rotations on the lighter, higher quality agricultural land.

The main change in agricultural practice since the Second World War has been the swing from a mixed agricultural economy to one dominated by arable farming, with an associated increase in holding size. The scale of permanent pasture has vastly reduced since 1939. The majority of pastures are now found south of the district and elsewhere along watercourses and settlement edges. Traditionally cattle farming was widespread and in the 1930s strong corridors of pasture flanked most of the beck valleys. The character of these features has changed with significant areas now used for cropping. A change in grassland management has also occurred, present day management being more intensive and often involving two or more annual silage crops compared to the un-intensive hay crop taken 50 years ago.

Wheat has remained constant as the dominant arable crop since the 1930s. Oats, once a frequent component of arable rotations in the region, have become much less common, and superseded in importance by barley. Root crops, then as now, play a small role as break crops. Clover was widely planted as a break crop in the 1930s, being second only to wheat in terms of arable area. Clover crops are now uncommon with oilseed rape and field beans taking their place.

Horticulture has a similar distribution now to that of the 1930s, although it is much reduced in area. Small areas of horticulture are scattered through the region, occupying a small

percentage of the total farmed area. A major change in the rural economy has been associated with the dramatic decrease in the area of orchard land. Remnant orchards are, however, a feature of many of the smaller village settlements and are suggestive of their past importance to the local land-based economy.

3.2.3 Woodland/Tree Cover

The Mid-Nottinghamshire Farmlands is a relatively well-wooded landscape containing many deciduous woodlands and a high proportion of the County's ancient semi-natural woodland. At the beginning of the present millennium the region was the most wooded part of Nottinghamshire despite the presence of Sherwood Forest to the west. However, in more recent times large-scale planting in Sherwood has meant that the area has been overtaken in terms of the proportion of woodland that it contains. Small and medium woodlands are scattered throughout although in the north and east, woodlands are less common.

Deciduous woodland is the dominant woodland type across the region and includes a relatively high number of ancient semi-natural woodlands. These vary in size from the small, linear woods along the valleys to the large blocks of woodland like Wellow Park, which is 130 ha in extent. Ash, field maple, hazel, oak, hawthorn and wych elm are typical deciduous woodland species.

Between 1920 and the present day there has been a slight but perceptible change in the nature of woodland cover in the region. Agricultural intensification has led to a number of established woodlands being cleared or reduced in size. However, many new woodlands have been planted, often small ones of less than one hectare. The end result is that since the 1920s there has been an overall increase in the hectare-age of woodland in the region but a decrease in the area of ancient semi-natural woodland.

Dutch elm disease had a major impact upon the landscape during the period 1960-1980, leading to the loss of virtually all hedge and roadside elms. Despite this loss hedgerow trees still form an important component of the region's tree cover, with ash, oak and willow the dominant species.

3.2.4 Transportation

A small number of main roads affect the region, crossing the area in a north-west to south-east direction such as the A616 and A617. These are linked to the rural settlements by a comprehensive network of country lanes. A short section of the A1, west of Carlton-on-Trent and south of Tuxford, is the only trunk road within the area. Running parallel to the A1 is the main London railway line.

3.2.5 Urban and Industrial Development

The Mid-Nottinghamshire Farmlands is a sparsely populated region, the settlement pattern is formed by numerous small nucleated villages and isolated farmsteads. Large-scale new development has been relatively well controlled so that the region's rural character, and the historic settlement pattern of small red brick villages, is still intact.

The Mid-Nottinghamshire Farmlands span the central part of the District with the settlement of Southwell at its heart. Southwell is classified as a 'Service Centre within the Local Development Framework's Settlement Hierarchy and provides a range of local facilities acting as a focus for service provision to a large local population and rural hinterland. The smaller Principal Villages of Bilsthorpe, Farnsfield and Lowdham offer a good range of day to day facilities and act as a secondary focus for service provision.

In order to help secure and support the roles of these settlements, and to encourage regeneration in Bilsthorpe they have been identified as the locations for future growth through the Local Development Framework. To facilitate this growth a series of site allocations have been made for a range of uses including residential, employment and retail.

Whilst they may not be the focus for significant levels of growth it is clear that economic and social factors will continue to exert pressure on rural areas of the District and it is likely that the demand for rural housing will continue to grow, driven by the increasing number of people who want to live in a rural location. The refurbishment and conversion of old farm buildings to high quality residential dwellings is now widespread. If the trend continues there may be further consequences for the future pattern and character of the rural landscape.

Employment development will be directed toward the built-up areas of the District and only acceptable in the open countryside where the need for a rural location and the contribution towards rural employment can be demonstrated. The conversion of existing buildings in rural locations to beneficial uses, diversification of rural businesses where this contributes to the local economy and tourism development / accommodation which meets identified needs are also provided support in local planning policy.

Continued uncertainty in the agricultural sector and declining incomes will ensure that rural tourism and farm diversification play an increasing role in the economy of the area. This is likely to result in the conversion of existing agricultural buildings, and in some cases demands for new built development.

3.2.6 Energy

The power generating industry warrants separate consideration due to its enormous impact on the landscape of the region. There are two functioning coal-fired power stations located in the neighbouring **Trent Washlands**, Cottam, and West Burton to the east. The power stations and associated web of high voltage power lines, of which 4 cross this character area,

constitute the most dominant and visually intrusive landscape features within and out-with the **Mid-Nottinghamshire Farmlands**.

3.2.7 **Renewable Energy**

The United Kingdom is legally bound to meeting challenging targets for the generation of energy from renewable sources (15% by 2020) and the reduction of greenhouse gas emissions (to 34% below 1990 levels by 2020 and 80% by 2050). A framework of national policy, reflecting the need to increase the supply and usage of energy from low-carbon sources and to ensure that adverse impacts are satisfactorily addressed, has been put in place to help deliver these aims. Significantly, this carries the expectation that applications be approved, unless material considerations indicate otherwise, if their impacts (such as that on the landscape) are (or can be made) acceptable. Core Policy 10 'Climate Change' of the Core Strategy and Policy DM4 'Renewable and Low Carbon Energy Generation' in the Allocations & Development Management Development Plan Document's set out local planning policy on this issue.

Given this policy context there are likely to be future applications for renewable energy developments, such as wind-farms, in the Mid-Nottinghamshire Farmlands area. For instance a Wind Farm of five turbines with a height to tip of 103.5m and a rotor diameter of 80m has been granted planning for a 25 year operational period on land at Stonish Hill and the former Bilsthorpe colliery, near the village of Eakring. Such structures have the potential to change the landscape character, with the power generation industry continuing, therefore, to be a dominant feature of the region.

3.2.8 **Minerals: sand and gravel**

Industrial development and mineral extraction are closely linked within the region as a whole, with most activity confined to the area south of the A1.

Clay quarrying and associated brickworks form the most important industrial activity with Nottinghamshire supporting a locally significant brick manufacturing industry. Kirton is the largest active clay pit in Nottinghamshire with a permitted area of 80 hectares, which will eventually be partially landfilled and restored to agricultural use. Kirton clay pit provides both red-firing and cream-firing clays, the former accounting for about 90% of demand. Reserves of cream clay are located in the south east of the pit within a separate working area. Reserves of cream clay should be sufficient until at least 2030. It is estimated that red clay reserves will be exhausted by 2009. The pit is being progressively reclaimed back to agriculture by re-profiling the land.

Oil has been found in the carboniferous sandstone which underlies the Mercia Mudstone. Active fields in the region are to be found at Kirklington, and Egmanton. In landscape terms winning oil is not very obtrusive as the necessary landtake is small. The plant is minimal and is generally screened by low earth mounds and/ or trees. Following exploitation, land is restored to its former use. It is likely that further exploration for oil will take place in the area.

3.2.9 **Tourism**

Lying in the heart of the Mid-Nottinghamshire Farmlands is Southwell is a small country town which is well known for its large 12th Century Norman Minster. Set within a shallow bowl, the surrounding undulating landform, with woods and dumble streams, provides an attractive landscape setting for the town and the Minster whose towers are visible from the surrounding

countryside. Refer to the '*Southwell Landscape Setting Study'* (November 2012) for further information.

3.2.10 **Climate Change**

Research has identified trends and emerging patterns of global climate change. Within the UK, implications for climate change include:

- Global temperature increases of between 1.8 and 4 degrees centigrade above the 1990s levels by the end of the 21st Century, with UK increases anticipated at 2 to 3.5 degrees by 2080.
- Greater warming in the South and East of the UK, rather than the West and North.
- Increasing temperatures resulting in milder winters and high summer temperatures.
- An increase in sea levels by 26-86 cm, by 2080. Extreme high water incidences 10 to 20 times more frequent, increasing coastal flood risks.
- Changes in rainfall patterns, with wetter winters and drier summers. The greatest changes are anticipated for the South and East of the UK, where summer rainfall could reduce by 50%, and snowfall reduced by 60 – 80% by 2080. **(1)**

These changes have the potential to impact on all other drivers for change in the future. The issues of the most relevance to the landscape character of the **Mid Nottinghamshire Farmlands** include:

Built Development:

- Increased development on land away from locations such as river corridors and low lying areas that are at risk from flooding.
- Sustainable design and layout of new development to result in less use of water, energy and raw materials.

Infrastructure:

- Pressure for renewable energy infrastructure, such as wind turbines to reduce emissions.
- Demand for new riverine defence works in response to tidal surges and high waves.

Minerals and Waste:

- Reducing the amount of waste land filled and increasing the amount of waste recycled and composted.

Agricultural and Land Management:

- Increased risk of river flooding and loss of land as a result of rising sea levels and coastal erosion.
- Changing weather conditions leading to longer growing seasons and the ability to grow different types of crops.

- The introduction of energy crops to provide an sustainable source of fuel.

- Gradual changes in flora and fauna in response to warmer, wetter conditions and more disturbed weather patterns.

Forestry and Woodland:

- Sustainability of woodland tree species may alter due to changes in climatic conditions.

- Lengthy period of drought and dry conditions may lead to an increased risk of upland forest fire.

Tourism and Recreation:

- Increased number of visitors to the countryside due to higher temperatures.

(1) www.defra-gov.uk/environment/climatechange/about/ukeffect

3.3 Species List – Mid Nottinghamshire Farmlands

The following list includes native tree and shrub species that are commonly found within the **Mid-Nottinghamshire Farmlands** and are suitable for inclusion in planting schemes. These are important for determining the area's regional character. A range of native species may also be appropriate to particular locations or sites. In these cases professional advice should be sought.

All plant material should be of local provenance or at least of British origin. The document 'Using local stock for planting native trees and shrubs' - Forestry Commission - Practice Note August 1999 by George Herbert, Sam Samuel and Gordon Patterson; provides guidance in this respect. A list of suppliers is provided on the Flora Locale website – www.floralocale.org

TREES	Botanical name	Woodlands	Hedges	Hedgerow trees	Wet areas/ streamsides
Alder (Common)	*Alnus glutinosa*				■
Ash	*Fraxinus excelsior*	■	□	■	□
Aspen (Downy)	*Populus tremula*	□			
Cherry (Wild)	*Prunus avium*	□			
Crab Apple	*Malus sylvestris*	□	□	□	
Elm (English)	*Ulmus minor var.vulgaris*		□	□	
Elm (Wych)	Ulmus glabra	■	□		
Maple (Field)	*Acer campestre*	■	□	□	□
Oak (Common)	*Quercus robur*	■	□	■	□
Willow (Crack)	*Salix fragilis*	□		□	■
Willow (White)	*Salix alba*			□	■

SHRUBS	*Botanical name*	Woodlands	Hedges	Hedgerow trees	Wet areas/ streamsides
Blackthorn	*Prunus spinosa*	■	■		□
Buckthorn	*Rhamnus cathartica*	□	□		
Dogwood (Common)	*Cornus sanguinea*	□	□		□
Guelder Rose	*Viburnum opulus*	□	□		□
Hawthorn	*Crataegus monogyna*	■	■		■
Hawthorn (Midland)	*Crataegus laevigata*	□	□		□
Hazel	*Corylus avellana*	■	□		
Holly	*IIex aquifolium*	□	□		
Osier	*Salix viminalis*				□
Privet (Wild)	*Ligustrum vulgare*		□		
Rosa (Dog)	*Rosa canina*	□	■		□

■ Dominant species

□ Other species present

Mid Nottinghamshire Farmlands Policy Zone MN PZ 24: Rufford Park Estate Farmlands with Plantations
Policy: Create

Predominantly flat plateau area contained by ridge to east and Rufford estate woodland to the north, by landform to the west and urban fringe to the south (some longer range views out of the area to the ridge northeast of Gallow Hole Dyke). Other areas further north are gently undulating upwards towards the south and to the west. Resulting views are generally medium range, terminated by landform, tree belts or treed ridgelines.

A highly variable area in terms of its cultural integrity and sense of place, a number of different land uses are apparent throughout the Policy Zone. Further to the north, agriculture dominates, with arable fields and chicken sheds apparent. Some scattered residential buildings are associated with the farming and stud farm. The history of the area has informed the field pattern due to the area previously being parkland. This has resulted in minimal field boundaries and a very open character, aside from the plantations that encompass the fields to the west and south.

Towards the south, it is also predominantly arable farmland with cattle and sheep grazing on restored mine areas. A business park development on the former colliery site. Deciduous woodland planting on reclaimed pit slopes. Some horsiculture on reclaimed areas. Sports pitches on fingers of Bilsthorpe. One farm on minor road to Eakring.

A number of Biological SINC designations exist in the area:

- 5/2161 – Bilsthorpe Colliery 'An important site for breeding waders';
- 2/671 – Cutt's Wood 'A mature deciduous compartment of semi-natural character'

There are no settlements in the area itself – Bilsthorpe forms the southern boundary to the Policy Zone and Eakring lies to the east. This may contribute to the lack of a sense of place in the area. There is one Listed Building in the area, Park Lodge .

Aside from this, all other buildings are industrial and/or agricultural, and some scattered residential buildings associated with farming or the stud farm.

Vegetation throughout the site includes some internal hedgerows that are generally well maintained and mature (although many are lost). Some very isolated hedgerow trees – mainly ash. Road hedges tend to be mature and well maintained – Hawthorn, Hazel, Elder, Rosa sp, Suckering Ash Trees (no large trees). There are also some linear tree lines present – possibly short rotation Christmas Tree crops, but they are not a significant feature. There is some deciduous planting on the disused pit – includes Willow, Poplar and Horse Chestnut. There is also some scrubby woodland in association with the dismantled railway line. Further towards the north, there is linear woodland along the ridge that forms the western edge of the boundary, and also runs from west to east along the centre of the Policy Zone. There are woods shown on the Sanderson Plan as being within Rufford Estate. There is also a small regular area of woodland in the north of the area along Gallow Hole Dyke. Parkland trees of Oak/Sycamore/Limes.

Woodlands generally contain Oak/Holly/Lime/Beech/Hawthorn/Birch/Pine. Tree belts include Lombardy Poplars and Poplars along Gallow Hole Dyke. All of the hedge lines are gone in this northern part of the Policy Zone.

Threats to the area include:

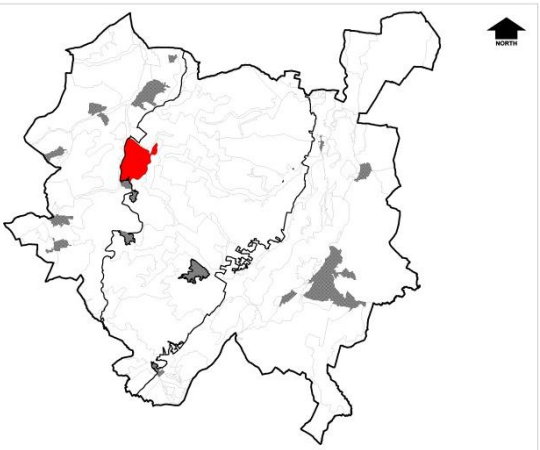
- Further deterioration of remaining parkland character through loss of mature parkland trees and woodland;
- Poor management or removal of internal and roadside hedgerows. Lack of long term management of pit plantings;
- Potential increase in industry; proposed Wind Farm.

MN PZ 24 Rufford Park Estate Farmlands with Plantations

PHOTOGRAPH

CONTEXT

NCC Landscape Type: Estate Farmlands with Plantations
Policy Zone: MN PZ 24
Landscape Character Parcel: MN47 & MN50



CHARACTERISTIC VISUAL FEATURES

- Gently undulating rounded topography
- Connecting belts of mixed woodland and plantations
- Highly intensive arable land
- Numerous agricultural buildings (chicken sheds etc.)
- Industrial units, sewage works, electricity substation.

LANDSCAPE ANALYSIS

Landscape Condition

The Landscape Condition is defined as **poor.**

The area has an **incoherent** pattern of elements composed Industrial estates, chicken sheds, woodland, disused workings and arable fields; there are **some** detracting features including pylons and power lines, chicken sheds, electricity substation, disused workings, sewage works and industrial units. Overall this gives a visually **interrupted** area. There are a couple of Biological SINC designations (5/2161 – Bilsthorpe Colliery and 2/671 – Cutt's Wood).

In ecological terms the area provides a **moderate** habitat for wildlife, with areas of semi-natural scrub, woodland and hedgerows forming relatively good networks. Cultural integrity is **variable** in that the field pattern intact or missing in places, with some mature hedgerows. A visually **interrupted** area with a **coherent** functional integrity gives a **poor** landscape condition.

SUMMARY OF ANALYSIS

Condition	**Poor**
Pattern of Elements:	Incoherent
Detracting Features:	Some
Visual Unity:	Interrupted
Ecological Integrity:	Moderate
Cultural Integrity:	Variable
Functional Integrity:	Coherent

Landscape Sensitivity	Sensitivity	Very Low
The Landscape Sensitivity is defined as **very low.** The components of the landscape are **indistinct** to the Mid-Nottinghamshire LCA due to the variety of components that have no connection to the landscape. The time depth is **recent** (last 50 years) giving a **very weak** sense of place overall. The landform is **apparent** with **intermittent** areas of woodland giving a generally **moderate** visibility value within the Policy Zone. Views are intermittent and often enclosed due to the numerous blocks and linear sections of woodland, but longer distance views are apparent around the edges of the PZ. A **very weak** sense of place and **moderate** visibility leads to a **very low** landscape sensitivity overall.	Distinctiveness: Continuity: Sense of Place: Landform: Extent of Tree Cover Visibility: (Where one criterion is 'very poor' or 'very weak', this pushes the policy description into the next lowest category)	Indistinct Recent Very Weak Apparent Intermittent Moderate

LANDSCAPE ACTIONS – Create

Landscape Features

- Maintain management of existing woodlands, plantations and pit planting.
- Utilise existing industrial nature of site and **create** suitable agricultural/industrial developments.
- **Create** new hedgerows and restore existing, seek opportunities to recreate historic field pattern were feasible.
- Enhance tree cover and landscape planting generally, in particular, towards the north within Rufford Park and around the industrial estate to the south, to **create** increased visual unity and habitat across the Policy Zone.

Built Features

- **Create** new industrial economy within the area, such as creation of a wind farm (already proposed).

Condition

Good	REINFORCE	CONSERVE & REINFORCE	CONSERVE
Moderate	CREATE & REINFORCE	CONSERVE & CREATE	CONSERVE & RESTORE
Poor	CREATE	RESORE & CREATE	RESTORE
	Low	Moderate	High

Sensitivity

Mid Nottinghamshire Farmlands Policy Zone MN PZ 27: Kirklington Village Farmlands
Policy: Create

A rolling and undulating landform with dry valleys. Camp hill forms the highest point to the east. Some flatter areas with present to the south near Upper Hexgreave. This results in views often being medium to long distance; however, they can also be enclosed in places due to topography and hedgerows lining the roads and tracks within the area.

With the settlement of Bilsthorpe in the north west of the area, and the periphery of Kirklington included in the Policy Zone, the remainder of the area is composed of industrial units, isolated farmhouses and agricultural buildings such as chicken sheds. These buildings and settlements vary in character and age greatly, with Kirklington being generally vernacular and Bilsthorpe being mostly modern residential housing. The remainder of the buildings are made up of a mixture of modern and historic. Belle Eau Industrial estate is a feature within the area and in scale and materials, is not vernacular.

The land use is predominantly arable agriculture and the field sizes tend to reflect this, with medium to large scale intensive arable irregular geometric field patterns. Boundaries to these fields are generally hawthorn hedgerows, of varying conditions; some being well maintained, others fragmented or lost. A few fields are smaller and used for pasture. Boundaries to these fields are often post & wire or post & rail fencing.

The disused mineral workings in the north-west of the site introduce some semi-natural vegetation to the area, with scrub and deciduous woodland. Another semi-natural area is the area of open water near Kirklington and the stream that supplies it. This is lined with riparian vegetation such as Willow, Ash and Elm.

Fragmented blocks of mixed deciduous woodland exist within field systems and surrounding Kirklington. They include species such as Oak, Ash, Hawthorn, Beech, Birch and Sycamore.

A number of ecological bases can be found throughout the Policy Zone, such as:

- Southwell Trail Nature Reserve (to west of area);
- New woodlands associated with disused workings;
- Riparian vegetation around open water at Kirklington;
- Kirklington Hall School parkland and parkland trees;
- Hedgerows and field margins provide a relatively good network.

There are a couple of Biological SINC designations around the area:

- 5/2161 – Bilsthorpe Colliery ‘An important site for breeding waders’
- 2/541 – Farnsfield Disused Railway ‘a sizeable linear habitat of dry grassland and scrub’

There are a number of drivers for change in the area. These include:

- Further urban development sprawl (especially from Bilsthorpe);
- Further industrial development or intensification of existing industry;
- Reduction of existing woodland due to land use changes or lack of management;

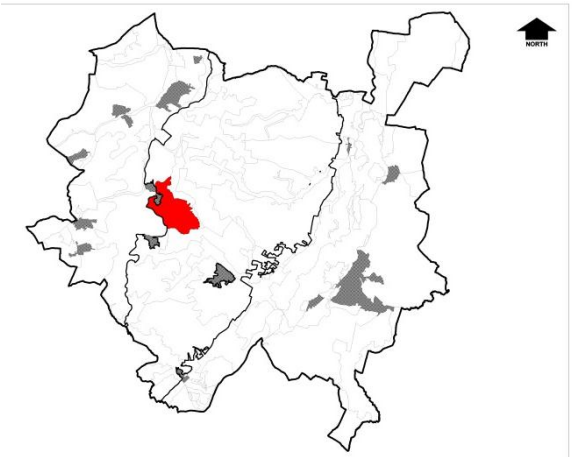
- Fragmentation and/or loss of hedgerows due to intensification of arable agriculture and/or poor management.

MN PZ 27 Kirklington Village Farmlands

PHOTOGRAPH

CONTEXT

NCC Landscape Type: Village Farmlands
Policy Zone: MN PZ 27
Landscape Character Parcel: MN52



CHARACTERISTIC VISUAL FEATURES

- Gently undulating rounded topography, with some flat areas.
- Medium distance views to frequently wooded skylines.
- Numerous small linear blocks of mixed deciduous woodland.
- Predominantly medium scale arable field systems.
- Part of settlement of Eakring.

LANDSCAPE ANALYSIS

Landscape Condition

The Landscape Condition is defined as **very poor.**

The area has an **incoherent** pattern of elements composed of arable fields, industrial buildings, busy roads, agricultural buildings, chicken sheds, and caravan sites; there are **many** detracting features including a section of the A614, Scrap yard and recycling area, caravan park, poultry houses, disused coal workings and industrial units. Overall this gives a **significantly interrupted** area. There are a couple of Biological SINC designations (5/2161 – Bilsthorpe Colliery; 2/541 – Farnsfield Disused Railway).

In ecological terms the area provides a **moderate** habitat for wildlife, with areas of semi-natural scrub, woodland and hedgerows forming relatively good networks. Cultural integrity is **variable** in that the field pattern is often missing, with a mixture of hedgerows – some mature and some fragmented or missing. A **significantly interrupted** area with a **coherent** functional integrity gives a **very poor** landscape

SUMMARY OF ANALYSIS

Condition	**Very Poor**
Pattern of Elements:	Incoherent
Detracting Features:	Many
Visual Unity:	Significantly interrupted
Ecological Integrity:	Moderate
Cultural Integrity:	Variable
Functional Integrity:	Coherent

(Where one

condition.

criterion is 'very poor' or 'very weak', this pushes the policy description into the next lowest category)

Landscape Sensitivity

The Landscape Sensitivity is defined as **moderate.**

The components of the landscape are **indistinct** to the Mid-Nottinghamshire LCA due to the lack of components that have a connection to the landscape. The time depth is **historic** (post 1600) giving a **moderate** sense of place overall.

The landform is **apparent** with **open** areas of woodland giving a generally **high** visibility value within the Policy Zone. Views are intermittent and often open due to very low of missing hedgerows and some areas of flat topography. A **weak** sense of place and **high** visibility leads to a **moderate** landscape sensitivity overall.

Sensitivity	**Moderate**
Distinctiveness:	Indistinct
Continuity:	Historic
Sense of Place:	Weak
Landform:	Apparent
Extent of Tree Cover	Open
Visibility:	High

LANDSCAPE ACTIONS – Create

Landscape Features

- **Create** new hedgerows and restore existing, seek opportunities to recreate historic field pattern where feasible, contain new development within historic boundaries.
- Maintain management of existing woodlands, plantations and pit planting, whilst enhancing tree cover and planting generally to **create** increased visual unity and habitat across the Policy Zone.
- Utilise existing industrial nature of site and **create** suitable agricultural/industrial developments.

Built Features

- **Create** new industrial economy within the area.
- **Create** new areas of planting in order to minimise impact of industry on character of Policy Zone.

Condition

	Low	Moderate	High
Good	REINFORCE	CONSERVE & REINFORCE	CONSERVE
Moderate	CREATE & REINFORCE	CONSERVE & CREATE	CONSERVE & RESTORE
Poor	CREATE	RESORE & CREATE	RESTORE

Sensitivity