East Staffordshire Local Plan

Planning for Change

Green infrastructure Study – Update 2013

East Staffordshire Borough Council

October 2013

Contents

1 **Introduction** 1

- Project Overview
- What is Green Infrastructure?
- Aims and Scope
- Report Structure

2 **East Staffordshire Borough** 4

- Chapter Overview
- Environmental Context of Burton Upon Trent and its Immediate Environs
- Environmental Context of Uttoxeter and its Immediate Environs
- Environmental Context of the East Staffordshire Borough

3 **Approach to Green Infrastructure Study** 6

- Chapter Overview
- Geographical Scope of the Study
- Methodology

4 **Strategic Context Review** 10

- Chapter Overview
- Review Approach
- Gypsies and Travellers – Pitch provision
- Employment
- Retail and Retail Health Check

5 **Review of Existing Green Infrastructure** 13

- Chapter Overview
- Review Approach
- East Staffordshire Borough
- Biodiversity and Geodiversity
- Burton Upon Trent and Its Immediate environs
- Uttoxeter and Its Immediate environs
- Data Limitations
- Recommendations for Further Study

6 **Baseline Interpretation and Analysis** 65

- Chapter Overview
- Physical Green Infrastructure Summary
- Green Infrastructure Analysis
- East Staffordshire Borough
- Burton upon Trent
- Uttoxeter

7 **Existing GI Initiatives** 71

- Chapter Overview
- Existing Initiatives

8 **Needs Assessment** 79
- Chapter Overview
- Assessment Limitations
- Urban Green Infrastructure Needs
- Green Infrastructure Network Needs

9 **Opportunities Assessment** 87
- Chapter Overview
- East Staffordshire Green Infrastructure Group
- East Staffordshire Multi-Functional Parks Project
- Needwood Forest Project
- River Dove Access Project
- Green Tourism Projects

10 **A Green Infrastructure Vision for East Staffordshire** 91
- Chapter Overview
- Green Infrastructure Vision for 2012
- Core Themes
- Woodland Vision
- Wetland Vision
- Connectivity Vision

11 **Green Infrastructure Standards for Sustainable Development** 95
- Chapter Overview
- General Standards
- Thematic Standards

12 **Implementation Plan** 98
- Chapter Overview
- Practical Implications of Green Infrastructure Delivery
- Practical Implications of Green Infrastructure Funding

Glossary 104

Appendices 113

Appendix 1: Policy Context
Appendix 2: SSSI Notification Details
Appendix 3: Baseline Data Analysis
Appendix 4: Historic Landscape Character Data Analysis
Appendix 5: Figures (mapped outputs)

Introduction

This Green Infrastructure Study was originally prepared by Faber Maunsell in conjunction with Lockhart Garratt and was published in March 2008. This update reflects changes to the planning system and explains how the Study will be used in conjunction with the new Local Plan.

Project Overview

Background

1.1 In 2006 East Staffordshire was identified by central government as a New Growth Point in the announcements of the New Growth Point Programme. The aim of the initiative was to bring significant benefits to the Borough in terms of strategic growth and associated infrastructure investment from central government.

1.2 The allocation of New Growth Point funding was conditional upon the establishment of a suitable evidence base for the consideration of the overall effects of strategic growth upon the Borough and the selection of suitable growth locations. This evidence base comprises an understanding of the likely interaction of growth with (but not exclusively to) transport, flood risk, water cycle and green infrastructure.

1.3 This report forms the component outputs for the green infrastructure evidence base. It provides evidence to help inform the selection of potential locations for growth in the Borough, and identifies and addresses existing and anticipated future green infrastructure deficits. The report also provides vision and opportunities to achieve a significant net gain in green infrastructure value across the Borough through the creation, enhancement and sustainable management of new and existing resources.

Strategic Growth and Regeneration

1.4 East Staffordshire possesses a diverse urban and rural economy which has undergone a significant period of growth in recent years, with employment growing by 20% since 1998. Economic prosperity is still constrained, however, by issues such as an over reliance on manufacturing and low value added service sectors, a low wage economy and a lack of economic opportunity in areas of multiple deprivation. The need has therefore been identified to stimulate regeneration and economic growth by creating and regenerating large scale development sites and by developing infrastructure to attract quality housing, high value industries and to facilitate job creation, especially in higher value sectors.

1.5 To address these issues East Staffordshire aims to deliver a sustainable development strategy between 2012 and 2031 which will facilitate the construction of around 11,643 homes and 30 hectares of high quality premium employment land.

1.6 A significant proportion of this strategic growth will be directed towards the Burton area but Uttoxeter is also expected to grow further.

1.7 Within these ambitions remain a clear expression of improvements to existing green infrastructure including the conservation and enhancement of the natural environment, urban green spaces, canals and rivers. Burton upon Trent's position as the capital of the National Forest will be a major driving force in its future development.

What is Green Infrastructure?

1.8 The term “green infrastructure” is relatively new, having been developed in the USA and been initially adopted in the UK during the planning stage of the Thames Gateway Growth Area. While the term is new, the principles underlying it have been recognised in varying forms for many years, the most well-known early example in the UK being Ebenezer Howard’s Garden City movement of the early 20 Century.

1.9 Green infrastructure comprises networks of multi-functional open space, at all scales. Its fundamental principles are therefore the multi-functionality of open space resources, to enable them to maximise public benefit, and the connectivity of these resources into functional networks to ensure that the overall value of the network is greater than the sum of its component parts.

1.10 Green infrastructure encompasses all open space elements within rural and urban landscapes. Examples include:

- Watercourses
- Playing fields
- Nature reserves
- Cemeteries
- Footpaths
- Hedgerows
- Amenity landscaping
- Woodland

1.11 Green infrastructure is recognised for its improvement of the “liveability” of areas; improving their attractiveness to residents, employees, visitors and investors and promoting physical and mental well-being through its use and enjoyment.

1.12 A more comprehensive definition of green infrastructure within the West Midlands is provided by “Green Infrastructure: A Prospectus for the West Midlands Region”.1

Aims and Scope

Aims

1.13 The overall purpose of this study is to provide a long term vision for green infrastructure within East Staffordshire to ensure that the strategic growth of the Borough is fully integrated with and informed by its green infrastructure and to ensure that no net loss of green infrastructure value or provision occurs. The vision will also address the improvement of green infrastructure within the rural areas of the Borough and the maintenance and improvement of connectivity between the Borough’s urban and rural areas.

1.14 The study has five specific aims, which each have a dedicated chapter:

- To provide a robust evidence base for the analysis of growth locations
- To provide opportunities to enhance existing and provide new green infrastructure
- To provide a set of green infrastructure standards outlining what is required for a high quality environment associated with new development
- To outline how development could and should help to enhance green infrastructure

- To identify likely required mitigation

Scope of Study

1.15 This study has been undertaken at two scales: Borough scale and town scale.

1.16 At the Borough scale, the whole of East Staffordshire has been assessed, focusing on those natural assets which deliver significant green infrastructure value, providing multi-functional value to the whole population of the Borough.

1.17 At the town scale the two growth towns of Burton upon Trent and Uttoxeter have been studied individually in the context of their future growth. At this scale all areas of green space within the towns have been studied and assessed for their green infrastructure value and existing greenspace deficits against national standards have been identified.

Report Structure

1.18 The structure of this document is shown below.

Report Chapter

- **Chapter 1 Introduction**
  Provides project background and an overview of green infrastructure
- **Chapter 2 The East Staffordshire Borough**
  Provides a summary of the study area
- **Chapter 3 Approach**
  Provides an outline methodology for the study
- **Chapter 4 Strategic Context Review**
  Provides a description of the national, regional and local green infrastructure policy context of the study
- **Chapter 5 Review of Existing Green Infrastructure**
  Provides a thematic baseline of existing green infrastructure, using existing information
- **Chapter 6 Baseline Interpretation and Analysis**
  Provides a summary of physical green infrastructure and an analysis of baseline data to identify a green infrastructure network for the Borough
- **Chapter 7 Existing Green Infrastructure Initiatives**
  Provides a summary of existing initiatives related to green infrastructure
- **Chapter 8 Needs Assessment**
  Provides an assessment of physical green infrastructure needs, in terms of urban green space and Borough-wide connectivity
- **Chapter 9 Opportunities Assessment**
  Provides opportunities to achieve net gain in green infrastructure across the Borough
- **Chapter 10 A Green Infrastructure Vision for East Staffordshire**
  Provides an overall vision for green infrastructure, based upon the results of the study
- **Chapter 11 Green Infrastructure Standards for Sustainable Development**
  Provides a set of standards to ensure effective green infrastructure delivery
- **Chapter 12 Implementation Plan**
  Provides guidance on the practical implications of delivering green infrastructure

The East Staffordshire Borough

Chapter Overview

2.1 This chapter gives a broad overview of the environmental context of the areas covered by this study, which are as follows:

- Burton upon Trent and its immediate environs
- Uttoxeter and its immediate environs
- East Staffordshire Borough and its immediate environs

2.2 For the purposes of this study, the immediate environs of the two towns are defined as a 2km wide buffer zone around the boundary of each town's built-up area.

Environmental Context of Burton-Upon-Trent and its Immediate Environs

2.3 Burton upon Trent is situated within the corridor of the River Trent and this has had the greatest influence on the environmental context of the town, shaping its settlement pattern through the presence of its floodplain and providing the growing town with a plentiful water supply.

2.4 Much of the town's land use context is pasture, although arable farming is also evident. To the west of the town the land rises sharply to the Needwood plateau, on which the historic Needwood Forest was situated along with several historic parks, including Sinai Park which overlooks the town.

2.5 Burton upon Trent is located in the National Forest and has been named its capital. This has had a profound effect on the town, facilitating the creation of large areas of new woodland which provide multiple benefits from greening of the urban environment to wildlife habitat and a recreation resource.

Environmental Context of Uttoxeter and its Immediate Environs

2.6 Uttoxeter is the Borough's second largest population centre, located at the northern end of the Borough. As with Burton upon Trent, rivers have had a shaping effect on this town with the River Tean forming its northern boundary and the wide floodplain of the River Dove forming its eastern boundary. To the north and south of the town the land rises steeply away from these valleys.

2.7 Uttoxeter sits within a landscape of mixed farming, with pasture more dominant than arable. There is relatively little woodland within this landscape, although hedge trees are abundant giving a well-treed appearance.

Environmental Context of the East Staffordshire Borough

2.8 East Staffordshire occupies a transition point between the lowlands and uplands of England and this has led to it displaying a heavily varied environmental character.

2.9 The Borough is bounded to the west, south and east by the Rivers Blithe, Trent and Dove respectively. The character of the Borough in these locations is one of wide, flat river corridors which are rich in biodiversity. During the last two centuries the River Trent has been changed by gravel extraction and this has resulted in the creation of several large water bodies which are now delivering benefits in terms of biodiversity and recreation following the disruption of the quarrying activities.

2.10 The central area of the Borough is occupied by the Needwood plateau, an extensive area of Triassic clays that once held the historic Needwood Forest, but is now a principally agricultural landscape following clearance in the 19th Century. Several large areas of woodland remain, associated with historic parks, although most have been cleared of their native oak and holly woodland and replanted with conifers. The woods on the scarp of this plateau still hold considerable conservation interest, however.

2.11 To the north of the Borough the landscape begins to resemble that of the English uplands, with small pasture fields increasingly bounded by stone walls. At the very northern end of the Borough the land rises to the Weaver Hills, which are the foothills of the Pennine range. This area holds considerable biodiversity interest in the form of calcareous grassland, associated with the underlying White Peak limestone which extends into the Borough.

Approach to Green Infrastructure Study

Chapter Overview

3.1 This chapter will outline the approach that has been taken to the study, including its methodology, geographical scope and outputs, to achieve the study aims defined in Chapter 1.

Geographical Scope of the Study

3.2 The geographical scope of this study is summarised in Table 3.1 below.

Table 3.1: Geographical Scope of Study

Geographical Scale/Area	Type of Green Infrastructure	Level of detail
East Staffordshire Borough	Large scale rural GI	Lower level
Burton-upon-Trent and its immediate environs	Smaller scale urban GI (with links to larger scale GI)	Higher level
Uttoxeter and its immediate environs	Smaller scale urban GI (with links to larger scale GI)	Higher level

3.3 Higher level green infrastructure detail refers to the initial detailed study of all greenspace within an urban area, irrespective of size or value, to obtain a comprehensive understanding of the entire provision available to the urban populations. Having established this comprehensive evidence base, the more valuable and multi-functional resources are then drawn out and studied to establish the principal urban green infrastructure network, which provides a clearer context for the development of those assets currently delivering less value but displaying potential for improvement.

3.4 Lower level green infrastructure detail refers to the limitation of detailed study to strategic-level resources such as national designations, major watercourses and large areas of accessible open space or habitat complexes. The purpose of this restriction is to reduce the size of the study to a sensible scope, because the study of the entire Borough at the level of detail used for the urban centres would involve a considerable outlay of time and resources for relatively little gain due to the distance from the majority of the Borough's population.

Methodology

3.5 The outline methodology for the study is shown graphically in Figure 3.1 at the end of this section.

3.6 The methodology may be divided into four distinct stages, which are described in turn below. More detailed methodology information for specific assessments can be found in the relevant chapter.

Inception

3.7 This initial stage involves defining the parameters of the study. It comprised an inception meeting with East Staffordshire Borough Council to agree the detailed study methodology

and programme followed by an environmental stakeholders' workshop where the methodology was presented to the following organisations:

- East Staffordshire Borough Council
- Natural England
- Forestry Commission
- National Forest Company
- Staffordshire Wildlife Trust

3.8 Following this presentation an open discussion was held to draw on the stakeholders' collective local knowledge and to further focus the study in terms of baseline data collection.

Baseline Review and Analysis (Chapters 4-7)

3.9 The review of existing green infrastructure information involved three separate steps.

3.10 The first step was to undertake a review of the national, regional and local policy context of green infrastructure, identifying particular items of policy either in support of or conflicting with the underlying principles of green infrastructure. This information was principally collected via an internet search and direct contact with stakeholders.

3.11 The second step was to collect and review existing information relating to the physical green infrastructure of the Borough. This was undertaken at two geographic scales (see above) and given the amount of data available, was undertaken using the following seven strategic themes to provide structure and clarity:

- Landscape character
- Biodiversity and geodiversity
- Trees and woodland
- Historic environment
- Natural processes and environmental systems
- Recreation and tourism
- Access and movement

3.12 This information was collected through a number of means, including an internet search and direct contact with local authority officers, statutory agencies and environmental stakeholders. Once reviewed it was summarised (see Chapter 5 below) and a series of thematic plans were prepared showing the geographical context of the information.

3.13 The collected data regarding physical green infrastructure assets was then subjected to an objective assessment to determine which assets qualified as sufficiently valuable to be included as components of the existing green infrastructure network for the Borough. Assets were first divided into nodes (for discrete features, e.g. parks) and corridors (for linear features, e.g. watercourses) and were then assessed against scoring criteria to determine whether they qualified as these features and to what level they qualified, i.e. whether they were major of minor features. For both types of features their multi-functionality and accessibility were assessed, with additional assessments of inherent value for nodes and connectivity for corridors. For further details of this process, see Chapter 6.

3.14 The final list of major and minor nodes and corridors was then compiled into Figure 6.4, which shows the existing green infrastructure network for East Staffordshire.

3.15 The third step in this stage was to research and review current initiatives in East Staffordshire that relate to green infrastructure. A comprehensive list of initiatives was

obtained from stakeholders during the first stakeholder engagement, therefore these were researched and their core objectives and potential interaction with green infrastructure are summarised in Chapter 7.

Strategic Assessment (Chapters 8-9)

3.16 Following the collection and analysis of the baseline information, a strategic assessment was undertaken to provide the required evidence base for the selection of suitable growth locations and forward planning of green infrastructure. This comprised two steps, as follows:

- Needs assessment
- Opportunities assessment

3.17 The needs assessment was undertaken to identify existing deficits within the Borough's green infrastructure, both in terms of urban accessible greenspace and the connectivity of the overall network. The provision of urban accessible greenspace was calculated by comparing the accessible greenspace within the two towns with the National Playing Fields Association Six Acre Standard for formal open space areas and Natural England's Access to Natural Greenspace Standard (ANGSt) for natural greenspace to identify any existing deficits. Deficits in the connectivity of the existing green infrastructure network have been assessed through a visual assessment of Figure 6.4, identifying features such as isolated nodes or areas with a marked deficit of green infrastructure features. The results of these assessments are summarised in Chapter 8 and shown on Figures 8.1-8.4.

3.18 The opportunities assessment is the subjective identification of a suite of projects to achieve further green infrastructure in East Staffordshire over and above existing deficits, based upon the authors' experience of similar successful projects elsewhere in the UK. The results of this assessment are described in Chapter 9 and shown in Figure 9.1.

Vision and Delivery (Chapters 10-11)

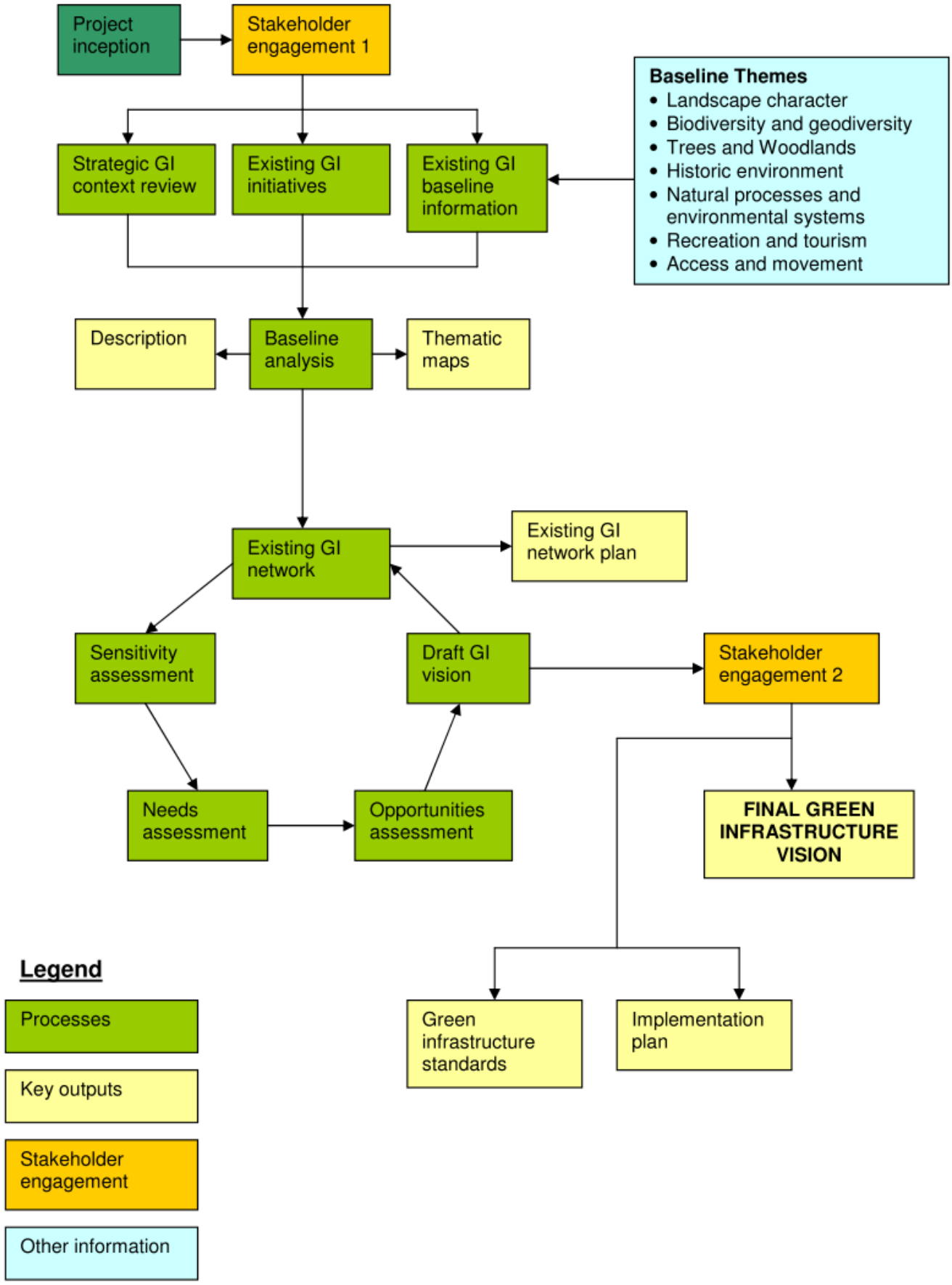
3.19 The final stage of the study involved the preparation of an overarching vision for the Borough and exploring the means of delivering this vision.

3.20 The overall vision is based upon the regional aspirations for green infrastructure, incorporating the results of this study and the opinions of the local environmental stakeholders. It is presented in Chapter 10 and demonstrated graphically in Figure 10.1. An initial draft vision was prepared and this was then presented to stakeholders at a second stakeholder engagement, to finally test it before its inclusion in this report.

3.21 This stage also included the formulation of a set of specific standards, aimed at developers, to assist them in understanding, taking account of and delivering new green infrastructure. These comprise three general standards and one relating to each of the seven strategic themes used in Chapter 5. Each standard is accompanied with a more detailed explanation of how to apply it in a local context.

3.22 The third part of this stage is an implementation plan, considering the practical implications of achieving green infrastructure protection, creation and management. It covers the requirement to establish effective delivery and funding mechanisms at the outset and uses the authors' experience, along with work undertaken by a national agency, to identify recommended approaches for East Staffordshire.

Figure 3.1: Study Methodology



Strategic Context Review

Chapter Overview

4.1 This chapter establishes the policy context within which the strategic planning of green infrastructure can occur within East Staffordshire.

4.2 It covers planning and other related policy at national, regional and local scale, outlining policy support for green infrastructure and policy requirements and aspirations which green infrastructure has the potential to deliver against, or which shapes the planning and delivery of green infrastructure.

4.3 This chapter is a relatively brief overview of the policy context of the Study, however a more comprehensive summary of the policy covered and its implications for green infrastructure may be found in Appendix 1.

National Policy

4.4 The national green infrastructure policy context of East Staffordshire is set out in full in Appendix 1.

4.5 Green infrastructure is a relatively new concept in the UK and as such it is not yet widely referenced directly in policy, although its principles and concepts are covered in a range of documents. The following national policy and key national guidance documents are relevant to green infrastructure:

- Working with the Grain of Nature: The England Biodiversity Strategy (2002)
- Biodiversity by Design: A guide for Sustainable Communities (2004)
- Conservation (Natural Habitats & Conservation) Regulations (1994)
- National Planning Policy Framework (NPPF) (2012)
- National Forest Strategy 2004 – 2014 and The National Forest Delivery Plan 2009-2014
- The Natural Choice: securing the value of nature – Natural Environment White Paper (2011)
- The UK Post-2010 Biodiversity Framework (July 2012)
- Start with the Park: Creating Sustainable Urban Green Spaces in Areas of Housing Growth and Renewal (2005)
- Does Money Grow on Trees, Cabe Space (2005)
- Actions for Housing Growth: Creating a Legacy of Great Places (2007)

4.6 No conflicts were identified between the above documents and the principles of green infrastructure and all recognise the value of open space for a variety of functions.

4.7 Of particular note are “Biodiversity by Design”, which connects biodiversity richness with sustainable development and provides masterplanning guidance on the creation of green infrastructure, and “Does Money Grow on Trees?”, which uses a number of existing case studies to demonstrate the uplift in value that effective green infrastructure can bring to built development.

Regional Policy

4.8 Whilst the West Midlands Regional Spatial Strategy was revoked in 2013, there are other regional studies and strategies which are relevant to the consideration of green infrastructure.

4.9 Regional strategies include:

- Delivering Advantage: The West Midlands Economic Strategy and Action Plan 2004-2010
- Landscapes for Living – A fifty year vision for rebuilding biodiversity in the West Midlands (revised 2008)
- A Sustainable Future for the West Midlands: Regional Sustainable Development Framework (Version 2)
- West Midlands Regional Green Infrastructure Prospectus

4.10 All of the above documents were found to support the principles of green infrastructure and no conflicts were identified.

4.11 "Restoring the Region's Wildlife" is of particular relevance to green infrastructure as it identifies a significant decline in the region's biodiversity over the last few decades and sets out a number of challenges to reverse this trend. It also outlines potential linkages between biodiversity and other land uses and functions such as agriculture, tourism and health.

4.12 The West Midlands Regional Green Infrastructure Prospectus is key to the development of green infrastructure in the region. It sets out a long term vision for regional green infrastructure, proposes how green infrastructure could fit into the existing spatial planning system and sets out a number of current best practice case studies.

Local Policy

4.13 The local green infrastructure policy context of East Staffordshire is set out in full in Appendix 1.

4.14 The following policy documents are relevant to the consideration of green infrastructure within East Staffordshire Borough:

- Emerging East Staffordshire Local Plan 2012-2031
- East Staffordshire Local Plan 2006 (saved policies)
- East Staffordshire Sustainable Community Strategy 2008 – 2020 (October 2010)
- East Staffordshire Economic Regeneration Strategy 2007 – 2012
- East Staffordshire Housing Strategy 2009 – 2014
- Local Transport Plan for Staffordshire 2011
- East Stafforeshire Borough Integrated Transport Strategy 2013-2031
- Central Rivers Area Strategy Update (2008)
- Staffordshire Biodiversity Action Plan 3rd Edition
- National Forest Biodiversity Action Plan 3rd Edition (2011)
- Outdoor Sport Delivery & Investment Plan (June 2013)
- Revised East Staffordshire Statement of Community Involvement (2013)

4.15 All of the above policy documents support the underlying principles of green infrastructure of creating and maintaining multi-functional networks of green space.

4.16 In particular, the ambitious woodland creation targets of the National Forest Strategy and the proposed improvement of green assets around Burton upon Trent, such as the Trent Washlands within the Central Rivers Project Strategy, provide strong mechanisms for the creation and improvement of green infrastructure. It is also encouraging that several of the above documents promote the involvement of local communities in the design, creation and management of green infrastructure.

Review of Existing Green Infrastructure

Chapter Overview

5.1 This chapter presents an overview of all the baseline information that has been collated as part of the green infrastructure study.

5.2 It includes the following sections:

- Review Approach
- East Staffordshire Borough
- Burton Upon Trent and its Immediate Environs
- Uttoxeter and its Immediate Environs
- Problems Encountered and Limitations
- Recommendations for Further Study

Review Approach

5.3 An understanding of the existing green infrastructure characteristics of the Borough is essential. This understanding has been obtained by collecting baseline information that relates to the existing green infrastructure features within the Borough, at the scales identified in Chapter 3. Table 5.1 below summarises the strategic themes (see Chapter 3) by which this data has been collected and the associated thematic plans on which it is presented, in addition to the descriptions in the sections below.

Table 5.1: Strategic Themes and Mapped Outputs

Strategic Theme	Baseline Mapped Outputs
East Staffordshire Borough	
• Landscape character	• Figure 5.1: Regional Character Areas • Figure 5.2: Land Description Units and Landscape Character Types • Figure 5.3: Landscape Policy Objectives
• Biodiversity and geodiversity	• Figure 5.4: Designated Biodiversity & Geodiversity Sites and Protected Species Records • Figure 5.5: Biodiversity Action Plan Habitats and Species Records
• Trees and woodlands	• Figure 5.6: Woodland Sites and Management Agreements • Figure 5.7: National Inventory of Woodland and Trees and Woodland Opportunity Mapping
• Historic environment	• Figure 5.8: Designated Historic Sites and Historic Environment Record (HER) • Figure 5.9: East Staffordshire

	Historic Landscape Character Types • Figure 5.10: Burton upon Trent Historic Landscape Character Types • Figure 5.11: Uttoxeter Historic Landscape Character Types
• Natural processes and environmental systems	• Figure 5.12: River Catchment Boundaries and Flood Risk Zones
• Recreation and tourism	• Figure 5.13: Recreation and Tourism
• Access and movement	• Figure 5.14: Access and Movement

5.4 The baseline context of East Staffordshire Borough as a whole has been reviewed first, to summarise the broad existing green infrastructure context. The review process has then focused on Burton upon Trent and Uttoxeter in turn, providing more detailed information regarding the specific existing green infrastructure value of these towns.

5.5 At the end of each section, the problems encountered and limitations relating to the baseline data are summarised and at the end of this chapter is a section recommending further work going forward to collect additional information to address these limitations.

EAST STAFFORDSHIRE BOROUGH

Landscape Character

Introduction

5.6 Landscape character is defined as an expression of pattern within the landscape itself, resulting from particular combinations of natural, historical and aesthetic factors that make one place different from another[1].

5.7 The consideration of landscape character is of high importance to the strategic assessment and planning of green infrastructure. This gives an indication of which elements of existing green infrastructure are in keeping with their local landscape character and which are incongruous, for example geometric coniferous woodland within a relatively unwooded lowland landscape with an organic field pattern.

5.8 It should be noted that strong links exist between landscape character and historical environmental character, which is detailed in a separate section below. An understanding of landscape character is essential for the planning of green infrastructure as it not only ensures that any new green infrastructure created will be in keeping with its surroundings, but also that the creation of new green infrastructure presents strong opportunities for the realisation of local landscape objectives, for example the restoration of local parkland landscapes.

Key Data Sources

- Staffordshire County Council
- Ordnance Survey

[1] Planning for Landscape Change: Supplementary Planning Guidance to the Staffordshire and Stoke on Trent Structure Plan 1996 – 2011 (Staffordshire County Council, 2001)

Staffordshire Landscape Character Assessment

5.10 In 2001, Staffordshire County Council adopted "Planning for Landscape Change: Supplementary Planning Guidance to the Staffordshire and Stoke on Trent Structure Plan 1996 – 2011". The primary purpose of this Guidance was to supplement the Staffordshire and Stoke on Trent Structure Plan 1996 – 2011 by informing planning officers and developers about policy and practice for the conservation, enhancement and regeneration of Staffordshire's rural landscapes to ensure that development is informed by and sympathetic to local landscape character and quality. This work will be revised with a update expected in 2014.

5.11 The county of Staffordshire sits in the transition zone between the lowlands and the highlands of England. Its landscape is varied, ranging from the southern plateau of Cannock Chase and fertile agricultural Trent Valley to the south, via the historic Needwood Forest on the central plain, to the northern hills with their stone field boundaries and steep, wooded cloughs forming the southern foothills of the Pennines. The geology of the County also follows these variations, from Triassic sandstones and mudstones in the south to Palaeozoic sandstones and limestones in the north.

5.12 Driven by the varied pattern of its landform and geology, Staffordshire's land use is diverse. However the predominant land use is permanent pasture, principally used for dairy farming. Arable farming occurs to the south of the County, where higher quality land and good transport connections have permitted economic enterprises, while farms to the north of the County are facing the challenges of poorer land quality and transport connections and are increasingly diversifying into other industries such as tourism.

5.13 Guidance is provided by the division of the County into a number of discrete areas whose character is identified and described, enabling planning authorities to assess development proposals against this established character of the development's location to anticipate likely impacts.

5.14 The most basic unit upon which the guidance is based is the Land Description Unit, or LDU. These are areas which were identified during an initial field survey as being the largest homogenous units sharing common physical, biological and historical characteristics. This common character enables them to be used for mapping across a wide range of disciplines. The boundaries of the LDUs within East Staffordshire are shown in Figure 5.2.

5.15 For the purposes of landscape characterisation, the LDUs have been manipulated in two separate ways. The first of these is the aggregation of LDUs into Regional Character Areas, or RCAs. These are broad, discrete geographical units which cover entire landscapes of a broadly similar and identifiable character, such as the White Peak. They are derived from the RCAs included in the Character of England map produced by the former Countryside Commission and English Nature (both now part of Natural England) in 1996, although the field survey of LDUs has enabled the boundaries of these units to be mapped in greater detail.

5.16 The second way in which LDUs have been used has been their classification by Landscape Character Type, or LCT. LCT is a method of describing landscape character which occurs at a finer scale than the RCA and is therefore of greater use for development control. LCTs are the representation of particular combinations of landscape elements and land uses that create a particular character, for example Settled Plateau Farmlands. As a means of identifying character type rather than any specific geographical area, LCTs can occur in several locations with a RCA, or even across several RCAs.

5.17 Twenty two LCTs were identified within the County, based on common geology, topography, soil type, land use, tree cover and a variety of other factors. Each LDU has been assigned to

a LCT to provide a geographical context for these descriptions and in places several adjacent LDUs of common LCT combine to form larger geographical units. The distribution of Landscape Character Type is shown in Figure 5.2.

5.18 The following list denotes all of the RCAs which occur in East Staffordshire District and the following sections will describe each one, along with the LCTs that occur within them, with particular focus on those parts that fall within East Staffordshire.

- Potteries and Churnet Valley
- White Peak
- Needwood Claylands
- Trent Valley Washlands

5.19 The locations of the RCAs within East Staffordshire are shown in Figure 5.1.

Potteries and Churnet Valley

5.20 This RCA occupies the northern part of East Staffordshire, north of Uttoxeter. It sits within the transition zone between the lowlands and uplands, comprising dissected hills and the wooded valley of the River Churnet, which is fed by a number of tributaries running through short, steep wooded valleys known locally as cloughs.

5.21 The dominant land use within the RCA is pasture, principally supporting dairy herds but also beef herds and sheep. A small amount of arable farming is present at the southern end of the RCA, however the land is generally poor, and according to the agricultural land classification is mostly Grade 4 with approximately one third Grade 3.

5.22 The Churnet Valley is a highly distinctive feature of this RCA, cutting through a smoothly undulating pastoral landscape. It has a strong historical association with industry and is regarded as one of the birth places of the industrial revolution. It still contains a large number of spoil heaps and industrial buildings and is connected to a number of canals, tram roads and railways although many are now disused.

5.23 Despite its industrial past the Churnet Valley is heavily wooded, including a high concentration of surviving ancient woodland and the predominant species is sessile oak. The valley's woodland is recognised today for delivering a range of benefits including timber, recreation and conservation interest and part of the woodland is managed by the Forestry Commission, although none of this occurs within East Staffordshire. The Churnet Valley Living Landscape Partnership (CVLLP) was set up to conserve and enhance the area's unique landscape and heritage for all to enjoy. It is supported by the Heritage Lottery Fund and managed by local people and organisations who share a vision to ensure a sustainable future for the area.

5.24 The LCTs that occur within the Potteries and Churnet Valley are summarised in Table 5.2 below.

5.25 The distribution of LCTs is shown in Figure 5.2.

White Peak

5.26 The area of this RCA within East Staffordshire represents a very small fragment of a wider area stretching northwards.

5.27 The White Peak landscape is strongly influenced by its underlying limestone geology, which has resulted in an open plateau incised by steep-sided dales.

5.28 Field patterns are generally large scale and regular and field boundaries are delineated with well-maintained walls. Stock rearing is the dominant land use, although many

limestone quarries are present within the RCA, including several within East Staffordshire, and are highly visible in this open landscape.

5.29 Woodland is sparse within this RCA and is generally restricted to valley sides, although elements of mature sycamore and declining wych elm are notable as focal points, but are not common enough to restrict views.

5.30 Limestone grassland is notable within this RCA for its high nature conservation interest, having survived within the predominantly pastoral landscape.

5.31 The part of this RCA which occurs within East Staffordshire complies with just one LCT and this is described in Table 5.3 below.

5.32 The area over which this LCT occurs is shown in Figure 5.2.

Needwood Claylands

5.33 The Needwood Claylands occupy a large part of central East Staffordshire and also extend north-eastwards into Derbyshire, across the River Dove. Their topography is that of a rolling plateau crossed by many watercourses and bounded by the Rivers Dove, Trent and Tean into which they flow.

5.34 Soils are of variable base status but generally poorly drained and this has led to a mixed farming land use of two thirds pasture (dairy with some beef and sheep) and one third arable (cereals and oilseed rape).

5.35 The eastern part of the RCA within East Staffordshire occupies the site of the historic Needwood Forest which, although not widely settled, provided timber for construction and fuel from its extensive areas of oak and holly. The Forest passed to the Crown from private ownership in 1399 and during this period much of its area was converted to wood pasture, grazed by cattle. Today the area remains relatively sparsely settled, although a number of moderate settlements such as Abbots Bromley and Marchington have established at its edge.

5.36 The area was finally disafforested and enclosed in 1801, however it is recorded that it took 20 years for clearance to be completed. This has led to the development of a landscape of regular, well-maintained hedged fields and regular conifer plantations. A significant area of broadleaved woodland remains, however, on the escarpment to the south of the River Dove and that much of this is ancient, forming one of the largest concentrations in the County. Also of note are the commercial plantations of the Duchy of Lancaster, producing high quality pedunculate oak and larch and also possessing significant populations of wild service tree and small leaved lime. Adding to the well-treed character of the landscape are landscaped parks and gardens created during the 19th Century.

5.37 The LCTs occurring within the Needwood Claylands are summarised in the Table 5.4 below.

5.38 The distribution of these LCTs is shown in Figure 5.2.

Trent Valley Washlands

5.39 The Trent Valley Washlands occupy the broad, flat terraces of the Rivers Trent and Dove at the south-eastern end of East Staffordshire.

5.40 This area has a long history of settlement, having been colonised by the late Neolithic period with extensive evidence of activity during the prehistoric, Roman and medieval periods which has resulted in a rich historic landscape of cropmarks, historic routes and field boundaries and medieval settlements. During the industrial revolution this area also

experienced significant activity in the form of canal construction, in particular the connection of the Trent and Mersey and Coventry Canals at Fradley in the late 18th Century.

5.41 Agricultural land quality in this RCA is generally high, around Grade 3, and this has led to the area supporting a dominant arable land use, in comparison to the majority of the Borough. The large, regular fields associated with this form of farming and their hedges and hedgerow trees are characterising features, controlling views.

5.42 Woodland is generally limited within this landscape, although lines of willow, alder and poplar mark the locations of dykes and watercourses. Crack willow is the most common and distinctive tree species and the landscape supports a range of other willow species. Native black poplar is notable for its recent decline, having been replaced by modern hybrids. The only significant area of woodland within this RCA is located to the north of Lichfield, outside of East Staffordshire.

5.43 This RCA displays significant conservation interest, in the form of wet grasslands and open water habitats that support populations of over-wintering waders and wildfowl. It is also notable that the open arable farmland within this RCA supports the County's largest population of corn bunting.

5.44 The LCTs occurring within the Trent Valley Washlands are summarised in Table 5.5 below.

5.45 The distribution of these LCTs is shown in Figure 5.2.

Landscape Policy Objectives

5.46 To enable the Guidance to fully inform the spatial planning of the Borough, it was considered necessary to build on the identification of landscape character with a statement of policy towards the future management of the Borough's landscapes.

5.47 To derive a set of policy objectives, an initial assessment of landscape quality was made. This involved the comparison of each LDU against the characteristic features of the LCT that it had been attributed to, to derive a measure of its compliance and hence quality.

5.48 In particular, the following criteria were used to evaluate each LDU3[2]:

- Presence of characteristic features
- Absence of incongruous features
- Visual and functional condition
- Survival of cultural pattern
- Continuity
- Habitat survival at landscape scale

5.49 The results of this evaluation were used by Staffordshire County Council to grade each LDU into one of five landscape quality categories from very high to very low and objectives were formulated for each quality category, as follows:

- Very high quality: Active landscape conservation
- High quality: Landscape maintenance
- Moderate quality: Landscape enhancement
- Low quality: Landscape restoration
- Very low quality: Innovative landscape regeneration

[2] Detailed explanations of these criteria and the assessment method may be found within Volume 2 of the Staffordshire Landscape Character Assessment.

5.50 The results of this process are shown in Figure 5.3, produced by Staffordshire County Council, which shows the geographic distribution of these policy objective zones, as well as those areas identified as being of highest sensitivity and those identified as being at risk. As with the mapping of LCTs, where adjacent LDUs of the same objective occur, these have been combined to form larger geographical units.

Table 5.2: Potteries and Churnet Valley Landscape Character

POTTERIES AND CHURNET VALLEY				
Landscape Character Type & Sub-Type (where applicable)	**Characteristic Landscape Features**	**Incongruous Landscape Features**	**Current Issues**	**Sensitivity to Development & Land Use Change**
Riparian alluvial lowlands	• Flat river valley with pastoral floodplain farming • Tree species along watercourses are poplar, willow and alder • Broadleaved estate woodlands • Parkland fencing • Hawthorn hedges and hedgerow trees	• Wire fencing replacing hedges	• Poor survival of characteristic (riparian and wetland) vegetation	Very sensitive
Dissected sandstone uplands	• Small to medium scale field pattern of hedgerows with some introduction of stone walls • Hedgerow trees • Strongly undulating landform with small stream valleys • Low intensity pasture farming	• Stock control fencing replacing hedges and walls • Isolated field trees	• Decline in condition of characteristic landscape features, e.g. hedges • Poor survival of characteristic semi-natural vegetation (ancient woodland, semi-natural grassland and heathland)	Locally very sensitive

Dissected sandstone cloughs and valleys	• Steeply sloping landform with incised valleys • Broadleaved and conifer woodland • Low intensity pastoral farming	• Sand and gravel quarries	• Decline in the condition of characteristic landscape features • Quarrying • Loss of characteristic semi-natural vegetation (ancient woodland, semi-natural grassland and heathland)	Locally sensitive
Dissected sandstone cloughs and valleys Forest sub-type	• Large broadleaved woods • Large coniferous plantations • Parkland • Deeply dissected stream and river valleys • Small winding sunken lanes • Low intensity pasture farming	• Quarrying • Alton Towers major theme park • Deteriorating hedgerows	• Decline in the condition of some landscape features • Introduction of incongruous features	Very sensitive
Gritstone highland fringe	• Prominent upland ridge landform • Gritstone walls • Small ancient lanes • Pastoral farming • Extensive views • Conifer plantations • Wooded valleys • Heathland	• Deteriorating walls and hedges • Poor quality pasture	• Decline in visual condition of characteristic landscape features	Very sensitive

Table 5.3: White Peak Landscape Character

WHITE PEAK				
Landscape Character Type & Sub-Type (where applicable)	**Characteristic Landscape Features**	**Incongruous Landscape Features**	**Current Issues**	**Sensitivity to Development & Land Use Change**
Limestone highland fringe	• Intact limestone walls in a regular geometric pattern • Smooth, strongly rounded landform • Open upland character • Pasture farming • Sycamore woodland on high ground and farm shelterbelts	• Extensive limestone quarries • Stock control fencing	• Introduction of incongruous elements at very different scales • Loss of characteristic semi-natural vegetation, in particular grasslands	Very sensitive

Table 5.4: Needwood Claylands Landscape Character

NEEDWOOD CLAYLANDS				
Landscape Character Type & Sub-Type (where applicable)	**Characteristic Landscape Features**	**Incongruous Landscape Features**	**Current Issues**	**Sensitivity to Development & Land Use Change**
Settled plateau farmlands	• Ancient healthy oak woodland and new plantations • Pronounced rolling ridge and valley landform • Large farms • Intensive mixed pastoral and arable	• Large numbers of fence lines replacing hedgerows • Gappy hedgerows Stunted hedgerow oaks • Exotic tree species	• Loss of characteristic landscape features • Poor condition of remaining characteristic landscape features • Introduction of incongruous landscape features	Not provided within Assessment

	farming • Large scale fields Parkland		• Poor representation of Characteristic semi-natural vegetation (ancient woodland, wood pasture and unimproved grassland)	
Settled plateau farmlands Estates sub-type	• Broadleaved woodlands • Steep sided stream valleys • Extensive hedgerow oaks • Intact hedges • Manors/parkland • Narrow lanes and hedge banks • Dissected rounded landform • Pastoral farming	None identified	• Loss of some semi-natural vegetation (ancient woodland, wood pasture and unimproved grassland • Relatively recent landscape origin – lacks “time depth”	Very sensitive
Surveyor-enclosed plateau farmlands	• Evenly spaced and aged hedgerow oaks • Extensive woodland edges • Neatly trimmed hedges • Geometric hedgerow pattern • Flat plateau landform • Arable and improved pasture farming	• Fencing replacing hedgerows • Airfield	• Loss of some semi-natural vegetation (ancient woodland and unimproved grassland) • Landscapes identified as being at risk of loss of quality at The Warren (NE of Blithfield Reservoir) and around Barton	Locally sensitive

			Gate and Forest Thorn (NW of Barton under Needwood)	
Settled plateau farmland slopes	• Hedgerow oaks and ash trees Broadleaved and conifer woodlands • Irregular hedged field pattern • Narrow lanes and hedge banks • Small streams and field ponds Manors and parkland • Undulating, sloping landform	• Extensive fencing replacing hedgerows • Agricultural intensification	• Loss of characteristic landscape features • Poor survival of characteristic semi-natural vegetation (ancient woodland and semi-natural grasslands) • Landscape indentified as being at risk around Abbots Bromley	Locally sensitive
Settled farmlands	• Large numbers of hedgerow oak and ash • Strong irregular field pattern • Narrow lanes and hedge banks • Undulating sloping landform • Steep wooded stream valleys • Broadleaved woodlands and conifer plantations • Ancient village settlements • Parkland	• Extensive fencing	• Loss of characteristic semi-natural vegetation (ancient woodland, ancient hedgerows and semi-natural grasslands) • Landscape at risk identified at Yoxall	Not provided within Assessment

Table 5.5: Trent Valley Washlands Landscape Character

TRENT VALLEY WASHLANDS				
Landscape Character Type & Sub-Type (where applicable)	**Characteristic Landscape Features**	**Incongruous Landscape Features**	**Current Issues**	**Sensitivity to Development & Land Use Change**
Riparian alluvial lowlands	• Flat valley landform and floodplain • River channel with meanders, shallows and marginal vegetation • Canal • Waterside tree species • Drainage channels and ditches • Hedgerow oaks • Narrow lanes • Poplar planting and small woodlands • Flood pasture and hedged fields • Arable farming	• Sand and gravel extraction • Post and wire fencing • Disintegrated field pattern	• Loss of characteristic landscape features • Poor condition of remaining characteristic landscape features • Poor survival of historic elements contributing to landscape character, e.g. field, settlement and road patterns • Poor representation of characteristic semi-natural vegetation (riparian and wetland) • Introduction of incongruous landscape features	Not provided within Assessment
Terrace alluvial lowlands	• Small broadleaved woodland • Hedged fields and hedgerow trees • Waterside tree species along ditches	• Stag headed trees • Sand and gravel quarrying • Horse pasture • Fencing	• Poor representation of characteristic semi-natural vegetation • Loss of some characteristic	Not provided within Assessment

	• Flat landform • Intensive mixed pasture and arable farming • Large fields • Lush improved pasture • Straight roads and small winding lanes • Canal		landscape features • Decline in condition of characteristic landscape features • Increase in representation of incongruous features • Landscape at risk identified around Barton under Needwood	

Biodiversity and Geodiversity

Introduction

5.51 The support and protection of biodiversity is a critical function of green infrastructure. Almost all forms of green infrastructure have the potential to contribute to the conservation of biodiversity, from providing specific habitat types for rare specialist species to providing wildlife with the means of moving around the landscape between, for example, feeding and breeding areas.

5.52 It is also important to conserve geodiversity and in particular those sites where exposed strata can be viewed, such as redundant quarry faces and railway cuttings. Green infrastructure has the potential to assist this process through the retention and protection of important geological sites through their incorporation into well-managed open space frameworks.

Key Data Sources

- Natural England
- Staffordshire Wildlife Trust
- Staffordshire County Council
- East Staffordshire Borough Council

Designations Summary

5.53 East Staffordshire contains the following biodiversity and geodiversity designations, shown in Table 5.6 below. These will be described in the following sections.

Table 5.6: Biodiversity Designations Summary

Designation	Importance	Frequency
Ramsar Sites, Special Protection Areas and Special Areas of Conservation (SAC)	European	0
Sites of Special Scientific Interest (SSSI)	National	6
Local Nature Reserves (LNR)	Local	1
Sites of Biodiversity Interest (SBI)	Local	155
Biodiversity Alert Sites	Local	77

Sites of Special Scientific Interest (SSSI)

5.54 East Staffordshire contains the following six sites which have been designated as nationally important Sites of Special Scientific Interest.

- Stanton Pastures and Cuckoocliff Valley
- Goat Lodge
- Blithfield Reservoir
- Forest Banks
- Braken Hurst
- Old River Dove, Marston on Dove

5.55 The following sections describe each site in outline, however full notification details are reproduced in Appendix 2 and the location of each site is shown in Figure 5.4.

Stanton Pastures and Cuckoocliff Valley

5.56 This large 108.9 ha site is located at the northern extremity of East Staffordshire, straddling the border with Staffordshire Moorlands District.

5.57 It has been designated on account of its extensive unimproved grassland, heathland and broadleaved woodland habitats, which are particularly diverse because the site occupies the transition point between Carboniferous limestone and acid Triassic sandstone underlying geology. In addition to the varying soil chemistry driven by its geology, the site also exhibits varying drainage characteristics from marshy through to dry and free-draining, which further enhances its habitat diversity.

5.58 The majority of the site comprises neutral grasslands, while acidic grassland and wet heath occur on the highest ground to the west of Bullgap Lane.

5.59 Heathland occurs in the southern parts of the site, at Brown Edge and Blake Low, while thin and free-draining soils over limestone influence the vegetation to the north of Thorswood Plantation, resulting in species-poor calcareous grassland. The valley of Ellishill Brook to the north-east of the site supports ancient woodland, which varies with the underlying geology from ash-dominated woodland on limestone to oak-dominated woodland on sandstone.

5.60 Two ponds are also present in the central part of the site, west of Bullgap lane, which support a range of aquatic and marginal vegetation.

Goat Lodge

5.61 This is a 12ha area of broadleaved woodland and open ground within the larger Bagot Forest complex to the north of Abbots Bromley.

5.62 It has been designated for two reasons. The first is because it is the only remaining area of broadleaved woodland within Bagot Forest that has not been planted with conifers and as such is a refuge for oak woodland flora and fauna.

5.63 The second reason for designation is a heronry located within the site, which supports a nationally important breeding population of grey herons.

5.64 The dominant trees within the woodland are even-aged pedunculate and sessile oak, with occasional silver birch and alder. It also contains a meadow thought to be a former deer lawn that is notable for its population of wild daffodils.

Blithfield Reservoir

5.65 Blithfield Reservoir is Staffordshire's largest area of standing water and its entire area and an element of its surrounding land, particularly to the north, has been designated, totalling 435.6ha.

5.66 The site has been designated on account of its considerable ornithological interest, being the second most popular inland wintering site for wintering waterfowl in the Midlands, second to Rutland Water in Leicestershire.

5.67 A number of important habitats have also developed on the margins of the reservoir, including mud flats, swamp and willow carr. The designation also includes Duckley Plantation on the eastern shore, which not only shelters and screens the reservoir but also supports its own associated bird populations. It is also noted that the pasture adjoining the reservoir is grazed by regionally significant numbers of wigeon.

Forest Banks

5.68 This site comprises three discrete areas totalling 45.6ha on the northern edge of the Needwood Forest area, where it falls steeply northwards to the Dove Valley.

5.69 The site has been designated because it represents some of the least modified and most diverse remnants of the scarp woodlands of Needwood Forest. The dramatic changes in topography, as well as varying soil type have resulted in a number of different woodland types being present in a relatively small area, including some which are now very uncommon in Staffordshire. The site is also noted for its moth and butterfly populations, supporting more than 20 notable species.

5.70 The areas of the site which occupy the Needwood plateau lie on poorly-drained acidic soils and support pedunculate oak, sessile oak and birch woodland with occasional sweet chestnut and an understorey of rowan and holly.

5.71 The woodland on the steep slopes lie on a much more base-rich soil and therefore support a mixed lowland broadleaved woodland of ash, pedunculate oak, wych elm and small- and large-leaved lime (the only site in Staffordshire where these two species occur together), along with wild service tree, field maple and invading sycamore. Hazel is a common understorey species throughout, along with dogwood, crab apple and spindleberry.

5.72 The woodland at the base of the escarpment is dominated by alder, which continues into the Dove valley.

5.73 The woodland areas support rich and typical ground flora populations with several rare species, their compositions following the variations in woodland type driven by soil chemistry.

Braken Hurst

5.74 This site, spanning 25.9ha in total comprises two discrete areas of a wider woodland site to the west of Burton upon Trent.

5.75 It has been designated because it is one of the largest and least altered remnants of the extensive woodland and wood pasture that covered the historic Needwood Forest. It is also highly varied, demonstrating a variety of structure and composition types that represent the range of species and silvicultural systems formerly present in Needwood.

5.76 The dominant species are hazel and pedunculate oak on acid boulder clay soils, however lighter soils are also present supporting stands of sessile oak. Birch is also present throughout both these stand types and the woods contain understorey and ground flora typical of oakwoods. Some areas of acid sand and gravel soils also occur within the site and these support open birch-sessile oak woodland with mature holly pollards, indicative of former management as wood pasture.

5.77 The River Swarbourn forms the western boundary of the site and an area of alder woodland is present on the wet soils associated with the river. As well as alder of both coppice and standard form, this woodland also contains ash, pedunculate oak and hazel. It is also noted that the wettest parts of this woodland support a very rich ground flora.

5.78 The western block is bisected by a wayleave and this contains a scrubby habitat with glades which supports bird and invertebrate populations, as well as a locally rare population of

wood spurge. Other invertebrate populations within the site include a notable assemblage of moths and butterflies and several rare species of beetle associated with mature oak trees.

Old River Dove

5.79 This small 1.8ha site is a cut-off meander of the River Dove, located to the north of Rolleston on Dove.

5.80 The site has been designated on account of its open water, tall mixed fen and swamp communities.

5.81 The open water supports populations of yellow and white water-lily and unbranched bur-reed. The swamp habitat at the water's edge is dominated by branched bur-reed, with populations of water horsetail, common spike-rush and water-plantain, as well as flowering rush.

5.82 Reed canary-grass is locally dominant throughout and the drier fen areas also contain common marsh-bedstraw and water figwort.

5.83 Patchy bands of alder and grey sallow are present on the banks, resulting in varied shade conditions along the site's length with the central part particularly open.

5.84 The site is also known for its dragonfly population, with eight species having been recorded.

Local Nature Reserve: Scalpcliffe Hill

5.85 Scalpcliffe Hill Local Nature Reserve comprises mixed woodland of mainly oak and sycamore with typical ground flora and semi-improved neutral grassland on a steep hill rising eastwards from the River Trent corridor. A number of scattered mature oak trees of considerable girth are present at the eastern end of the site. Evidence of badger activity has been recorded within the woodland.

5.86 The woodland is located to the west of the site, while the eastern part is grassland, allowing panoramic views over the surrounding landscape.

5.87 The site is almost entirely bounded by residential development, but connected to Tower Woods and Stapenhill Cemetery at its eastern end.

5.88 Several exotic species have been recorded within the site, including cherry laurel, Japanese laurel and the highly invasive Japanese knotweed.

Sites of Biological Interest

5.89 Sites of Biological Interest (SBIs) are sites of county importance which have been designated by Staffordshire County Council to enable their protection under local policy.

5.90 They are locally defined as sites which are the best remaining examples within the county of habitats which are valued for their naturalness, diversity and rarity, but which do not meet the criteria for SSSI designation.

5.91 East Staffordshire contains 155 SBIs, the main concentrations occurring within the Needwood Forest and Weaver Hills areas.

5.92 Figure 5.4 shows the distribution and area of these designations.

Biodiversity Alert Sites

5.93 Biodiversity Alert Sites (BASs) are sites of county importance which are of lesser significance than SBIs because of damage, disturbance, smaller size or lower intrinsic quality.

5.94 East Staffordshire contains 77 BASs, which are relatively evenly distributed throughout the Borough.

5.95 Figure 5.4 shows the distribution and area of these designations.

Staffordshire Grassland Inventory

5.96 Staffordshire Grassland Inventory is a record of important areas of unimproved and semi-improved grasslands within the County.

5.97 East Staffordshire contains approximately 50 sites included on the Inventory, the most notable being a site called Stonepit Hills occupying approximately 30 hectares to the west of Tutbury and a complex of sites at the northern end of the Borough, associated with the Weaver Hills, as shown in Figure 5.4.

Regionally Important Geological Sites

5.98 East Staffordshire contains three Regionally Important Geological Sites, as follows:

- The Walk, Weaver Hills
- Buttermilk Hall
- Fauld Crater

The Walk, Weaver Hills

5.99 This is an area of the south-facing slopes of the Weaver Hills where several limestone outcrops can be seen amongst pasture, including fossils at the south-eastern end.

Buttermilk Hall

5.100 This is a site where almost the full thickness of the bed of tea-green marl that occurs in this location is exposed. Trace fossils have also been found in the vicinity of this site.

Fauld Crater

5.101 This is an explosion crater, formed by the accidental detonation of ammunition being stored in gypsum mines in 1944. Several outcrops of gypsum are visible on the edge of the crater.

5.102 The locations of these sites are shown in Figure 5.4.

Locally Important Geological Sites

5.103 Four sites have been registered as being of local geological importance. These are:

- Horninglow Clay Pit
- Winshill Quarry
- Ashby Road Excavation
- Bearwood Hill

Tame and Trent River Valleys Biodiversity Audit

5.104 In June 2007, Staffordshire Wildlife Trust published “A Biodiversity Audit of the Tame and Trent River Valleys in Staffordshire (including the Central Rivers Initiative[3] and the Tame Valley Wetlands Project Areas) 2006-7”.

[3] See Chapter 7 for details of local green infrastructure initiatives

5.105 The report details the findings of biodiversity surveys of the Tame and Trent river valleys with the aim of developing a series of site-specific and non site-specific recommendations aimed at promoting measures to enhance biodiversity and deliver local Biodiversity Action Plan targets (see below).

5.106 A Phase 1 habitat survey was undertaken for the entire project area, which found that the dominant habitats in both the Central Rivers Initiative (CRI) area and the Tame Valley Wetlands Project (TVWP) area were arable, improved grassland, poor semi-improved grassland and amenity grassland. It was observed that the CRI area contained a more diverse mix of semi-natural habitats and also a greater proportion of wetland habitat than the TVWP area, in which semi-natural habitats are poorly represented.

5.107 The report then describes the condition of each Phase 1 habitat type in outline.

5.108 Targeted species surveys of white clawed crayfish, great crested newt, grass snake, otter, water vole and snipe were also carried out. For each species the report gives an overview of their status, an assessment of this overall habitat within the study area, identification of key sites and a series of recommendations to improve conditions for each species.

5.109 The report then identifies 17 key sites with the greatest potential for biodiversity improvement, of which the following seven fall within East Staffordshire:

- Clay Mills, Egginton and Wetmore
- Upper Mills Farm
- Branston and Drakelow
- Newbold Quarry
- Tucklesholme Quarry
- Barton Quarry and Catton Hall
- Wychnor

5.110 For each site, the site's area and ownership is given, along with a brief description, set of recommendations and additional comments.

Staffordshire Biodiversity Action Plan

5.111 The Staffordshire Local Biodiversity Action Plan (BAP) contains individual plans for the following species and habitats:

Habitats

- Ancient and semi-natural broadleaved woodland
- Ancient/diverse hedgerows
- Arable field margins
- Canals, lakes and ponds
- Inland saltmarsh
- Lowland acid grassland
- Lowland calcareous grassland
- Lowland heathland
- Lowland wet grassland
- Lowland wood pasture and parkland
- Peat bogs
- Reedbeds
- Rivers and streams

- Unimproved neutral grassland
- Wet woodland

Species: Mammals
- Brown Hare
- Noctule bat
- Otter
- Pipistrelle bat
- Water Vole

Species: Amphibians
- Great Crested Newt
- Natterjack Toad

Species: Birds
- Grey partridge
- Lapwing
- Nightjar
- Skylark
- Snipe
- Woodlark

Species: Fish
- Salmon

Species: Insects
- Ground nesting bees and wasps
- Red-eyed damselfly
- Small pearl-bordered fritillary butterfly
- White faced darter dragonfly

Species: Other Invertebrates
- White clawed crayfish

Species: Plants
- Black poplar
- Dyers greenwood
- Floating water plantain
- Cowslip

Species: Fungi
- Pink waxcap

5.112 The Staffordshire Landscape Character Assessment has used its geographical framework of Land Designation Units and their representative Landscape Character Types to undertake an ecological assessment in conjunction with the landscape assessment and has attributed priority scores to each BAP target for each BAP habitat in each LDU. Each target is given a score of very high, high, medium and low. The results of this assessment are summarised in Tables 5.7 to 5.10 below (one for each Regional Character Area), in which the targets are colour coded according to priority, as follows:

- Red = very high priority

- Orange = high priority
- Yellow = medium priority
- Green = low priority

5.113 Where a colour coding has not been given, this is because the listed target is inappropriate for the LDUs within that particular LCT. This is usually because the listed habitat is not present within the LDUs and is not appropriate to the LCT therefore there is no desire for its creation.

5.114 These tables will form a useful tool to guide the future creation and management of green infrastructure where biodiversity is a priority, for example if development is taking place in the settled plateau farmland slopes to the south of Uttoxeter then the highest priority will be maintaining the quality of rivers and streams, with additional high priorities as shown for ancient woodland, hedgerows, canals, lakes, ponds and peat bogs.

Table 5.7: Potteries and Churnet Valley Biodiversity Priorities

POTTERIES AND CHURNET VALLEY						
Habitat Type	**Objective or Target**	**Riparian Alluvial Lowlands**	**Dissected Sandstone Uplands**	**Dissected Sandstone Cloughs and Valleys**	**Dissected Sandstone Cloughs and Valleys: Forest**	**Gritstone Highland Fringe**
Ancient/semi-natural broadleaved woodland	Maintain and enhance					
	Restore degraded sites					
	Recreate/regenerate					
Ancient/diverse hedgerows	Maintain and manage					
	Maintain trees					
Hedgerows	Plant species-rich hedges					
Arable field margins	Maintain, improve and restore					
Canals, lakes and ponds	Maintain and enhance water bodies and catchments					
	Increase the number of such features					
Lowland acidic grassland	Maintain, enhance, restore and buffer					
	Prevent further losses (except to heathland restoration)					
	Increase the number of such sites					
	Link fragmented sites through habitat creation					
Lowland heathland	Protect existing heaths from development and damaging activities					
	Re-create or create new heathlands					
Lowland wet grassland	Maintain and enhance existing areas					
	Restore degraded areas					
	Create new areas					
Reedbeds	Maintain and create					
Rivers and streams	Maintain and improve the quality and quantity of water					
	Maintain the quality of all natural existing channel features					
Unimproved neutral grassland	Maintain and safeguard existing areas					
	Restore					
	Link adjacent sites through habitat creation					
	Create/re-create new areas					
Wet woodland	Maintain, enhance and restore					
	Prevent further loss					
	Increase the number of such woodlands					

Table 5.8: White Peak Biodiversity Priorities

WHITE PEAK		
Habitat Type	**Objective or Target**	**Limestone Highland Fringe**
Ancient/semi-natural broadleaved woodland	Maintain and enhance	
	Restore degraded sites	
	Recreate/regenerate	
Ancient/diverse hedgerows	Maintain and manage	
	Maintain trees	
Hedgerows	Plant species-rich hedges	
Arable field margins	Maintain, improve and restore	
Canals, lakes and ponds	Maintain and enhance water bodies and catchments	
	Increase the number of such features	
Lowland acidic grassland	Maintain, enhance, restore and buffer	
	Prevent further losses (except to heathland restoration)	
	Increase the number of such sites	
	Link fragmented sites through habitat creation	
Lowland calcareous Grassland	Safeguard remaining areas and adjoining land	
	Restore semi-improved grasslands	
	Link fragmented sites through habitat creation	
Rivers and streams	Maintain and improve the quality and quantity of water	
	Maintain the quality of all natural existing channel features	
Unimproved neutral grassland	Maintain and safeguard existing areas	
	Restore	
	Link adjacent sites through habitat creation	
	Create/re-create new areas	

Table 5.9: Needwood Claylands Biodiversity Priorities

NEEDWOOD CLAYLANDS						
Habitat Type	**Objective or Target**	**Settled Plateau Farmlands**	**Settled Plateau Farmlands: Estates**	**Surveyor-Enclosed Plateau Farmlands**	**Settled Plateau Farmland Slopes**	**Settled Farmlands**
Ancient/semi-natural broadleaved woodland	Maintain and enhance					
	Restore degraded sites					
	Recreate/regenerate					
Ancient/diverse hedgerows	Maintain and manage					
	Maintain trees					
Hedgerows	Plant species-rich hedges					
Arable field margins	Maintain, improve and restore					
Canals, lakes and ponds	Maintain and enhance water bodies and catchments					
	Increase the number of such features					
Lowland calcareous grassland	Safeguard remaining areas and adjoining land					
	Restore semi-improved grasslands					
	Link fragmented sites through habitat creation					
Lowland wet grassland	Maintain and enhance existing areas					
	Restore degraded areas					
	Create new areas					
Lowland wood pasture and parkland	Maintain and safeguard					
	Restore regarded sites					
Peat bogs	Maintain and enhance					
	Restore former raised bogs					
Reedbeds	Maintain and create					
Rivers and streams	Maintain and improve the quality and quantity of water					
	Maintain the quality of all natural existing channel features					
Unimproved neutral grassland	Maintain and safeguard existing areas					
	Restore					
	Link adjacent sites through habitat creation					
	Create/re-create new areas					
Wet woodland	Maintain, enhance and restore					
	Prevent further loss					
	Increase the number of such woodlands					

Table 5.10: Trent Valley Washlands Biodiversity Priorities

TRENT VALLEY WASHLANDS			
Habitat Type	**Objective or Target**	**Riparian Alluvial Lowlands**	**Terrace Alluvial Lowlands**
Ancient/semi-natural broadleaved woodland	Maintain and enhance		
	Restore degraded sites		
	Recreate/regenerate		
Ancient/diverse hedgerows	Maintain and manage		
	Maintain trees		
Hedgerows	Plant species-rich hedges		
Arable field margins	Maintain, improve and restore		
Canals, lakes and ponds	Maintain and enhance water bodies and catchments		
	Increase the number of such features		
Lowland acidic grassland	Maintain, enhance, restore and buffer		
	Prevent further losses (except to heathland restoration)		
	Increase the number of such sites		
	Link fragmented sites through habitat creation		
Lowland wet grassland	Maintain and enhance existing areas		
	Restore degraded areas		
	Create new areas		
Reedbeds	Maintain and create		
Rivers and streams	Maintain and improve the quality and quantity of water		
	Maintain the quality of all natural existing channel features		
Unimproved neutral grassland	Maintain and safeguard existing areas		
	Restore		
	Link adjacent sites through habitat creation		
	Create/re-create new areas		
Wet woodland	Maintain, enhance and restore		
	Prevent further loss		
	Increase the number of such woodlands		

BAP Habitat and Species Mapping

5.115 A local mapping exercise has been undertaken of a variety of UK Biodiversity Action Plan habitats and species records. The results of this exercise are shown in Figure 5.5.

5.116 Table 5.11 below shows the total recorded area of each habitat within East Staffordshire. It is notable that the total area of recorded habitat represents a small percentage of the overall area of the Borough, although the principal reason for this is a current lack of survey information as opposed to the deficit in habitat area that Figure 5.5 implies[4]. It is encouraging, however, that a large area of wet woodland has been recorded in Bagot Forest

[4] Telephone conversation with Staffordshire Wildlife Trust, December 2007

to the north of Abbots Bromley and that the rivers bounding the Borough support significant areas of floodplain grazing marsh.

Table 5.11: Recorded BAP Habitat Areas

BAP Habitat Type	Total area (ha)
Wet woodland	1016.89
Coastal and floodplain grazing marsh	497.60
Lowland mixed deciduous woodland	272.40
Undetermined grassland	194.80
Lowland heathland	38.80
Fens	35.60
Lowland meadows	6.90
Upland mixed ashwoods	5.36
Reedbeds	3.45
Undetermined woodland	2.61
Purple moor grass	1.74
BAP habitat total	**2076.15**

5.117 Figure 5.5 shows that the records of BAP species appear to be clustered around the identified BAP habitats and also the Borough's rivers and wetlands (in particular Branston Water Park). The high density of species records around the urban areas of Uttoxeter, Yoxall and others may be explained by the higher likelihood of a species being seen and recorded near to population centres.

5.118 Figure 5.5 also shows that work has been done locally in grouping woodland, heathland and grassland habitats into networks and these present useful evidence bases in identifying green infrastructure improvement opportunities at the Borough level. This is particularly the case in the Needwood Forest area, where several fragmented woodland networks occur and also in the Weaver Hills, where a similar situation exists for grassland and heathland.

Trees and Woodlands

Introduction

5.119 Trees and woodland often form the core of green infrastructure frameworks, providing a wide variety of beneficial functions including the following:

- Screening of incongruous landscape elements
- Improvement of urban environmental quality
- Provision of habitat for a wide variety of species
- Sequestering of carbon dioxide
- Provision of both formal and informal recreation
- Provision of green tourism
- Protection of archaeological remains
- Production of biomass fuel for renewable heat and electricity
- Production of sustainable building materials
- Provision of hydrological benefits
- Improvement of quality of life and physical and mental well-being

5.120 The incorporation of existing woodland, particularly ancient woodland, into green infrastructure frameworks can deliver significant benefit by restoring landscape connections that have previously been lost and buffering the valuable woodland cores against external

influences such as herbicide drift and the effects of climate change.

5.121 Ancient woodland is of particular importance. It is the country's richest habitat[5] and is irreplaceable, having a unique set of conditions over hundreds of years on which specialist species depend. Ancient woodland is also a very popular destination for informal recreation, with great visual diversity including gnarled veteran trees and assemblages of spring flowers such as bluebell and wood anemone that draw visitors from considerable distances.

Woodland Statistics

5.122 East Staffordshire contains a total woodland area of 3,307 hectares, equivalent to 8.5% of the total land area of the Borough, greater than the regional average of 7.8% and marginally greater than the national average of 8.4%.

5.123 Of the total 3,307 hectares of woodland within the Borough, approximately 1,500 hectares are ancient, representing approximately 45% of the total woodland area or almost 4% of the total land cover in the Borough. The proportion of ancient woodland in East Staffordshire compares very favourably to the national average proportion of around 30% and the percentage of ancient woodland as land cover is one third greater than the national average.

5.124 The distribution and type of woodland in the Borough is shown in Figures 5.6 and 5.7.

National Forest

5.125 The most important feature of this aspect of green infrastructure is the National Forest, a widely acclaimed national scheme that has been running for almost 15 years with the goal of transforming the degraded coalfield landscapes of the Midlands to a densely wooded landscape, similar in character to the New Forest. The eventual aim of the National Forest is to increase the overall woodland cover within the project area from its starting point of 6% to a target of 33% through positive partnership working with landowners.

5.126 To date, the National Forest initiative has succeeded in the creation of almost 900 hectares of new woodland within East Staffordshire, over half of which is located within Burton upon Trent and its environs. The vast majority of this woodland is accessible to the public and the larger woodland complexes such as the Pool Green/East Hill/Lawn's Farm/Sinai Park complex (total 116ha) provide sub-regional scale recreational resources that will continue to steadily improve in character, diversity and interest for hundreds of years if properly managed.

5.127 Further details of the National Forest are given in Chapter 7 below and the area of East Staffordshire that falls within the National Forest is shown in Figure 5.6.

Needwood Forest

5.128 The Needwood Forest occupies a plateau to the west of Burton upon Trent. Historically this area was well-wooded with mostly oak and holly and was used for hunting, timber and fuel. In Victorian times the plateau was cleared and enclosed for agriculture, although significant area of woodland remains around large country houses such as Hoar Cross Hall, Dunstall Hall and Hanbury Hall and also on the steep scarps where the plateau falls to the Dove and Trent valleys.

5.129 Further details of the Needwood Forest area are available in the landscape character description above.

[5] Keepers of Time: A Statement of Policy for England's Ancient & Native Woodland (DEFRA/Forestry Commission, 2005)

Bagot Forest

5.130 Bagot Forest is a heavily wooded part of the Needwood plateau, located to the west of Needwood Forest. It is almost entirely owned by the Forestry Commission and the majority of its area has been planted with commercial conifer crops. It is noted, however that a significant part of this woodland has been recorded as wet woodland (see Figure 5.5) and therefore represents a strong potential for habitat creation.

Regional Forestry Framework: Woodland Opportunity Mapping

5.131 The Regional Forestry Framework for the West Midlands was launched in October 2004. One of the principal outputs of this strategy was the production of a Woodland Opportunities Map for the region. The Woodland Opportunities Map will evolve further but in its current form it comprises six maps: two priority maps and four theme maps (broad regional landscape, biodiversity, and cultural heritage and access themes).

5.132 The two priority maps show “broad brush” regional priorities for the targeting of woodland creation and the conservation and restoration of ancient woodland landscapes. These regional priority areas are shown in Figure 5.7.

5.133 Figure 5.7 shows the Needwood plateau falling within two strategic areas. The first of these is an ancient woodland landscape, defined as an area where ancient semi-natural woodland is greater than or equal to 3% of the land area and where the maintenance and expansion of ancient semi-natural woodland is the highest priority. The second of these is an ancient woodland restoration landscape, defined as an area where replanted ancient woodland is greater than or equal to 3% of the land area and where the restoration of these woods to native woodland is the highest priority.

5.134 Several areas of East Staffordshire also fall within the “Priority 1 woodland creation” area, which is defined as areas where the highest preference for woodland creation exists with the fewest sensitivities, while much of the remainder (outside the National Forest) falls within the “Priority 2 woodland creation” area. The only parts of the Borough where woodland creation is not a priority are around the Weaver Hills to the north of Rochester and in the Dove Valley around Marchington.

Historic Environment

Introduction

5.135 An understanding of the character of the historic environment and its influence on current landscape character. Land use is fundamental to the planning of green infrastructure. This understanding can then be used to inform the creation and restoration of green infrastructure which appropriately reflects local character and identity.

5.136 Physical historical features provide significant areas of multi-functional open space such as parkland, gardens and battlefields which are key elements of green infrastructure networks, often delivering significant recreational and tourist value. The provision of new green infrastructure in the context of development can be also valuable in protecting below ground archaeology and the settings of historic features from the pressures of development.

Key Data Sources

- English Heritage
- Natural England
- Staffordshire County Council

- Ordnance Survey

Designated Features

5.137 East Staffordshire contains the following historic designations, as indicated in Table 5.12 below and located geographically in Figure 5.8.

Table 5.12: Historical Designations Summary

Designation	Importance	Frequency
Scheduled Monuments	National	40
Registered Parks and Gardens	National	1
Listed Buildings	National	870
Conservation Areas	Local	25
Historic Environment Record Entries	Local	795 Listed buildings or structures 127 Find spots 1157 Monuments 23 Places or settlements (Total 2102 record entries)

Natural England: Joint Character Areas

5.138 East Staffordshire possesses a rich historic environment, with the area containing evidence of human activity since prehistoric times with the discovery of prehistoric human remains at Branston Water Park and with numerous Prehistoric burial features present in the Weaver Hills at the northern end of the Borough. The landscape character work undertaken by the former Countryside Commission (now part of Natural England) which resulted in the division of England into a number of Joint Character Areas (JCAs) included an assessment of historical and cultural influences.

5.139 The following paragraphs are a summary of the historical information provided in the descriptions of the main JCAs[6] into which East Staffordshire falls, providing a broad summary of the Borough's historical context.

Trent Valley Washlands

5.140 The area around Burton upon Trent was not extensively settled during Roman times; instead they built roads through the area to access their settlements to the north and west. Settlement in this area began in Anglo-Saxon times, which has influenced many place names and has continued since. The industrial revolution saw considerable expansion in the Burton area, including the construction of the railway and canals and Burton itself established itself as a major brewery centre, using the good quality water of the River Trent.

Needwood Claylands

5.141 The Needwood Forest area saw relatively little activity in the Prehistoric and Roman periods and even in the early 11th Century little settlement was recorded and that which was present was concentrated in the river valleys.

5.142 Following the Norman Conquest the Needwood Forest area was used as a hunting reserve, initially as Needwood Chase and passing to the Crown in 1399. During the late medieval

[6] While parts of the site also fall within the White Peak JCA, the area is very small and therefore it has not been included as the majority of the White Peak's historical activity occurred outside of East Staffordshire

period much of the land was cleared and settled and timber was sold by the Crown, although several large parks were retained such as Bagot's and Bromley. It is notable that despite this, around 4,000 hectares of land had not been enclosed by the start of the 19th Century and even today, the area retains a largely rural character.

Potteries and Churnet Valley

5.143 There is extensive evidence in this area of activity during the Bronze Age and Iron Age, evidenced by the large number of barrows on hilltops and the Iron Age hillfort within Alton Towers, and it is thought that the area was used for upland grazing.

5.144 After this period there is relatively little evidence of activity in this area until the 14 Century when the iron production industry in the Churnet Valley began to expand until the area became an important centre for metal production. The surrounding woodland was used to supply charcoal for the smelting process and resulted in the presence of many derelict industrial features surviving today within the valley.

Historic Landscape Character (HLC)

5.145 To enable a better understanding of the historic environmental character of Staffordshire, the County Council has undertaken a Historic Landscape Characterisation project. This project divided the county into a number of geographical units based upon common land use characteristics. For each unit, the current land use was identified, the "time depth" of that particular land use and any previous land uses that have been recorded.

5.146 This dataset provides a powerful tool in understanding the evolution of the Borough's landscape and will be an important consideration during the delivery of growth to ensure that new development and green infrastructure respects the historic character of development sites.

5.147 To enable the data to inform this study, a simple statistical analysis of the data occurring within East Staffordshire, Burton upon Trent and Uttoxeter was undertaken. This involved the calculation of the relative occurrence of each Historic Landscape Character Type 8 (HLCT) by area, and an assessment of the most common time depth of each HLCT.

5.148 It is noted that the data has the potential for much wider analysis, outside the scope of this study, to present a fuller interpretation of the historic development of the Borough and wider county.

5.149 With regard to East Staffordshire, the results of the statistical analysis of the data are presented at Appendix 4 and the distribution of HLCTs is shown in Figure 5.9.

5.150 This analysis shows that the landscape of the Borough is very much dominated by agricultural fields of varying origins, the most common being those arising from planned enclosure during the Industrial period, which represent 16% of the overall area of the Borough and occur mainly on the Needwood Plateau. Many of the other field types which dominate the Borough are of Post-Medieval origin (totalling around 40% of the Borough), including Miscellaneous Floodplain Fields, Piecemeal Enclosure, Other Small Rectilinear Fields and Small Irregular Fields.

5.151 Settlement is also apparent as a significant component of the Borough, representing over 6% of the total area. The majority of this settlement is Post-1880s, with a smaller component (around 25%) having been constructed prior to 1880, but still mainly during the Industrial period, reflecting the rapid expansion of this area since the Industrial Revolution.

5.152 While woodland as a broad land use occupies a significant proportion of the Borough's landscape (6%), it occurs in a wide variety of forms from ancient broadleaved woodland to conifer plantations and its origins vary from the Post-Medieval period to the current Post-War period.

Staffordshire Historic Environment Character Assessment (HECA) and Staffordshire Extensive Urban Surveys (EUS)

5.153 Staffordshire County Council also produce HECAs and EUSs. The purpose of the HECA is to survey and map the historic character of buffer zones around the settlements within East Staffordshire which will expect some degree of development and growth. The survey work which appraises the historic environment sensitivity of sites will then be used to inform the appraisal of development sites that may get allocated in the new Local Plan. The EUSs' aim is to understand the development current historic character of the medieval towns within East Staffordshire Borough including Uttoxeter, Abbots Bromley and Newborough.

Natural Processes and Environmental Systems

Introduction

5.154 Environmental systems and the natural processes that drive them are the critical functions that must be taken account of to ensure the "liveability" of new developments and their wider landscapes. Green infrastructure has the potential to assist new strategic development in harmonising with these processes and in doing so, using them to the benefit of both the built and natural environment.

Key Data Sources

- Department for Communities and Local Government
- HM Government
- Forestry Commission
- CIRIA
- Midlands Wood Fuel
- Aerial photography

Climate Change

5.155 Climate change is believed to be the greatest long-term challenge facing the world today. In the UK, the anticipated effects of climate change include more extreme weather events, increased flooding and permanent changes to the natural environment.

5.156 It is widely accepted that the emission of greenhouse gases, in particular carbon dioxide, from human activity is the principal contributor to climate change. In response to this the government has committed to a strategy to combat climate change through a range of measures from global to local scale to reduce net greenhouse gas emissions[7].

5.157 Green infrastructure has the potential to contribute to this strategy both directly through the sequestering of atmospheric carbon dioxide by growing trees and other vegetation and also indirectly through a number of means, including the following:

- Provision of attractive sustainable movement options such as walking and cycling that offer viable alternatives to the use of the private car for local movement.
- Provision of biomass as a substitute fuel for energy generation, replacing fossil fuels.
- Provision of biomass as a substitute fuel for domestic and industrial heat generation,

[7] Climate Change: The UK Programme 2006 (HM Government, 2006)

replacing fossil fuels.

- Provision of a context for the education of people in more sustainable living, e.g. through attractive, natural educational materials on key walking routes and in parks.

5.158 The use of biomass fuels such as short rotation coppice, Miscanthus grass, woodland management residues and sawmill residues is growing rapidly on a national scale, encouraged by national and regional policy.[8] This agenda is being led in the West Midlands by Bioenergy West Midlands[9], an organisation established to assist in the development of a dedicated regional bioenergy supply chain. Many facilities in the region have been installed by Midlands Wood Fuel, a company which installs and maintains wood fuel systems, retaining ownership and charging clients by the amount of heat used.

5.159 The use of biomass fuels can greatly assist the management of green infrastructure by providing a source of revenue for low grade material which can, for example, fund ongoing woodland management and improvement.

5.160 It is notable that there are currently no recorded biomass users or suppliers within East Staffordshire. This is despite the Borough containing a significant area of woodland, including the National Forest, which will provide large volumes of small broadleaved timber over the next 50 years from its ongoing management operations.

Flood Risk

5.161 Hydrology is an important natural process in the context of the East Staffordshire, having influenced historic patterns of settlement and land use that have led to its current character. It has also heavily influenced the topography of the northern end of the Borough, with the streams draining from the Needwood Plateau, Weaver Hills and hills to the west of Rochester creating dissected landscapes with steep, often wooded valleys. The River Trent's seasonal fluctuations have resulted in the retention of an undeveloped corridor of open space through Burton Upon Trent which delivers multiple benefits.

5.162 The risk of flooding is a critical consideration in the planning of strategic growth, especially given current pressures for land on which development can take place. In response to this, East Staffordshire Borough Council has commissioned a Strategic Flood Risk Assessment, as well as a detailed Water Cycle Study in parallel with this study. These documents and any subsequent updates to flood plain boundaries should be consulted for detailed information regarding the Borough's hydrological characteristics. Although in summary the main river catchments and 1:100 year flood zones associated with the rivers within the Borough are shown In Figure 5.12.

5.163 The retention of flood plains as unsuitable areas for development presents strong opportunities for green infrastructure, as the linear nature of these features can act as natural linkages between urban areas and the surrounding countryside. There is also an aspiration within East Staffordshire to increase flood storage capacity within the Borough through the re-creation of functional floodplains and setting back of flood defences. Habitats associated with flood plains are frequently of high value, for example wet woodland, fens and reedbeds, which are all Staffordshire Biodiversity Action Plan priority habitats.

[8] E.g. "A Woodfuel Strategy for England" (Forestry Commission, 2007) and "Wood Energy Strategy for the West Midlands" (Forestry Commission, undated)

[9] Component partners are Advantage West Midlands, Harper Adams University College, Defra, and the Government Office for the West Midlands

Drainage

5.164 All built-up areas require drainage to remove surface water and this has traditionally been undertaken using underground pipe systems designed to convey rainwater to attenuation features before discharging it to watercourses. Recently, these solutions have been criticised for not being sustainable, because of their potential to cause flooding through rapid conveyance of storm water to watercourses and to cause pollution through pollutants from urban areas being washed into rivers or groundwater[10].

5.165 The recommended solution to these issues is the use of Sustainable Urban Drainage Systems (SUDS). These systems use a variety of natural processes to reduce flood risk associated with development, including permeable surfaces and infiltration trenches to return rainfall directly to groundwater while filtering out pollutants and open swales and ponds to store stormwater, trap pollutants, reduce flow rates and encourage evapotranspiration.

5.166 These systems have high potential to contribute to site-level green infrastructure frameworks as they have the potential to provide a range of beneficial functions, as wildlife habitats, recreation resources and attractive features. In particular the linear swales can form valuable green corridors through urban areas, supporting priority habitats such as wet grassland and reedbeds.

5.167 A SUD system has been installed at Burton upon Trent and this is covered in the town's detailed description below.

Recreation and Tourism

Introduction

5.168 Green infrastructure resources provide a wide range of recreation and tourism functions, from neighbourhood scale sports pitches and play areas to features serving wider catchments such as primary municipal parks, country parks, watersports centres, racecourses and equestrian centres.

5.169 Green infrastructure offers opportunities for healthy living, which can contribute to government targets in the reduction of obesity and ill health and it is recognised that recreation in green spaces contributes to mental well-being. Recreation and tourism also has the potential to generate much-needed revenue income to maintain green infrastructure resources through, for example, entry fees, cycle hire, events or visitor centre and café profits.

Key Data Sources

- East Staffordshire Borough Council
- National Forest Company
- Ordnance Survey

Tourism

5.170 The tourist interest within East Staffordshire is well-connected with open space, with the following features drawing visitors into the area:

- Branston Water Park
- Uttoxeter Racecourse

[10] Sustainable Urban Drainage Systems: Design Manual for England and Wales (CIRIA, 2000)

- The National Forest Adventure Farm
- Sudbury Hall (just over the border within Derbyshire Dales District)
- Barton Turns Marina
- The Trent Washlands
- Croxden Abbey
- Hoar Cross Hall
- Jacksons Bank
- Tutbury Castle
- Byrkley Garden Centre
- Blithfield Reservoir
- Shobnall Leisure Complex
- St George's Park
- Bluebell Woods (Yoxall Lodge)

5.171 The locations of these features are shown in Figure 5.13.

5.172 It is also important within this theme to mention Alton Towers, outside but adjacent to the boundary of the Borough. This is not only one of the most popular theme parks in the UK but is also a Registered Park and Garden, sporting a significant area of formal and semi-formal gardens and woodland on steeply sloping topography.

5.173 Other key tourist resources in the vicinity of the Borough include the National Memorial Arboretum at Alrewas, Rosliston Forestry Centre and Catton Estate.

Recreation

National Forest Sites

5.174 The majority of woods established in partnership with the National Forest Company are accessible to the public and provide considerable resources for informal recreation which are well-served by facilities such as surfaced trails and interpretation panels.

5.175 The locations of these sites are shown in Figure 5.6.

Registered Common Land

5.176 There is relatively little Registered Common Land in East Staffordshire, the only areas being as follows:

- Land known as Belmont Green
- Hanbury Common
- Woodmill Common

National Forest Promoted Routes

5.177 The presence of the National Forest in the southern part of East Staffordshire has led to the creation of the following long-distance recreational walking routes, as shown on Figure 5.13.

- Needwood Circular
- Mythanholm (part of route within East Staffordshire)
- Monks and Moorings
- Branston to Jacksons Bank

5.178 Figure 5.13 also shows the route of a proposed 100 mile long distance National Forest trail

which the National Forest Company has included in its strategy and for which the Company is currently assessing need and exploring funding options.

East Staffordshire Borough Council Promoted Routes

5.179 East Staffordshire Borough Council has also published a series of attractive leaflets promoting a number of walking routes whose routes are shown in Figure 5.13.

5.180 A continuous footpath network is also present around Uttoxeter, which uses a number of existing public footpaths including the Staffordshire Way long distance route.

Access and Movement

Introduction

5.181 Green infrastructure networks provide a strong opportunity to provide connectivity for people as well as wildlife, in line with their core principle of multi-functionality. In doing this they contribute strongly to national and regional objectives for a modal shift in transport, from the current use of the private vehicle to more sustainable options such as walking and cycling for all or part of local journeys. This not only reduces traffic congestion and associated highways infrastructure demand, pollution and stress but also encourages healthy living.

5.182 Existing green access routes such as footpaths, cycleways, bridleways and canal towpaths have the potential to form key parts of local multi-functional green infrastructure networks. The verges and hedgerows often associated with these routes allow the movement of wildlife, and their attractive, green nature makes them attractive for informal recreation.

5.183 See Figure 5.14 for the alignments of all routes discussed below.

Public Rights of Way

5.184 East Staffordshire is well served by a network of existing Public Rights of Way, which cover a total distance of approximately 700km across the Borough.

5.185 The Staffordshire Way and the Way for the Millennium are two long distance routes that pass through the Borough, using the existing Rights of Way network.

5.186 The Staffordshire Way enters the Borough near Abbots Bromley and Blithfield Reservoir and heads northwards through Bagot's Park to Uttoxeter, where it exits the Borough. It spans a total of 22.34km within the Borough and forms an attractive connection between the corridors of the Rivers Trent and Dove via the Needwood plateau.

5.187 The Way for the Millennium enters the Borough near Yoxall, where it follows the corridor of the River Trent eastwards through Barton Turn Marina, Branston Water Park before terminating in Burton upon Trent where it meets National Cycle Network Route 54.

5.188 In addition to this the promoted routes discussed in the recreation and tourism section above provide a ready means for residents to access the local countryside, with interpretation leaflets provided to improve people's understanding and enjoyment of features along the routes.

Cycleways

5.189 The East Staffordshire Cycleway Network comprises 200km of cycleways which form effective sustainable movement routes within and between the Borough's principal settlements, including Burton upon Trent, Uttoxeter, Barton-under-Needwood, Tutbury and

Rochester.

5.190 In addition to this, Route 54 of the National Cycle Network passes through the southern part of the Borough, linking Burton upon Trent to Lichfield and Cannock to the west and Derby to the east, while the White Peak loop of this route connects Uttoxeter to the main route.

Data Limitations

5.191 The limitations encountered with the baseline data, by strategic theme, are as follows.

Landscape Character

5.192 Relatively few limitations were encountered with the existing landscape character baseline information.

Biodiversity & Geodiversity

5.193 The existing biodiversity and geodiversity data for the Borough was limited by two factors. The first is that the existing habitat inventory data is largely incomplete, with only a small area of the Borough having been subject to habitat assessment. The second limiting factor is that some of the data presented, in particular the Grassland Inventory data is over 10 years old and its current relevance could be questioned.

5.194 An additional but lesser limitation relates to the protected species records. This data is likely to be skewed by a large variation in the intensity of survey across the Borough (e.g. more species being recorded on publicly accessible land) and as such cannot be relied on to provide an accurate indicator of the geographic frequency of protected species.

Trees and Woodland

5.195 The only limitation associated with this theme was the general lack of co-ordinated information regarding the accessibility of woodland outside of the National Forest boundary.

Historic Environment

5.196 A limiting factor of this theme was a lack of comprehensive interpretation of the considerable dataset available under the Historic Landscape Characterisation project. The scope of this project restricted analysis of this data to an outline statistical analysis of relative abundance of historic landscape character types, although the potential exists for a much wider analysis and interpretation of this data to improve general understanding of its development and inform the development agenda.

5.197 An additional limiting factor is the availability of archaeological information, as many areas of the Borough have not been surveyed and therefore may contain undiscovered below ground archaeology. It is therefore recommended that all prospective development on areas with potential for archaeological interest be subject to archaeological investigation at or before the design stage of new developments, to ensure that features are properly taken into account.

Natural Processes and Environmental Systems

5.198 The only limitation experienced in relation to this theme was a lack of response from Bioenergy West Midlands to telephone and email contact.

Recreation and Tourism

5.199 Relatively few limitations were encountered with the existing recreation and tourism baseline information.

Access and Movement

5.200 Relatively few limitations were encountered with the existing access and movement baseline information.

BURTON UPON TRENT AND ITS IMMEDIATE ENVIRONS

Landscape and Townscape Character

Landscape Setting

5.201 Burton upon Trent is set within two Regional Character Areas (see above): the Trent Valley Washlands and the Needwood and South Derbyshire Claylands to the north west of the town.

5.202 Within these areas, Figure 5.2 shows that the Land Description Units that form the landscape setting of the town are attributed to the following Regional Character Areas and Landscape Character Types.

Trent Valley Washlands: Riparian Alluvial Lowlands

5.203 This is a riverine landscape, located on the eastern banks of the River Trent, including the Trent corridor that runs through Burton upon Trent and the confluence with the River Dove to the north-east of the town. It is characterised by its flat topography and visual links to surrounding areas. The land use is predominantly pastoral, with areas of arable on slightly higher ground.

5.204 Trees are a common feature within this landscape, comprising willow, alder and poplar lining rivers, streams and dykes. Hedgerow patterns are variable, from irregular to regular and are more intact in the pasture areas, while in arable areas they are being replaced with wire fences.

5.205 Landscape scale is also variable, mostly medium scale although the presence of trees reduces this in places and the practice of arable farming increases the scale in others.

5.206 An expanding incongruous feature within this landscape is the presence of sand and gravel quarries and their associated stock piles, although it is noted that the restoration of expired quarries can present strong green infrastructure creation opportunities which have already been realised in places, for example Branston Water Park.

Trent Valley Washlands: Terrace Alluvial Lowlands

5.207 This is an intensively farmed landscape of both arable and pastoral function, located to the south-west of Burton upon Trent on the western bank of the River Trent.

5.208 The landscape is generally large scale with regular fields bounded by declining hedges with scattered mature oak trees allowing long views. Nearer to settlements this landscape-scale reduces, as the intensive farming gives way to small, irregular fields of low intensity pasture and horse paddocks. Some areas are also given over to vegetable growing and in these locations the hedges have been removed, resulting in an increase in scale.

5.209 Several small woodland blocks are present within this landscape, particularly to the north of Barton under Needwood and these combine with hedgerow trees to provide a much greater sense of enclosure. Streams and ditches within this landscape are also commonly lined with willow and alder, which further increases the sense of enclosure.

Needwood Claylands: Settled Plateau Farmland Slopes

5.210 This landscape occurs to the north-west of Burton upon Trent. It is a landscape of irregular, hedged fields and numerous hedgerow trees on sloping topography, dissected by many small, steep sided, wooded stream valleys that drain the Needwood plateau.

5.211 This LDU, which covers a significant proportion of the Needwood Forest area, is described as being a peaceful, rural landscape with hedgerows and hedgerow trees controlling views in flatter areas. However, some agricultural intensification has taken place, which has created a more open, medium to large scale landscape with declining hedgerows being increasingly replaced by fences. This has occurred to some extent to the south of the B5017, where isolated individuals and clumps of trees can be seen in open arable fields. These variations in landscape scale are easily shown up by the rolling nature of the landform.

5.212 It is recorded that deterioration of the quality of this landscape is greatest at the urban fringe, although it is also noted that there are still sufficient hedgerow oaks, hedgerows and woodland to give most of the intensively farmed areas a strong rural character despite the pressures of development.

5.213 It is also recorded that this landscape is locally sensitive to the impacts of development and land use change.

Needwood Claylands: Settled Plateau Farmlands, Estates Sub-Type

5.214 This landscape occupies a strip of land to the west of Burton upon Trent, around Rough Hay and Sinai Park.

5.215 It is described as a wooded pastoral landscape of steeply sloping stream valleys running off the Needwood plateau, resulting in a peaceful, well cared for landscape whose dominant characteristics are woods interlocking with both the fields and landform.

5.216 The woodland within this landscape is generally of broadleaved character, located on valley sides and hill tops and this combines with oak hedge trees to give a wooded feel.

5.217 Manors with associated parkland have a strong local influence on this landscape and outside of this the field pattern is medium scale with largely intact hedgerows.

5.218 It is noted that this landscape is recorded as being very sensitive to the impacts of development and land use change.

Urban Townscape

5.219 There is no existing information available regarding Burton upon Trent's urban townscape character Although the Staffordshire Historic Landscape Character project identified the urban area as comprising mainly post-1880s settlements, this includes a strong band of industry running along the railway line and scattered throughout existing and redeveloped pre-1880s settlements. These originate from the Post-Medieval and Industrial periods.

Biodiversity and Geodiversity

Sites of Local Conservation Importance

5.219 Burton upon Trent contains the following Sites of Biodiversity Interest:

- Scalpcliffe Hill (also a Local Nature Reserve)
- Trent and Mersey Canal: Monk's Bridge

- Claymills Junction (near)
- Alder Moor and Lount Bank
- Shobnall Dingle
- Oaks Wood
- Trent Valley Washlands
- Callingwood Lane
- Pool Green
- Battlestead Hill and The Rough
- Rockets Oak
- Tatenhill Lane
- Branston Gravel Pits

5.220 Burton upon Trent also contains the following Biodiversity Alert Sites:

- Bean's Covert
- Bitham Clay Pit
- Princess Way
- Waterloo Clump
- Dove Cliff
- Burton Old Railway
- Brook Hollows Spinney
- Hanbury Road
- Greaves Lane
- B5017
- Shobnall Brook
- Dale Brook
- Branston Lock
- Branston Road
- Riverside Hotel Grounds, Branston
- The Rookery
- Callowbridge
- Trent and Mersey Canal

5.221 Scalpcliffe Hill Site of Biodiversity Interest has also been designated as a Local Nature Reserve.

Sites of Local Geological Importance

5.222 Burton upon Trent contains the following sites of local geological importance:

- Horninglow Clay Pit
- Winshill Quarry
- Ashby Road Excavation
- Bearwood Hill

5.223 The locations of these designated sites are shown in Figure 6.2.

Trees and Woodland

5.224 Burton upon Trent and its immediate environs contain a considerable area of urban woodland (621ha), much of which has been established within the last ten years under the National Forest Tender Scheme.

Existing Mature Urban Woodland

5.225 The town contains several mature woodland blocks, totalling 140ha, as shown in Figure 6.2. These include the ancient Scalpley Wood, which forms part of Scalpcliffe Hill Local Nature Reserve, Waterloo Clump which was planted to celebrate the victory at Waterloo and the woodland associated with Battlestead Hill and Sinai Park, which mark the boundary between the Trent Washlands and historic Needwood Forest.

National Forest

5.226 The recognition of Burton upon Trent as the capital of the National Forest has caused a significant change within the town, in particular through the creation of a large number of new urban woods totalling approximately 481ha in area.

5.227 While many of these new woods are small, occupying roadside strips and parts of school grounds, several large woods are also present. These include Bass Meadow, a 24ha area of wetland habitat on the Trent Washlands containing areas of new wet woodland, Tower Hill Woods, a 4ha woodland block within the Stapenhill part of the town and Bass Millennium Wood, 30ha of accessible woodland planted on the Needwood Scarp overlooking the town.

5.228 The full list of National Forest woodland within the town and its environs is listed in Appendix 3, although the most substantial sites within the town are as follows:

- Tower Wood
- Lawn's Farm
- Burton Mail Centenary Woodland
- Stoney's Wood
- Bass Meadow
- Easthill Wood
- Jeffs Wood
- Sinai Park Woodland
- Upper Mills Farm
- Consortium Wood
- Royle Farm
- Mimi's Wood
- Anslow Park Farm
- Pool Green Woodland

Historic Environment

Historic Designations

5.229 Burton upon Trent and its environs contains one Registered Park and Garden, four Conservation Areas and three Scheduled Monuments, which are as follows:

Registered Park and Garden

- Stapenhill Cemetery (Grade II)

Conservation Areas

- Burton upon Trent No.1 (King Edward Place)
- Burton upon Trent No. 2 (Town Centre)
- Burton upon Trent No. 3 (Town Centre)
- Trent and Mersey Canal

Scheduled Monuments

- Burton upon Trent Abbey
- Sinai Park Moated Site
- Enclosure 320m North of Tivey's House

5.230 Burton upon Trent also contains 193 Listed Buildings, of which only one, the Church of St Modwen, is Grade I Listed.

Historic Landscape Character

5.231 The Historic Landscape Character data for Burton upon Trent and its environs is presented in Appendix 4 and its geographic distribution is shown on Figure 5.10.

5.232 Analysis of the data shows that much of this area is dominated by a combination of agricultural fields and built development, with the most common Historic Landscape Character Types being Planned Enclosure (from the Industrial period) and Post-1880s Settlement, each occupying approximately 18% of the total area.

5.233 Agricultural fields of varying origin and character are other significant components within the landscape, including Piecemeal Enclosure (around 10%) and Other Small Rectilinear Fields (around 6%) which both date from the Post-Medieval period. There are also Large Irregular Fields and Other Large Rectilinear Fields (both around 5%), which originate from a variety of periods from the Post-Medieval onwards.

5.234 The industrial complexes located within Burton upon Trent are also a notable landscape component, occupying almost 8% of the total area and dating from the Industrial period onwards, but mostly since 1914.

Natural processes and Environmental Systems

Climate Change

5.235 As the capital of the National Forest, Burton upon Trent contains an increasing amount of urban woodland. As well as the minor carbon sequestration benefits provided by the growing trees, the new woodland also helps to reduce the amount of carbon dioxide produced by residents seeking recreation by offering attractive facilities within walking distance of residential areas, reducing the need for people to use private cars to access suitable areas for dog walking, children's play and picnicking.

5.236 With regard to the use of biomass fuels, produced by areas of green infrastructure to offset "fossil fuel" use, there are currently no recorded biomass boilers being used within Burton upon Trent. However the presence of the National Forest and the proximity to available supplies of woodfuel is likely to make this form of heat generation an attractive option in the future.

Flood Risk

5.237 The floodplain of the River Trent has shaped the settlement pattern of Burton upon Trent, with the undeveloped Trent Washlands forming an attractive area of wetland through the town.

5.238 The extent of this floodplain is shown in Figure 5.12.

Drainage

5.239 As described above in the corresponding section for East Staffordshire above, Sustainable Urban Drainage Systems provide an effective symbiosis between the needs of urban

drainage and green infrastructure.

5.240 Burton upon Trent contains an existing Sustainable Urban Drainage System within a new 150 home residential development at Beam Hill, comprising a swale and balancing pond that in addition to their drainage functions also provide landscape, biodiversity and recreational benefits through the greening of the new urban area.

Urban Trees

5.241 Burton upon Trent is generally regarded as a relatively densely-developed town, with relatively little green space remaining within it's built up areas. A study of aerial photographs of the town generally confirms a shortage of trees in the main town centre and there are relatively few roadside trees within the town, although many trees exist in residential gardens and the boundaries of the town's open spaces.

5.242 The National Forest Company and partner organisations are also causing an increase in the town's tree cover through the planting of areas of former grassland or agricultural land and the effects of this planting will become more noticeable as the trees mature, in particular in and adjacent to the Trent corridor where significant areas of new woodland have been planted.

5.243 Trees provide a variety of benefits to urban areas and this is now recognised at a national policy level[11]. (In terms of natural processes, these benefits include the moderation of the urban microclimate, through shading buildings in summer and reducing wind speed and allowing sunlight (deciduous trees only) to penetrate in winter, which can save as much as 10% of a building's annual energy consumption). Urban trees are also recognised for their value in intercepting rainfall to reduce urban run-off and can be valuable in filtering air pollution and screening unsightly urban components such as sewage treatment works and electricity sub-stations.

Recreation and Tourism

Tourism

5.244 Burton upon Trent contains the following "green" tourist attractions:

- Branston Water Park
- The Trent Washlands

Branston Water Park

5.245 This is a public park managed by East Staffordshire Borough Council comprising a large lake derived from former sand gravel extraction surrounded by woodland, wetland and wildflower meadows. It is managed for the combined objectives of wildlife conservation and public recreation and the Council has published a leaflet advertising its facilities.

5.246 Facilities provided within the site include a small educational visitor centre, picnic areas, viewpoint, play area, toilets, car park and a surfaced circular route around the perimeter of the lake. The site is host to fishing and model boat clubs, bird watchers and there is also a children's educational Wildlife Watch Group run by Staffordshire Wildlife Trust.

5.247 The site is also of archaeological interest, with several finds being uncovered during the original mineral extraction including a mammoth tooth and the remains of a young woman estimated to date back to 8,000 BC.

[11] "A Strategy for England's Trees, Woods and Forests" (DEFRA, 2007), pp 16-18

Trent Washlands

5.248 The Trent Washlands, located in the centre of Burton upon Trent, is an attractive natural destination comprising woodlands, meadows and wildfowl scrapes. It also contains areas of more formal landscaped gardens with surfaced paths and play areas, including Stapenhill Gardens with its attractive array of bedding plants.

5.249 The Washlands has been improved recently by the addition of Upper Mills Community Park, which is an area of former farmland that is now managed for wildlife conservation, including new wetland scrapes designed to attract native and migrant birds. A network of paths is provided within the Community Park with wildlife viewing areas to enable visitors to fully enjoy the site. The Washlands itself is connected to several paths, such as the Riverside Path, which allow access to other nearby parks and woodland areas, including the new Tower Woods urban woodland established as part of the National Forest.

Recreation

East Staffordshire Borough Council Recreational Routes

5.250 Burton upon Trent is the starting point for two of the recreational routes published by East Staffordshire Borough Council.

5.251 These are "Battlestead and Back", which starts at Branston Marina and loops northwards to Tatenhill and Battlestead Hill, and "Woodlands and Washlands", which follows a circular route in the vicinity of Scalpcliffe Hill, taking in the River Trent, Stapenhill Gardens, Scalpcliffe Hill Local Nature Reserve and two new urban woods: Burton Mail Centenary Woodland and Tower Woods.

National Forest Recreational Routes

5.252 Burton upon Trent is crossed by two recreational routes that have been established by the National Forest Company and one aspirational route, as shown in Figure 5.13.

5.253 The first of these is "Monks and Moorings", which is a relatively short (13km) circular route running along the north-western edge of the town, taking in Branston Water Park, Battlestead Hill and the Trent and Mersey Canal. The second is "Branston to Jackson's Bank, which is a longer route (33km) passing through land at the south-western end of the town, taking in Branston Water Park.

5.254 The National Forest Company's aspirational "100 mile route" (see above) also passes through the southern and eastern parts of the town, with 36km of the overall route falling within the Borough.

Shobnall Leisure Centre

5.255 Shobnall Leisure Centre is a major outdoor sports and recreation facility located on the north-western side of the town.

5.256 It offers facilities for a range of both relaxing and energetic activities, including:

- Tennis courts
- Athletics track
- All weather pitch
- Football pitches
- Bowling green
- Golfing areas
- Children's paddling pool
- Children's play area

- Space for picnics and walks

Accessible Open Space

5.257 Burton upon Trent contains approximately 317ha of accessible open space managed by East Staffordshire Borough Council, which takes a variety of forms, including community parks, National Forest sites, nature reserves, linear parks, recreation grounds and play areas.

Private Sports Facilities

5.258 Burton upon Trent contains a wide range of private sports grounds which have the potential to contribute to its green infrastructure value, including golf courses, sports pitches, tennis courts and cricket grounds.

Access and Movement

5.259 Burton upon Trent is generally well served by the East Staffordshire Cycle Network, which provides sustainable access to most parts of the town and in particular connects the outlying residential areas with the town centre and main employment areas.

5.260 National Cycle Network 54 also runs through the town, connecting it westwards to Lichfield and eastwards to Derby.

5.261 While there are no existing long distance footpaths running through Burton upon Trent, it is well connected to surrounding settlements and countryside by a footpath and bridleway network, as shown in Figures 5.14 and 6.2.

Data Limitations

Landscape Character

5.262 The main limitation associated with this theme is the lack of townscape character information, to provide an understanding of the varying character of the town and its associated greenspace.

Biodiversity and Geodiversity

5.263 Relatively few limitations were encountered with the existing biodiversity and geodiversity baseline information.

Trees and Woodland

5.264 Relatively few limitations were encountered with the existing tree and woodland baseline information.

Historic Environment

5.265 Relatively few limitations were encountered with the existing historic baseline information.

Natural Processes and Environmental Systems

5.266 Relatively few limitations were encountered with the existing natural processes and environmental systems baseline information.

Recreation and Tourism

5.267 Relatively few limitations were encountered with the existing recreation and tourism baseline information.

Access and Movement

5.268 Relatively few limitations were encountered with the existing access and movement baseline information.

UTTOXETER AND ITS IMMEDIATE ENVIRONS

Landscape and Townscape Character

Landscape Setting

5.269 Uttoxeter is set within three Regional Character Areas (see above): the Needwood Claylands to the west and south of the town, the Trent Valley Washlands to the east and the Potteries and Churnet Valley to the north.

5.270 Within these areas, Figure 5.2 shows that the Land Description Units that form the landscape setting of the town are attributed to the following Regional Character Areas and Landscape Character Types.

Needwood Claylands: Settled Plateau Farmland Slopes

5.271 This landscape occurs to the south-west of Uttoxeter, with the railway line to the south-east and the A522 to the north-west forming its approximate boundaries. It is a landscape of irregular, hedged fields and numerous hedgerow trees on sloping topography, dissected by many small, steep sided, wooded stream valleys that drain the Needwood plateau.

5.272 This LDU, which covers a significant proportion of the Needwood Forest area, is described as being a peaceful, rural landscape with hedgerows and hedgerow trees controlling views in flatter areas. Some agricultural intensification has taken place in this landscape, although this does not appear to have been undertaken to a great degree around Uttoxeter where the majority of agricultural land is pastoral, with an organic field pattern and hedged boundaries.

5.273 It is recorded that deterioration of the quality of this landscape is greatest at the urban fringe, although it is also noted that there are still sufficient hedgerow oaks, hedgerows and woodland to give most of the intensively farmed areas a strong rural character despite the pressures of development.

5.274 It is also recorded that this landscape is locally sensitive to the impacts of development and land use change.

Trent Valley Washlands: Riparian Alluvial Lowlands

5.275 This is a riverine landscape, located on the western terrace of the River Dove to the east of the town. It is characterised by its flat topography and visual links to surrounding areas. The land use is predominantly pastoral, with areas of arable on slightly higher ground.

5.276 Trees are a common feature within this landscape, comprising willow, alder and poplar lining rivers, streams and dykes. Hedgerow patterns are variable, from irregular to regular and are more intact in the pasture areas, while in arable areas they are being replaced with wire fences.

5.277 Landscape scale is also variable, mostly medium scale although the presence of trees reduces this in places and the practice of arable farming increases the scale in others.

5.278 An expanding incongruous feature within this landscape is the presence of sand and gravel quarries and their associated stock piles, although there does not appear to be any current mineral extraction activity in the immediate vicinity of Uttoxeter.

Potteries and Churnet Valley: Dissected Sandstone Uplands

5.279 This transitional landscape occurs to the north of Uttoxeter. It is a landscape of small to medium scale, low intensity pasture farming and its landform is undulating, dissected by small scale valley features.

5.280 Hedgerows and their associated trees provide the visual enclosure within this landscape,

although the undulating topography provides distant views. Hedgerow condition is variable and a small number of field boundaries comprise stone walls, indicative of the landscape's transitional status between the lowlands and uplands. Tree species are oak and ash, with sycamore increasing on higher ground.

5.281 It is notable that the A50 dual carriageway forms a strong barrier between Uttoxeter and this landscape, and that the landscape has been recorded as being locally very sensitive to the impacts of development and land use change.

Urban Townscape

5.282 There is no existing information available regarding Uttoxeter's urban townscape character, although the Staffordshire Historic Landscape Character project identified the urban area as comprising a core of pre-1880s settlement, formal parks and industrial complexes with post-1880s settlement radiating to the north and south.

Biodiversity and Geodiversity

Sites of Local Conservation Importance

5.283 Uttoxeter and its immediate environs contain the following Sites of Biological Importance:

- Creighton (north-west of)
- Crakemarsh Pool
- Lower Eastfield and Alder Carr
- Gendall's Coppice
- Oak Tree Farm Fields
- Woodford Rough

5.283 Uttoxeter and its immediate environs also contains the following Biodiversity Alert Sites:

- Wellbank Plantation
- Bakers Pit Plantation

5.284 The locations of these designated sites are shown in Figures 5.4 and 6.3.

Trees and Woodlands

Existing Mature Woodland

5.285 The urban boundary of Uttoxeter contains very little woodland, the only area of note being Mallard Close Woodland at the southern side of the town.

5.286 The immediate environs of the town contain several woodland blocks, however, all of which hold local biodiversity designations. These comprise the following:

- Lower Eastfield and Alder Carr SBI
- Wellbank Plantation BAS
- Bakers Pit Plantation BAS
- Gendall's Coppice SBI
- Woodford Rough SBI

5.287 Also of interest is a small (4.5ha) unnamed strip of ancient semi-natural woodland located to the east of the River Dove, to the north-east of the town.

Urban Trees

5.288 Uttoxeter contains relatively few urban trees, particularly in the town centre and newer residential developments.

5.289 The land to the immediate south of the town appears well treed, however, with good representation of hedge trees complemented by the landscaping associated with Uttoxeter Golf Course.

Historic Environment

Designated Features

5.290 Uttoxeter and its environs contain no Scheduled Monuments or Registered Parks and Gardens, but one Conservation Area in its centre.

5.291 Uttoxeter also contains 81 Listed Buildings, all of which are Grade II or II*.

Historic Landscape Character

5.292 The Historic Landscape Character data for Uttoxeter and its environs is presented in Appendix 4 and its geographic distribution is shown on Figure 5.11.

5.293 The analysis of the data shows that the landscape of Uttoxeter is heavily dominated by agriculture, the majority of which dates from the Post-Medieval period.

5.294 Fields in total account for over 80% of the total area and the most common Historic Landscape Character Type is Other Small Rectilinear Fields, which cover over 19% of the area and occur to the north, west and south of the town. Other prominent types include Miscellaneous Floodplain Fields, Piecemeal Enclosure, Planned Enclosure, Reorganised Piecemeal Enclosure and Small Irregular Fields.

5.295 Settlement is a relatively minor component of this area, occupying around 10% in total, the majority of which dates to Post-1914. Industry is very minor component, covering around 2% of the total area and mainly dating from the period after 1914.

Natural processes and Environmental Systems

Climate Change

5.296 Uttoxeter contains very little urban woodland, the only significant area of mature woodland being Mallard Close Woodland. The town also contains relatively few urban trees therefore it is unlikely that much of the carbon dioxide produced by the town will be locally absorbed by growing trees.

5.297 With regard to the use of biomass fuels produced by areas of green infrastructure to offset “fossil fuel” use, there are currently no recorded biomass boilers being used within Uttoxeter. However, the nearby Bagot Forest, Needwood Forest and National Forest areas provide available supplies of woodfuel. This form of heat generation may provide an attractive option in the future.

Flood Risk

5.298 The presence of the Rivers Tean and Dove and the Picknall Brook and their associated flood plains have had a historic shaping effect on the town, limiting its growth to the north, east and south respectively. However, the town has now crossed the Picknall Brook with residential growth to the south.

5.299 The extent of the floodplains of these watercourses is shown in Figure 5.12.

Drainage

5.300 There are currently no Sustainable Drainage Systems installed in Uttoxeter.

Urban Trees

5.301 Uttoxeter contains a relatively low level of mature urban trees, especially within the town

centre and newer residential areas, although many of its parks and open spaces contain remnant hedges with associated hedge trees.

5.302 Trees provide a variety of benefits to urban areas and this is now recognised at a national policy level[12]. In terms of natural processes, these benefits include the moderation of the urban microclimate, through shading buildings in summer and reducing wind speed and allowing sunlight (deciduous trees only) to penetrate in winter, which can save as much as 10% of a building's annual energy consumption. Urban trees are also recognised for their value in intercepting rainfall to reduce urban run-off and can be valuable in filtering air pollution and screening unsightly urban components such as sewage treatment works and electricity sub-stations.

Recreation and Tourism

Tourism

5.303 The main tourist attraction associated with Uttoxeter is the racecourse, situated on the floodplain of the River Dove to the south east of the town, which is a popular venue on the national racing circuit.

Recreation

5.304 The circular footpath route that has been established around Uttoxeter by East Staffordshire Borough Council (see Figures 5.14 and 6.3) provides an attractive means for residents to engage in informal recreation and access the surrounding countryside via other connecting routes, including the Staffordshire Way long distance route.

Accessible Open Space

5.305 Uttoxeter contains 19 areas of accessible open space, which comprise woodland, community parks, recreation grounds, sports fields and play areas. The largest of these is Oldfield Park, which covers 43 hectares.

Private Sports Facilities

5.306 Uttoxeter contains a range of private sports facilities, in particular the racecourse, golf course and Oldfield Sports Ground.

Access and Movement

5.307 Uttoxeter is well served by the East Staffordshire Cycle Network, which offers sustainable and convenient access to most parts of the town through a series of arterial routes.

5.308 The White Peak spur of National Cycle Network Route 54 also runs through the town, connecting it to settlements to the east, including Derby.

5.309 The Staffordshire Way long distance footpath runs through Uttoxeter and provides opportunities for access to the surrounding countryside to the north and south, including access to the valleys of the Rivers Dove and Churnet to the north and to Bagot Forest and Park and Blithfield Reservoir to the south.

5.310 In addition to this, Uttoxeter is served by a network of public footpaths providing access to the surrounding countryside in most directions, although it is noted that there is a distinct lack of bridleways in and around the town.

Data Limitations

[12] A Strategy for England's Trees, Woods and Forests" (DEFRA, 2007), pp16-18

Landscape Character

5.311 The main limitation associated with this theme is the lack of townscape character information, to provide an understanding of the varying character of the town and its associated greenspace.

5.312 An additional limitation when considering the landscape setting of the town is the lack of individual characterisation information of the two Land Description Units attributed to the Settled Plateau Farmland Slopes Landscape Character Type to the west of the town (see Figure 5.2).

Biodiversity and Geodiversity

5.313 Relatively few limitations were encountered with the existing biodiversity and geodiversity baseline information.

Trees and Woodland

5.314 Relatively few limitations were encountered with the existing tree and woodland baseline information.

Historic Environment

5.315 Relatively few limitations were encountered with the existing historic baseline information. However the archaeological features may not be apparent from the surface, particularly prehistoric remains. As such consideration must be given to unidentified remains and existing site which have no formal protection designations.

Natural Processes and Environmental Systems

5.316 Relatively few limitations were encountered with the existing natural processes and environmental systems baseline information.

Recreation and Tourism

5.317 Relatively few limitations were encountered with the existing recreation and tourism baseline information.

Access and Movement

5.318 Relatively few limitations were encountered with the existing access and movement baseline information.

Recommendations for Further Study

5.319 This section is a summary, by strategic theme, of the existing information limitations identified within the earlier sections of this chapter, together with recommendations for further study to address these needs. It also includes a summary of anticipated information requirements going forwards to enable the impacts of strategic growth on the Borough's green infrastructure to be fully understood.

Landscape Character

5.320 The review of this theme identified an existing need for individual character information of the Land Description Units within the Staffordshire Landscape Character Assessment, in particular on the urban fringe of Uttoxeter. This would enable a clear definition to be made between areas of subtle character variation within the larger areas of common Landscape Character Type, to inform the selection of growth allocations and to fully illustrate the character with which developers within these locations should comply.

5.321 The review of this theme within Burton upon Trent and Uttoxeter also identified the need for detailed townscape assessment. This is based on the requirement for information to ensure that new development on brownfield sites within the towns is congruent with the character of the relevant parts of the towns, in layout, architecture and landscaping.

5.322 The following recommendations are therefore made for further study:

- *Detailed landscape character assessment of Land Description Units providing detailed description to enable new development and associated landscaping schemes to be properly planned and assessed.*
- *Detailed townscape character assessment of Burton upon Trent and Uttoxeter to provide a means by which to assess brownfield development proposals.*

Biodiversity and Geodiversity

5.323 The review of this theme at the Borough scale identified a significant shortfall in the level of habitat mapping data within the Borough, with only a small proportion of Biodiversity Action Plan habitats having been surveyed and mapped to date. A need therefore exists to complete this work in order to gain a full understanding of the presence and condition of habitats, in particular Biodiversity Action Plan habitats within the Borough, to better inform the selection of strategic development locations and assessment of development proposals.

5.324 To avoid an excessive requirement on resources in terms of labour and finance, it is recommended that this be achieved through a broad habitat survey of the entire Borough, possibly using aerial photography, as well as a more detailed Phase 1 habitat survey of the urban fringes of Burton upon Trent and Uttoxeter, where strategic growth is most likely to take place.

5.325 The following recommendations are therefore made for further study:

- *Broad habitat type assessment of East Staffordshire Borough, using aerial photography with additional field survey where necessary.*
- *Phase 1 habitat survey of the urban fringes of Burton upon Trent and Uttoxeter.*

Trees and Woodland

5.326 The review of this theme at the Borough scale identified that while a significant amount of woodland data exists in the National Forest, less data exists regarding the remainder of the woodland in the Borough, particularly in relation to the availability of woodland access. A need therefore exists to identify those woods in which public access is available and to map this, along with an indication of usage, to inform the calculation of existing and future requirements for woodland access.

5.327 The following recommendation is therefore made for further study:

- *Assessment of the availability of woodland access in those areas of the Borough which fall outside of the National Forest, including the level of provision, facilities available and broad patterns of use from stakeholder liaison.*

Historic Environment

5.328 The review of this theme at the Borough scale identified the need for interpretation of the Borough's significant body of historic landscape character data, to enable a full understanding of its overall character and evolution to be gained. This understanding would aid in the interaction of development proposals with the historic environment, enabling them to better respond to local historic character.

5.329 There is an unrepresented distribution of Neolithic and Early Bronze Age sites, which can be attributed to the variation of excavation activities through mining and construction. These

archaeological sites account for a limited percentage of records, primarily through poor recognition by non-specialists and lack of excavation work. The potential for unrecorded sites and features of historic interest must be recognised. Many identified historic features do not have any formal designation or protection such as crop marks, ancient ditches and many prehistoric locations. Consideration needs to be given to existing non-designation sites and likely un-identified features which lie within any development proposal.

5.330 The use of LiDAR has provided excellent landform information, particularly through its application by the Environment Agency. The system uses has included studies have been used to map the location and distribution of water meadows and ridge and furrow features. This information system is becoming more widely used in identifying invisible features at a local scale.

5.331 The following recommendation is therefore made for further study:

- *Detailed analysis and interpretation of the Historic Landscape Characterisation data for East Staffordshire.*
- *A site by site evaluation for archaeological remains*

Recreation and Tourism

5.332 The information regarding the availability of recreational space and tourist features at all levels was comprehensive, therefore no additional requirement for information was identified.

Access and Movement

5.333 The Staffordshire Rights of Way Improvement Plan17 identifies a need within the county for additional public bridleways to allow equestrian and cycle access to the countryside and this chapter confirms this to be the case in East Staffordshire.

5.334 It is important that the creation of new bridleways or upgrading of existing footpaths be undertaken in a coherent manner, to ensure that the resulting network is functional and does not simply contain “dead ends” which terminate in a highway or public footpath. A need is therefore identified for information to fully understand the existing Rights of Way network and to identify suitable routes, connected to settlements, which allow proper recreational use of the countryside and sustainable movement between places. This information will provide a framework to create the desired network in partnership with local landowners and stakeholders such as local equestrian and cycling groups.

5.335 The following recommendation is made for further study:

Assessment of existing bridleway provision and identification of desired routes to create both bridleway linkages between population centres and attractive circular routes for recreational access to the countryside.

Baseline Interpretation and Analysis

Chapter Overview

6.1 This chapter will analyse the information collected in the previous chapter in order to establish the existing green infrastructure network for the Borough.

6.2 It will undertake a subjective assessment of the identified green infrastructure assets within East Staffordshire, at individual town and wider Borough scales, to identify which assets qualify as green infrastructure features for inclusion in the network. Each asset has been assigned a score based upon a number of criteria specific to nodes and corridors and this score has been used to assess whether the features qualify as major or minor nodes and linkages.

Physical Green Infrastructure Summary

6.3 The entire physical green infrastructure provision within the Borough and towns has been summarised on three maps as indicated in Table 6.1 below.

Table 6.1: Green Infrastructure Summary Maps

Geographical Area	Baseline Mapped Outputs
East Staffordshire District	Figure 6.1: Summary of Green Infrastructure Resources
Burton-Upon-Trent	Figure 6.2: Burton upon Trent Existing Green
Uttoxeter	Figure 6.3: Uttoxeter Existing Green Infrastructure

Green Infrastructure Analysis

6.4 Green infrastructure networks comprise two components: nodes and corridors. Nodes are features (or clusters of features) of value that may be important habitat complexes, characteristic landscape features, public parks or often a combination of these and other uses. Corridors are the linkages that connect the nodes into coherent, landscape scale frameworks that deliver significantly greater value than the nodes in isolation. They are the means for wildlife to move between nodes providing different habitat functions whilst enabling people to move between population centres and nodes. Examples include watercourses and bridleways.

6.5 At the scale of East Staffordshire Borough, the following categories of green infrastructure assets have been assessed as candidate green infrastructure features:

- Sites of Special Scientific Interest
- RIGS sites
- Ancient woodland complexes[13]
- BAP habitat complexes[14]
- Forestry Commission woodland[15]

[13] Ancient woodland sites are not of sufficient value to consider individually but when they occur in landscape scale complexes they are able to deliver a significant range of values as connected habitat units and characterising landscape features

[14] As identified by visual interpretation of Figure 5.5

[15] As the government agency for forestry and woodland, the Forestry Commission is committed to maximising the delivery of public benefit through woodland and wherever feasible, its sites are open to the public

- Woodland Trust woodland[16]
- Staffordshire Wildlife Trust reserves
- Registered Common Land
- Tourist features
- Long distance footpaths
- National Cycle Network
- Rivers and major water bodies
- Parkland
- National Forest woodland over 10ha in area

6.6 Within Burton upon Trent and Uttoxeter, the following categories of green infrastructure assets have been assessed as candidate green infrastructure features:

- Municipal parks, recreation grounds and play areas
- Urban woodland
- School playing fields
- Private sports pitches
- Allotments
- Designated biodiversity sites
  - Sites of Special Scientific Interest
  - Local Nature Reserves
  - Sites of Biodiversity Importance
  - Biodiversity Alert Sites
- Scheduled Monuments
- Watercourses
- Open water
- Sustainable Urban Drainage Systems
- Promoted public access routes
- Bridleways
- Cycleways
- Railway corridors

6.7 A small number of the identified green infrastructure assets fall within more than one of these categories, for example an area of ancient woodland forming part of a complex may also be a Site of Special Scientific Interest owned by the Forestry Commission. Where this is the case the asset has been included under all of these headings for consistency.

6.8 For every asset, its multi-functionality and accessibility have been assessed. For candidate nodes, the additional criterion of inherent value has been assessed, whereas for candidate corridors the amount of connectivity they deliver has been assessed.

6.9 The assessment has been undertaken by allocating each asset a relative score of 1 (lowest) to 3 (highest) for each criterion and then these scores have been totalled to give a relative measure of each asset's green infrastructure value.

6.10 The results of this assessment are shown in Appendix 3. It is important to recognise that while many features have not scored highly enough to be considered significant green infrastructure resources in the scope of this study, they will nonetheless be delivering a level of green infrastructure value at site level and many have the potential to be developed into

[16] The Woodland Trust is a private charity devoted to the protection, conservation and public enjoyment of ancient woodland and it allows permissive public access in almost all of its sites

more significant resources through investment and management. For the Borough's neighbourhood parks, this is covered in greater detail in Chapter 9.

6.11 The minor nodes and corridors often represent features which have high potential to deliver greater value through further investment and provision. In many cases, this could be through increases in their accessibility to all users, facilities provision or habitat value, all of which could be provided by funds raised from adjacent development. Where minor features fall within development areas, their status could also be increased through expansion and buffering as part of the wider development open space framework.

6.12 In summary, the identified nodes and corridors for Burton upon Trent, Uttoxeter and East Staffordshire are as follows:

East Staffordshire Borough

Major Nodes

- Blithfield Reservoir
- Branston Water Park
- Potter's Meadow
- Dunstall Estate
- Barton Marina
- Pool Green/East Hill/Lawns Farm/Sinai Park
- Bass Meadow

Major Corridors

- River Trent
- Trent & Mersey Canal

Minor Nodes

- Stanton Pastures and Cuckoocliff Valley
- Goat Lodge
- Forest Banks
- Braken Hurst
- Old River Dove, Marston on Dove
- Needwood Forest
- Bagot Forest
- Churnet Valley
- Weaver Hills Grassland
- Bagot Forest Wet Woodland
- Needwood Escarpment Wet Woodland
- River Dove Floodplain Grazing Marsh
- River Trent Floodplain Grazing Marsh
- Kingston Wood
- Bagots Wood
- Bromley Park
- Blithfield Hall
- Birchwood & Roosthill
- Battlestead Wood

Minor Corridors

- Staffordshire Way
- Way for the Millennium

- National Cycle Route 54
- River Churnet
- River Blithe
- River Dove

Burton upon Trent

Major Nodes
- Branston Water Park (incorporating Branston Gravel Pits SBI)

Major Corridors
- Trent & Mersey Canal
- River Trent

Minor Nodes
- Stapenhill Cemetery
- Scalpcliffe Hill Local Nature Reserve
- Oakwood Pasture
- Land known as Belmont Green
- Hanbury Common
- Woodmill Common
- Uttoxeter Racecourse
- The National Forest Maize Maze
- Barton Turns Marina
- The Trent Washlands
- Jacksons Bank
- Yoxall Meadow Woods
- St George's Wood/Normans Wood
- Eland Wood
- White Wood
- Land near Brankley Farm
- Barton Park
- Barton Quarry
- Anslow Park Farm
- Burton Floodplain Woodland/Upper Mills Farm
- Heath Road Community Park
- Anglesey Community Park
- Princess Way Open Space (A&B)
- Land off Lynwood Road
- Beans Covert
- Bitham Claypits
- The Brickyards
- Edgehill Community Park
- The Toadhole
- The Washlands
- Redhill/Redhill Woodlands
- The Washlands – Stapenhill Hollows
- Newton Road Park
- Hillfield Lane Recreation Ground
- Craythorne Woods

- Brook Hollows Spinney
- Shobnall Fields Leisure Complex
- Percy's Grove
- Oak Wood
- Claymills Pool
- Stretton Woodlands
- Burton Mail Centenary Woodland
- Battlestead Wood
- Grazing Land off Watson Street
- Upper Mills Farm
- Tower Woods
- Scalpley Wood
- Eton Forest Gateway
- Branston Housing
- Stretton Canalside
- Newton Road Park
- Dalebrook
- Lawn's Farm
- Burton Floodplain Woodland
- Shobnall Playing Fields
- Badger Wood
- Battlestead Hill
- Stoney's Wood
- Forest Dell, Grafton Road, Brizlincote
- Valley
- Bass Meadow
- Easthill Wood
- Pool Green & Easthill (Phase 2)
- ESBC River Trent
- Tatenhill Housing
- Bretby Crematorium
- Jeffs Wood
- Sinai Park Woodland
- Manor Farm
- Consortium Wood
- Royle Farm
- Newbold Quarry
- Newhall Derelict Railway Line
- Mimi's Wood
- Anslow Park Farm
- Bretby Landfill Site
- Land by Jeffs Wood
- Claymills Junction
- Brook Hollows Spinney
- Greaves Lane
- Branston Lock
- Burton upon Trent Abbey

Minor Corridors

- The Jinny Trail

- Station Walk
- Horninglow Linear Park
- Weston Park Avenue (linear park extension)
- Battlestead and Back
- Branston to Jacksons Bank
- National Cycle Route 54

Uttoxeter

Major Nodes

6.13 There are no major nodes within Uttoxeter and its environs.

Major Corridors

6.14 There are no major corridors within Uttoxeter and its environs.

Minor Nodes

- Mallard Close Woodland
- Strip of Ancient Semi-Natural Woodland East of River Dove
- Lower Eastfield and Alder Carr
- Wellbank Plantation
- Bakers Pit Plantation
- Gendall's Coppice
- Woodford Rough
- The Racecourse Ground

Minor Corridors

- Staffordshire Way
- Circular Footpath
- National Cycle Route 54: White Peak Loop

6.15 The locations of all of the above nodes and corridors are shown on Figures 6.4 to 6.6, which represent the existing green infrastructure network of East Staffordshire as indicated in Table 6.2 below.

Table 6.2: Existing Green Infrastructure Network Maps

Geographical Area	Baseline Mapped Outputs
East Staffordshire District	Figure 6.4: East Staffordshire Existing Green Infrastructure Network
Burton-Upon-Trent	Figure 6.5: Burton upon Trent Existing Green Infrastructure Network
Uttoxeter	Figure 6.6: Uttoxeter Existing Green Infrastructure Network

Existing GI Initiatives

Chapter Overview

7.1 Within East Staffordshire, a range of environmental groups are currently running a wide variety of projects and initiatives aimed at protecting and enhancing the environmental quality of the Borough and securing associated social and economic gains.

7.2 These initiatives are a critical consideration in the assessment and future planning of green infrastructure in East Staffordshire and therefore it is essential that they are fully incorporated into this study. They are key sources of information regarding the existing and aspirational character of the Borough's environment and can function as established delivery mechanisms for the creation, enhancement and ongoing management of green infrastructure.

7.3 This chapter reviews these initiatives, identifying their lead and support partners and their scope in relation to this study, summarising their objectives and analysing their potential contribution to green infrastructure within East Staffordshire.

Existing Initiatives

7.4 The existing and aspirational initiatives that relate to green infrastructure in East Staffordshire are summarised in the sections below. These include:

- National Forest
- Central Rivers Initiative
- Weaver Hills Project
- Landscapes for Living
- On Trent Project
- Forestry Exemplar Project

Applicable Scope

- East Staffordshire (part)
- Burton upon Trent

Lead Organisations

- The National Forest Company
- DEFRA (Sponsors of the National Forest Company)
- Forestry Commission

Brief Description

7.5 The Forest Strategy aims to create The National Forest which covers approximately 200 square miles of England. Parts of Staffordshire, Derbyshire and Leicestershire are included in the Forest area (see Figure 5.6).

7.6 The overall objective of the National Forest is to increase the woodland cover in its area from 6% at the Forest's inception in 1994 to a final target of 33% to deliver social, economic and environmental gain in an area whose landscape has been much degraded in the past through coal mining and other industrial activity.

7.7 The National Forest Company is a not-for-profit company set up by government to deliver the objectives of the National Forest. It has achieved this to date through effective partnership working with a wide range of organisations and providing an efficient

governance structure to ensure successful delivery. The National Forest Company will be a key stakeholder in the delivery of green infrastructure within East Staffordshire and will enable new resources to benefit from association with the highly-regarded National Forest brand and the wider promotion of National Forest sites.

7.8 The principal delivery mechanism for the Forest has been the National Forest Tender Scheme, a highly successful and innovative scheme in which private landowners bid to secure funding for woodland creation. To date the Tender Scheme has run for eleven years and has secured the creation of around 3,000ha of new woodland, bringing the overall woodland cover within the Forest to 17% in 2007.

Objectives

- Create a coherent and identifiable new entity known as The National Forest.
- Transform the area through a purposeful conversion of land use on a significant scale and at an exceptional rate.
- Be a recognisable forest – by expanding wooded cover from 6% to about one-third of the area.
- Enrich a diversity of landscapes and wildlife habitats.
- Be enjoyable, welcoming and accessible for all.
- Involve communities in the Forest's creation.
- Stimulate and add value to social and economic development.
- Be a working forest – contributing to national timber supplies and biofuels/biomass.
- Be sustainable – environmentally, economically and socially.
- Be geographically diverse and sensitive to landscape, natural and cultural history.
- Help to integrate urban and rural environments.

Interaction with Green Infrastructure

- National Forest sites provide existing GI assets, particularly urban woodland within Burton upon Trent.
- The National Forest financial mechanisms provide major funding to assist the public, private and voluntary sectors in the creation of new green infrastructure.
- National Forest project will fundamentally alter the landscape character of the Needwood Claylands and Trent Washlands as new woodland is created and trees mature.
- National Forest sites are potential future biodiversity reserves and can buffer existing habitats against future pressure, e.g. climate change.
- Open areas within National Forest sites can protect valuable archaeology and wood names are often associated with local heritage, e.g. Burton Mail Centenary Woodland.
- New planting within the Needwood Forest area will help to restore this formerly heavily wooded landscape.
- As the trees in National Forest woods mature, they will provide products such as firewood, biomass fuel and timber, which can stimulate rural economies and return profits to sustainable woodland management.
- The growing tree stock within the National Forest will sequester a large amount of carbon dioxide, helping to reduce the rate of climate change.
- The increasingly abundant supply of small timber is likely to encourage local wood fuel projects.
- The new urban woodland will provide multiple benefits to Burton upon Trent, including shading, rainwater interception, greening of the townscape, pollution filtering and providing attractive green space that is accessible by foot or bicycle.

- National Forest urban woods, particularly those within school grounds, provide education opportunities for local children and contact with nature.
- Larger National Forest sites provide opportunities for exercise, through walking and taking part in management activities.
- The long distance walking routes created by the National Forest Company provide an attractive means for the population of Burton upon Trent to access their local countryside.
- The creation of new green infrastructure within the Borough arising from its projected strategic growth will present strong opportunities for the establishment of new woodland towards the National Forest Company's woodland cover targets.

Central Rivers Initiative

Applicable Scope

- East Staffordshire (part)
- Burton upon Trent

Lead Organisations

- Aggregate Industries UK Ltd
- East Staffordshire Borough Council
- Entec
- Hanson Aggregates
- Lafarge Aggregates Ltd
- Lichfield District Council
- Natural England
- Staffordshire County Council
- The Environment Agency
- The National Forest Company
- The National Memorial Arboretum

Support Partners

- Canal and River Trust (formerly British Waterways)
- Sport England
- Staffordshire Wildlife Trust
- DEFRA
- The Royal Society for the Protection of Birds (RSPB)

Brief Description

7.9 The Strategy covers 6,000 hectares of land lying between Burton upon Trent and Tamworth and focuses mostly on the corridors of the Rivers Tame and Trent. The Strategy identifies a 'core' area around the National Arboretum which it considers to be the main tourist destination. Besides the 'core' area, the Trent Washlands and Branston Water Park at Burton upon Trent are highlighted as potential 'nodes' capable of supporting a large number of visitors. Currently these areas contain areas of open space and woodlands but could be enhanced in the future. The river corridor, which represents the 'spine' of the project area, is to be restored.

Objectives

- Regenerate the river corridor and improve its quality, in accordance with the

Staffordshire Landscape guidelines and the National Forest Strategy.

- Make the National Memorial Arboretum an important local, regional and national tourist attraction.
- Provide opportunities for diversification of farm incomes.
- Consider the opportunities for providing facilities for water based sports and active recreation in response to demand for these activities.
- Increase the level of informal recreational use.
- Increase the level of habitat provision (e.g. wetlands, reedbeds, and appropriate woodlands) and specifically to meet the habitats and species action plan targets as included in the Staffordshire Biodiversity Action Plan and National Forest BAP.
- Fully utilise the natural resources of the project area to the benefit of the local community.
- Prevent sterilisation of available mineral resources.
- Identify opportunities to create additional employment and to complement existing or future economic initiatives developed by the County and District Councils.

Interaction with Green Infrastructure

- The regeneration of the River Trent corridor will have a positive effect on the green infrastructure of the Borough, through the improvement of this major green infrastructure corridor.
- The Initiative's objective to improve the attractiveness of the area to tourists will assist the ongoing management of green infrastructure through the generation of revenue funds.
- The Initiative's objective to increase habitat provision will directly benefit the biodiversity aspects of green infrastructure and the identification of specific green infrastructure needs within this study will inform the delivery of this objective.
- The creation of new green infrastructure arising from the strategic growth of East Staffordshire will present opportunities for the Initiative to realise its objective of increasing informal recreation within its target area.

Weaver Hills Project

Applicable Scope

- East Staffordshire (part)

Lead Organisations

- DEFRA
- Natural England
- Staffordshire County Council
- Staffordshire Wildlife Trust
- Wolverhampton University

Support Partners

- East Staffordshire Borough Council
- FWAG

Brief Description

7.10 Project which covers approximately 5000 hectares of land bordered by the River Dove to the East, River Churnet in the West and South, and the Peak Park boundary to the North. The key aim of the project is to re-establish species-rich grassland in the project area by working with landowners.

Objectives

- Maintain habitats across and rebuild sustainable biodiversity networks.
- Maintain sustainable and extensive traditional farming systems.
- Maintain the distinct natural and social landscape of the Weaver Hills.
- Raise awareness, understanding and appreciation of the natural and cultural heritage of the Weaver Hills.

Interaction with Green Infrastructure

- The habitat creation and improvement and re-connection of biodiversity networks within the Weaver Hills is likely to significantly improve the green infrastructure value of the Weaver Hills.
- The project provides an existing delivery mechanism for biodiversity improvement that may be extended to other areas of East Staffordshire to capture the benefits of strategic growth.
- The re-creation of biodiversity networks may also present an opportunity to introduce recreational movement networks within the Hills, increasing the Borough's recreational provision, especially for the population of Uttoxeter.

Landscapes for Living

Applicable Scope

- East Staffordshire
- Burton upon Trent
- Uttoxeter

Lead Organisations

- West Midlands Biodiversity Partnership
- Terra Consult
- Natural England

Support Partners

- West Midlands Wildlife Trusts

Brief Description

7.11 "Landscapes for Living" was commissioned by the West Midlands Biodiversity Partnership to develop a fifty year biodiversity and opportunity map for the West Midlands region. The consultancy firm Terra Consult were commissioned to develop the biodiversity vision and associated "opportunity map" in 2006. The resulting document Landscapes for Living: Technical Report´ describes the approach used to develop the vision and map with particular emphasis on the consultation used to inform and support the process.

7.12 The report divides the West Midlands into three zones based on the biodiversity value of individual Landscape Description Units[17]. Zone 1 covers the highest biodiversity value containing the greatest proportion of priority habitats and ecological networks. Zone 2 includes moderate biodiversity value containing significant quantities of priority habitats and Zone 3 includes low biodiversity value, possessing reduced and dispersed habitats with high

[17] Defined within the report as "distinct and relatively homogenous units of land, each defined by a series of definitive attributes, so called because they define the spatial extent of each unit." It should be noted that these units differ from the Land Description Units used within "Planning for Landscape Change" for the purpose of landscape character assessment.

levels of isolation within a matrix of other land uses. Strategic river corridors and their floodplains were considered separately, as connecting networks between rural and urban landscapes.

7.13 The biodiversity opportunity map places the majority of East Staffordshire Borough within Zone 3, with the Needwood plateau, Weaver Hills and land adjacent to the Rivers Dove and Trent floodplains falling within Zone 2. The proposed vision for Zone 2 areas is to restore extensive multi-functional areas of habitat, linking and buffering the areas of greatest value, while the vision for Zone 3 areas is for the ecological improvement and "greening" of highly modified landscapes, protecting remaining features of value and the identification of areas suitable for multi-functional habitat creation.

7.14 With regard to the strategic river corridors across the region, the report promotes the enhancement, re-connection and restoration of habitats to aid the delivery of green infrastructure. The report also covers the region's cities and towns, promoting the enhancement, creation and celebration of ecologically rich urban landscapes.

Objectives

7.15

- Set out a 50 Year vision for biodiversity for the West Midlands focusing on the development of a landscape scale approach to restoring and enhancing biodiversity.
- Produce an agreed biodiversity opportunity map for the West Midlands
- Identify and map linkages and overlaps with other sectors' initiatives which are likely to have an impact on the delivery of landscape-scale biodiversity across the West Midlands.
- Provide recommendations on methods and approaches for sub-regional local 'opportunity mapping'.
- Engage in consultation with a range of audiences to ensure that the vision and map are widely supported and bought into.

Interaction with Green Infrastructure

- The biodiversity opportunities map produced by the project has been used to inform this study.
- The more detailed sub-regional biodiversity opportunities information anticipated to arise from the second stage of the project will assist in the future identification of priorities for the improvement of the biodiversity aspects of green infrastructure.

On Trent Project

Applicable Scope

- East Staffordshire (part)
- Burton upon Trent

Lead Organisations

- Central Rivers Initiative
- Environment Agency
- Forestry Commission
- LaFarge Aggregates
- Nottinghamshire County Council
- The Wildlife Trusts

Support Partners

- Country Land and Business Association
- Countryside Agency
- Derbyshire County Council
- DEFRA
- English Heritage
- Natural England
- FWAG

Brief Description

7.16 Long-term initiative which focuses on the River Trent corridor and in particular the section between Stoke-on-Trent and the Humber Estuary. The initiative draws together a wide range of organisations from the public, private and voluntary sectors, all of which have strong interests in the river's future. The initiative seeks to reverse the continuing decline in biodiversity by securing a better balance between wildlife, agriculture and commercial development.

Objectives

- Creating a rich diversity of linked wetland habitats along the Trent from Stoke to the Humber Estuary.
- Conserving and enhancing the river valley's rich history, archaeology and culture.
- Encouraging environmentally sustainable recreation and tourism.
- Promoting the value of wetlands across the region.
- Encouraging the adoption of sustainable practices in agriculture, forestry, mineral extraction and building development.

Interaction with Green Infrastructure

- Contribution of the project's proposed creation, enhancement, promotion and connection of wetland habitats to the overall green infrastructure of East Staffordshire and in particular the improvement of the River Trent as a major green infrastructure corridor.
- Contribution of the project's historic objectives to green infrastructure, in particular the enhancement of archaeological sites and conservation of the historic riverine landscape.
- Contribution of the project's recreation and tourism objectives to green infrastructure networks through the creation or upgrading of sustainable movement routes.
- Potential for new green infrastructure created within the Trent corridor to support the project by demonstrating and promoting best practice.

Forestry Exemplar Project

Applicable Scope

- Burton upon Trent

Lead Organisations

- Department for Communities and Local Government (DCLG)
- Forestry Commission

Support Partner

- Natural England

Brief Description

7.17 Initiative which aims to illustrate the positive role trees, woodlands and forestry can play a part of an integrated green infrastructure plan in improving the 'quality' of an environment. The initiative focuses on three key case studies, Burton upon Trent, Thetford and PUSH (Partnership for Urban South Hampshire).

7.18 The initiative is split into two phases. Phase 1 has already been delivered and its findings are presented in Green Infrastructure and Growth: Forestry Exemplar Project, Phase 1: Status Report (May 2007). The initiative identified two key points in relation to Burton upon Trent. Firstly that the Urban Forest Strategy (1995) should be implemented to ensure that the town of Burton is to be linked to the wider countryside, and secondly that there is currently no local green infrastructure delivery vehicle that deals with Burton.

7.19 The second phase of the initiative outlines a list of ongoing tasks which the Forestry Commission and DCLG are required to complete. These tasks range from developing a partnership responsible for delivering green infrastructure across Burton to promoting the role of National Forest Company.

Objectives for Burton upon Trent

- Ensure that the National Forest Strategy and Urban Programme are built into Burton's green infrastructure strategy.
- Ensure that the National Forest Company, East Staffordshire Borough Council and other key stakeholders make a firm commitment to implement the delivery of green infrastructure.
- Ensure that the specialist skills that the National Forest Company possess in relation to implementing GI are exploited in full.
- Development of a partnership which includes East Staffordshire Borough Council, the National Forest Company, Forestry Commission, Natural England, Environment Agency and other interested parties which can work together to deliver green infrastructure.

Interaction with Green Infrastructure

- Ability of the Status Report to inform the future planning of Burton upon Trent's green infrastructure, in particular urban woodland.
- Ability of the Status report to inform the consideration of a suitable green infrastructure delivery vehicle for East Staffordshire.
- Promotion of green infrastructure as a concept and the role of trees and woodland in achieving its improvement.

Needs Assessment

Chapter Overview

8.1 This chapter identifies the physical needs of green infrastructure in East Staffordshire. Highlighting both existing shortfalls and future requirements generated by the strategic growth of the Borough. Measures will be suggested to remedy these needs.

8.2 The assessment of physical needs will be undertaken in two stages. The first stage will examine the existence of current deficits in the provision of green infrastructure within the main population centres and growth locations of Burton upon Trent and Uttoxeter. This will anticipate the future requirements of the Borough, following the step change in population.

8.3 The second stage will focus upon the Borough as a whole, using visual assessment to identify any significant gaps in the existing green infrastructure network, principally in terms of connectivity. Mapped solutions will then be suggested to address these needs.

8.4 The results of this assessment are presented within each section and illustrated geographically in Figures 8.1 to 8.4.

Assessment Limitations

8.5 The limitation of the methodology of Natural England's Access to Natural Greenspace Standard is that it calculates accessibility distances around areas of greenspace in a straight line and does not take account of potential barriers to access such as major roads and railway lines. It is noted, however, that East Staffordshire Borough Council is currently preparing a Geographical Information System (GIS) to address this constraint at an individual site level.

8.6 The limitation of the urban green infrastructure needs assessment under the National Playing Fields Association Six Acre Standard is it only provides a broad outline of the total level of provision in each ward. Given the general nature of the data used, it does not reflect spatial changes in provision. In reality, the level of provision is likely to vary heavily within wards and again the Geographical Information System, being prepared by East Staffordshire Borough Council, will reflect these variations and the adequacy of open space provision in much greater detail.

8.7 The limitation of the green infrastructure network needs assessment is that it is a subjective assessment and is therefore dependent on the skills and experience of the assessor, although environmental stakeholders have also been consulted to ensure the assessment's validity.

Urban Green Infrastructure Needs

8.8 The purpose of this assessment is to gain a broad understanding of the adequacy of the current provision of urban green space (both formal and natural) serving Burton upon Trent and Uttoxeter. The results are used to assess and derive recommendations for new development.

8.9 East Staffordshire planning policy does not currently provide quantitative standards for open space provision and instead considers applications on a site-by-site basis according to existing local provision. Two national standards have therefore been used for a comparison, in the form of Natural England's Access to Natural Greenspace Standard (ANGSt), which refers to natural open space such as woodland and Local Nature Reserves, and the

National Playing Fields Association's Six Acre Standard, which refers to formal open space and equipped play areas.

Access to Natural Greenspace Standard (ANGSt)

8.10 In 1996 English Nature (now part of Natural England) published "A Space for Nature". This document recognises that people, and in particular children, need readily-available and safe contact with natural space for their quality of life and physical and mental well-being. To this end, the document recommends that people living in towns and cities should have the following minimum provision of access to natural greenspace:

- An accessible natural greenspace of at least 2ha less than 300 metres (in a straight line) from home.
- Statutory Local Nature Reserves provided at a minimum level of one hectare per thousand population.
- At least one accessible 20 hectare site within 2 kilometres of home, one accessible 100 hectare site within 5 kilometres of home and one accessible 500 hectare site within 10 kilometres of home.

8.11 For the purposes of this study, the above standards will be subsequently referred to as the first, second and third standards.

8.12 Whilst specific standards are not contained in more recent national planning policy, the NPPF encourages the provision of open spaces and linkages between them.

Results: First Standard

8.13 The results of the test against the first standard are shown on Figures 8.1 and 8.2, for Burton upon Trent and Uttoxeter respectively. These were derived using Geographical Information Systems analysis to create 300m buffers around all areas of natural greenspace in excess of 2ha. The extent of the built urban area was then measured to derive an understanding of the relative proportions of the towns' areas which met and did not meet the standard. The resulting maps were also analysed visually to identify any patterns of provision and deficit.

8.14 With regard to Burton upon Trent, Figure 8.1 shows a moderate provision against the standard, with 58% of the built-up area displaying adequate provision.

8.15 The visual analysis of Figure 8.1 shows that the provision of accessible natural greenspace is heavily influenced by the corridors of the River Trent and Trent and Mersey Canal, whose zones of influence cover a considerable area of the town. The large area of deficit in the centre of the town mainly covers industrial areas to which the standard does not generally apply. It should be recognised however, that accessible natural greenspace within the vicinity of workplaces can contribute to employees' physical and mental well-being by providing quiet, attractive spaces to visit during breaks. It is also possible that some of these areas may be subject to redevelopment to residential uses as part of the delivery of growth.

8.16 The main residential areas identified as being in deficit are Horninglow to the north of the town and Winshill to the east, with smaller areas of deficit at Stapenhill, Branston and Stretton.

8.17 With regard to Uttoxeter, Figure 8.2 shows that a considerable deficit of accessible natural greenspace exists within the town, with only 23% of the built-up area displaying adequate provision.

8.18 The visual analysis of Figure 8.2 shows that there are two areas of accessible natural greenspace associated with the town, which are located on its periphery and therefore few homes are within the required 300m distance.

Results: Second Standard

8.19 With regard to Burton upon Trent, the town contains one Local Nature Reserve in the form of Scalpcliffe Hill, which covers an area of 7.92 hectares against a total town population of 48,400[18] people, from which a target figure of 48.4 hectares can be derived.

8.20 This means that there is a current deficit within the town of 40.48 hectares of Local Nature Reserve (LNR) to serve the current population.

8.21 Within Uttoxeter, there are currently no Local Nature Reserves within the town and its environs and therefore the current deficit against the standard for the current population of 12,023 people is 12 hectares.

Results: Third Standard

8.22 With regard to Burton upon Trent, Figure 8.1 shows that the town is well-served by sites in excess of 20 hectares and that the Washlands open space complex provides a 100-hectare site for the town to enjoy. No 500-hectare sites were identified within 10 kilometres of the town's population, although it is noted that the presence of the Peak District National Park to the north of the town and Cannock Chase to the west provide significant areas of accessible natural greenspace.

8.23 Within Uttoxeter, none of the requirements of this standard are met, although it is noted that the Peak District National Park, located approximately 15km to the north of the town, provides significant areas of accessible natural greenspace.

Recommendations

8.24 For Burton upon Trent, the following recommendations are made, based upon the above assessment:

- Creation of additional areas of accessible natural greenspace (minimum 2 hectares), focussing on the Horninglow and Winshill residential areas to ensure that all residents have sufficient access. This could be achieved by making existing natural areas formally accessible or increasing the "naturalness" of existing areas of formal open space (e.g. through woodland planting in partnership with the National Forest Company) where identified surplus exists.
- Designation of an additional 40.48 hectares of Local Nature Reserve within the town. This could be achieved through the designation of the Trent Washlands, which forms a significant area of natural space in the town.

8.25 For Uttoxeter, the following recommendations are made, based upon the above assessment:

- Creation of additional accessible natural greenspace (minimum 2 hectares) in several strategic locations across the town to address the significant existing shortfall. This could be achieved by improving the "naturalness" of existing spaces in the Town ward, where there is an existing surplus of formal open space (see Table 9.1 below) or

[18] Population figures obtained from East Staffordshire Borough Council website

creating additional natural spaces on the urban fringe where this is not possible. When creating spaces on the urban fringe, the effects of the town's major roads and railway line upon accessibility must be taken into account.

- Designation of an additional 12 hectares of Local Nature Reserve(s). This is likely to involve the creation of new habitats as Chapter 5 identified that Uttoxeter does not contain any existing resources of recognised biodiversity value.
- Creation of large sites within the vicinity of the town to meet the requirements of the third standard. This will require significant partnership, working with local landowners and environmental stakeholders.

Six Acre Standard

8.26 This standard recommends the following provision of recreational open space within new residential areas:

- Formal open space: 1.6ha per 1000 population
- Children's play areas: 0.8ha per 1000 population
- Total: 2.4ha per 1000 population

8.27 In the context of this standard, formal open space refers to the combination of outdoor sports fields and recreation space.

8.28 Data has been provided by East Staffordshire Borough Council regarding the total population in each ward. This has been used in conjunction with the area of accessible recreational open space (public parks and accessible National Forest woodland in the case of Burton upon Trent) to calculate the average provision of accessible green space in terms of hectares per 1000 population.

Results

8.29 The results, of the assessment of average open space provision within the urban wards of East Staffordshire, are shown in Table 9.1 below.

Table 9.1: East Staffordshire Urban Greenspace Provision

Town	Ward	Population[19]	Six Acre Standard Provision (hectares)	Actual Provision (hectares)	Variance (hectares)
Burton upon Trent	Anglesey	5835	14.00	51.84	37.84
	Branston	7040	16.90	157.26	140.36
	Brizlincote	5087	12.21	44.95	32.74
	Burton	2127	5.10	71.43	66.33
	Eton Park	5378	12.91	10.55	-2.36
	Horninglow	7828	18.79	11.39	-7.40
	Shobnall	6130	14.71	35.92	21.21
	Stapenhill	7900	18.96	7.91	-11.05
	Stretton	7763	18.63	24.08	5.45
	Tutbury and Outwoods	5260	12.62	25.26	12.64
	Winshill	8115	19.48	21.06	1.58
Uttoxeter	Heath	6049	14.52	5.8	-8.72
	Town	5974	14.34	51.54	37.20

[19] Source: 2001 Census

8.30 Table 9.1 shows that the provision of open space within East Staffordshire is largely sufficient, with only four wards showing a deficit against the standard. It is also notable, that all of these wards are directly adjacent to wards with a surplus greater than their deficit. Although accessibility will be a critical consideration, in the viability of the use, of surplus open space in adjacent wards.

8.31 The results of this assessment are also shown in Figure 8.3.

8.32 The unusually high provision of the Branston and Burton wards are on account of large National Forest sites on the urban fringe and the Trent Washlands respectively.

Recommendations

8.33 Based upon the results of this assessment it is recommended that any brownfield development within the Eton Park, Horninglow, Stapenhill and Heath wards include areas of new open space over and above the anticipated requirements of the development, to address internal deficits.

8.34 It is also recommended that any development on the urban fringes of Burton upon Trent and Uttoxeter, adjacent to the Horninglow and Heath wards, should include additional areas of open space on the boundary with these wards. This would provide additional space for their residents.

8.35 With regard to the provision of green space within future developments, this should satisfy the Six Acre Standard as a minimum, and would also provide significant areas of informal open space (approximately 20% of the total development area, reflecting current local policy in relation to woodland creation) to deliver other functions such as biodiversity and drainage. In the case of Burton upon Trent, the default land use for this informal open space should be woodland, unless there are over-riding reasons for other habitats such as wood pasture or species rich grassland.

Future Development

8.36 As identified above, existing open space deficits exist within Burton upon Trent and Uttoxeter, in particular with regard to accessible natural greenspace.

8.37 Significant investment will therefore be required to address these existing deficiencies before provision can be made for additional populations associated with an increased population and associated growth.

8.38 As outlined in Chapter 1, the aspiration within East Staffordshire is to deliver 11,648 new homes by 2031. Based upon an average household size of 2.4 people[20], this equates to an estimated population rise of 27,955 people.

8.39 Under Natural England's Access to Natural Greenspace Standard it will be very difficult to calculate the neighbourhood natural greenspace requirements based upon a maximum of 300m distance from home. Although the informal open space requirement of 20% of the total development area, as proposed by the National Forest Company in their development, should if suitably distributed, address this need. With regard to additional Local Nature Reserves, the Standard would require the designation of an additional 28 hectares in the vicinity of the new development.

8.40 Under the National Playing Fields Association Six Acre Standard, the creation of an estimated 44 hectares of formal open space and 22 hectares of children's play areas would be required to service the new development.

[20] Figure derived from East Staffordshire Borough Council website

8.41 While the above figures outline the minimum open space requirements to provide for the needs of the proposed additional population. It is recommended that developers be encouraged to deliver levels of open space, particularly accessible natural greenspace, over and above these requirements, providing additional facilities for the Borough's existing population.

8.42 It is also recommended that a greenspace strategy be adopted, as policy, by East Staffordshire Borough Council. This would be informed by this and other assessments, sets specific open space standards for developers when meeting housing associated with growth.

Green Infrastructure Network Needs

8.43 The visual assessment of the existing green infrastructure network for East Staffordshire (Figure 6.4) identified two areas of deficiency, both of which are related to a need for connectivity to address the current isolation of major and minor nodes.

8.44 The two identified needs are described in turn below and are indicated geographically on Figure 8.4.

Barton to Bagot Linkage

8.45 The visual assessment of Figure 6.4 revealed a roughly linear cluster of isolated minor green infrastructure nodes, ancient woodland and other woodland running between Barton-under-Needwood and Bagot Forest. This continued through Kingstone Wood to the River Blithe. This linear association includes the Dunstall Estate major green infrastructure node, which is currently isolated within the network.

8.46 To address this isolation, it is proposed that work be undertaken to establish a green infrastructure corridor in the approximate alignment shown in Figure 8.4. This corridor should comprise both habitat and public access linkage.

8.47 The habitat linkage component should be delivered to reverse the fragmentation of the various woods along this route. It could take the form of new woodland areas, linear tree features or hedgerows which could be established using targeted funding and positive engagement with landowners in a similar manner to the National Forest Company. Care must be taken, to respect the historic value of the Needwood Forest, as an exemplar of the parliamentary enclosure of woodland and wood pasture, and this is particularly applicable within the Settled Plateau Farmlands: Estates sub-type (see Figure 5.2) where woodland creation is of a much lower priority than surrounding areas. In particularly sensitive areas, species-rich hedgerow creation and improvement should be undertaken as opposed to woodland creation, which could change the character of open areas.

8.48 The public access linkage component should be delivered to allow this corridor to deliver multi-functional value and to allow further public access to the attractive Needwood and Bagot Forests, complementing the existing footpath network. In particular, it is recommended that bridleway access be provided along the route to address a recognised shortfall of rural equestrian and cycle access within the Borough (see Chapter 5).

8.49 Where possible, existing public footpaths should be upgraded, although it is likely that new routes would need to be designated for much of the route. The existing footpaths tend to run perpendicular to the route and there is currently no formal public access within Bagot's Wood, which forms the larger part of Bagot Forest. This requirement for additional routes is likely to pose a significant challenge to the delivery of this corridor and positive engagement with landowners will be vital, along with targeted funding to potentially secure land release.

Needwood Escarpment Linkage

8.50 The visual assessment in Figure 6.4 revealed a distinct linear ancient woodland feature running along the northern scarp of the Needwood Plateau which has the potential to form a strong corridor connecting the wooded landscape of Needwood with the wetland of the River Dove. The realisation of this potential was therefore interpreted as a green infrastructure need. The route of this proposed linkage is shown on Figure 8.4.

8.51 The linear ancient woodland on the northern boundary of the Needwood Forest is already of significant biodiversity interest, on account of its varied assemblage of remnant woodland types, reflective of the historic Needwood Forest. Further habitat value lies to the east of this woodland in the form of ancient woodland. Recent woodland and designated grassland is separated from the former woodland by the village of Hanbury and its adjacent agricultural land.

8.52 An element of both designated and non-designated public access is present within the central part of the Needwood Escarpment woodland complex. There are a variety of public access linkages to the east connecting this with the woodland/grassland complex to the east of Hanbury, including a promoted leisure walking route and a local cycleway. These routes provide a continuous linkage between the two habitat complexes and the River Dove corridor.

8.53 Given the existing value of this potential corridor there is relatively little work required to raise it to the standard of a corridor within the Borough's strategic green infrastructure network. The principal requirement is the improvement of public access, in particular the establishment of a continuous public Right of Way between the Staffordshire Way and the corridor of the River Dove. This should be achieved by positive engagement with landowners and supported with funding. Cycle access along this route should also be sought, although the steep topography of the Needwood Escarpment would need to be considered.

8.54 The area of agricultural land bordering Hanbury is a notable gap within the habitat linkage of this corridor, although this gap is relatively short, spanning approximately 1.5km. It is therefore recommended that landowners be engaged with targeted funding to create a series of ecological "stepping stones" such as mature, well-managed hedgerows and field corner spinnies to provide the necessary linkage.

Opportunities Assessment

Chapter Overview

9.1 The planning of green infrastructure should not be limited to satisfying existing deficits and those generated by future populations. It should be visionary, seeking opportunities to achieve significant net gains in the provision of multi-functional green resources and the connectivity of these resources to form coherent, functional landscapes.

9.2 This chapter builds upon the recommendations of the previous chapter, using the information presented in Chapters 5 and 6. Suggesting a suite of projects that, subject to adequate resourcing, would deliver significant benefits to the quality and liveability of East Staffordshire as a whole.

9.3 Those projects that have a geographical context are broadly illustrated in Figure 9.1. East Staffordshire Green Infrastructure Group. As the delivery of the grwoth progresses, it will be critically important to establish a regular, positive dialogue with developers to ensure the correct and adequate protection and creation of green infrastructure.

East Staffordshire Green Infrastructure Group

9.4 It is proposed that this dialogue be undertaken via an informal group of green infrastructure stakeholders, tasked with ensuring that green infrastructure is properly addressed. This would provide a single point of contact and source of advice for developers and would ensure that conflicting messages were not being received from different organisations.

9.5 Membership of the group should be open to all related organisations but it should be made clear that regular input is required and membership should be reviewed on a regular basis. Should this group prove initially successful then there is the opportunity to further formalise the group into a more pro-active and effective organisation.

9.6 A functioning example of such an organisation in the East Midlands is Northamptonshire Environmental Network, a group comprising government agencies, local authorities, the county council and a variety of environmental NGOs including the Woodland Trust and CPRE. The group is administered by the local Wildlife Trust and chaired by democratic rotation and its role is to oversee and promote the ongoing delivery of the Northamptonshire Biodiversity Action Plan.

9.7 The following organisations are suggested as initial candidate members:

- East Staffordshire Borough Council
- Staffordshire County Council
- National Forest Company
- Staffordshire Wildlife Trust
- Forestry Commission
- Natural England
- Environment Agency
- English Heritage
- Canal and river Trust
- Groundworks Trust
- Woodland Trust
- CPRE
- RSPB

- Ramblers Association
- Established community groups, e.g. “Friends of” groups
- East Staffordshire Multi-Functional Parks Project

East Staffordshire Multi-Functional Parks Project

9.9 The assessment of the urban parks of Burton upon Trent and Uttoxeter in Chapter 6 revealed that many of them are visually uninspiring and ecologically poor, consisting of close mown amenity grass. Chapter 8 also identified a deficit of accessible natural greenspace within both Burton upon Trent and Uttoxeter.

9.10 It is therefore proposed that a project be established to increase the multi-functionality of these areas by introducing additional features such as trees, ponds, rough grassland areas, interpretation boards and land art to provide a range of values over a variety of themes.

9.11 To add additional value to these improvements, the work in creating and maintaining these features could be undertaken by the local community led by a local Groundwork Trust, the British Trust for Conservation Volunteers or Staffordshire Wildlife Trust. In particular, this could key in with the range of existing projects and partnerships currently operating within Staffordshire and present opportunities for them to attract additional funding and capacity. This could bring a range of benefits including the following:

- **Community cohesion:** Work to improve local parks can bring elements of the community which are normally separate, e.g. teenagers and the elderly, together to achieve a common goal while improving communication, understanding and respect between them.
- **Natural play:** Studies have shown that a lack of contact with the natural environment can have an adverse effect on children’s aptitude and cognitive development, referred to as “nature deficit disorder”. By making parks more interesting with natural elements they present greater opportunities for social games such as hide-and-seek to take place.
- **Education of both children and adults:** With children this could be education regarding ecology and the natural environment, with a school bringing a class of pupils to the park each year to undertake a project in partnership with Staffordshire Wildlife Trust education staff. With adults this could be training in countryside management skills or horticulture, to encourage lifelong learning.
- **A greater sense of community ownership:** If communities have a “sense of stewardship” of their local parks then there is a higher likelihood that community policing will occur. This in conjunction with greater use of the parks, will reduce the likelihood of anti-social behaviour such as vandalism and littering, resulting in a reduction in annual maintenance costs.
- **Cost reduction:** The use of volunteers to undertake both capital and maintenance works can greatly reduce the financial outlay while delivering the above benefits, increasing the viability of these schemes.

9.12 The funds to undertake these improvements could either be raised internally by communities or from local businesses, or secured as part of Community Infrastructure Levy (CIL), a “roof tax” charge on new developments, especially nearby brownfield developments.

Needwood Forest Project

9.13 Chapter 5 revealed that the Needwood Plateau was covered with large areas of

oak-dominated woodland until its relatively recent clearance for land enclosure in the 19 Century.

9.14 This process led to the heavy fragmentation of the Plateau's ancient woodland and nowadays it exists in the form of scattered and isolated remnants, along with a number of more recently established woods, principally within the part of the plateau that falls within the National Forest.

9.15 Supplementary planting is helping to re-connect this former wooded landscape and to protect, link and buffer the fragile ancient woodland habitats. It is therefore proposed that a project be established to provide a similar woodland creation incentive to the National Forest over the remainder of the Needwood Forest area to secure this benefit.

9.16 The overall aspiration of the project would be to increase the woodland cover in the Forest area to 33%, in line with the adjacent National Forest. This would bring a wide diversity of benefits to the Borough, including the provision of an attractive recreation resource, significant biodiversity benefits and potential economic benefits such as tourism and the potential for marketing of rural woodland products using the adjacent National Forest. It is also noted that the Woodland Opportunity Mapping project, under the West Midlands Regional Forestry Framework, identified the parts of the Needwood Plateau outside the National Forest as Priority 1 and 2 woodland creation areas, an ancient woodland landscape and an ancient woodland restoration area (see Figure 5.7).

9.17 It is noted that some parts of the Needwood Forest are valued for their parliamentary enclosure landscape character and therefore consideration would need to be given to the location of significant areas of new woodland. Based upon the recommendations of the county's landscape character supplementary planning guidance, woodland creation should be targeted. This could be within the Surveyor-Enclosed Plateau Farmlands areas (Figure 5.2), here new woodland planting would be valued. More careful consideration should be given to new woodland creation within the Settled Plateau Farmlands areas where it should generally only be undertaken to enlarge existing woods and create small ecological "stepping stone" plantations.

9.18 The Forestry Commission is a likely lead partner in this project, although a Needwood Forest Trust could be established to secure its delivery. Forestry Commission regional funds could be used to support the woodland creation and public access elements of the project, supplemented by other sources such as the Heritage Lottery Fund to build upon and promote the Forest's heritage.

River Dove Access Project

9.19 The River Dove is an attractive watercourse, meandering its way through an open, agricultural landscape and forming the majority of the eastern boundary of the Borough. The river corridor currently delivers significant biodiversity value, supporting several areas of valuable wetland habitat including a Site of Special Scientific Interest.

9.20 Public access along the river corridor is limited. This constrains the river from delivering its full potential as a green infrastructure asset and denies many the enjoyment of access to this linear landscape.

9.21 A significant amount of the river corridor is currently accessible by foot along a variety of footpaths, but an opportunity has been identified to create a dedicated route that is directly associated with the river and which provides for a range of accessibility options.

9.22 It is therefore proposed that a project be established with the aim of creating and promoting this route. The route should be available for pedestrian, cyclist and equestrian use (where possible) and there should be sections which provide all ability access where feasible. Facilities could also be established along the route such as interpretation panels, education centres and cafés, in partnership with the relevant bodies. The project could also include the creation of additional wetland habitats to provide further visitor interest for ornithologists and local wildlife groups.

Green Tourism Projects

9.23 During the initial stakeholder workshop, the desire for East Staffordshire to have a “green” tourist feature was expressed.

9.24 The River Trent provides the greatest potential for the development of such a feature, being easily accessed by road and having been subject to historic (and ongoing) sand and gravel extraction. The potential therefore exists for a new watersports facility which could offer a range of activities such as water skiing, sailing and kayaking on an artificial slalom course. This would be designed to attract visitors from the surrounding counties with associated high quality accommodation and catering facilities.

9.25 An alternative option is to make use of the existing woodland within the Borough to create a new tourist facility in partnership with a local landowner. A very successful example of such a facility is the “Go Ape” tree top trail in Thetford Forest, where visitors traverse the canopy of mature conifer woodland attached to ropes with a variety of obstacles to cross.

9.26 Finally, the Needwood Forest area has the potential for the development of a range of country sport and leisure tourist pursuits such as horse riding, shooting and fishing.

A Green Infrastructure Vision for East Staffordshire

Chapter Overview

10.1 This chapter draws together the information and results of the previous chapters into a single vision for the maintenance and improvement of green infrastructure in East Staffordshire. This will inform the process of strategic growth within the Borough and achieve overall improvement in the quality and sustainability of the Borough's environment, outside of the growth context.

Green Infrastructure Vision for 2021

10.2 In 2021 green infrastructure will be as much of a part of the development process as any other form of infrastructure, such as highways and drainage. New residential, commercial and industrial developments will have been created with attractive networks of multi-functional green space which provide a variety of benefits and form a strong link between the main population centres and surrounding countryside.

10.3 Burton upon Trent will be an attractive, green town with large areas of developing urban woodland, easily recognisable as the capital of the National Forest. This reputation, along with the realisation of the benefits provided by the River Trent, will make it a very desirable place to live and work with large areas of well-managed accessible woodland within cycling distance of the town.

10.4 Uttoxeter will continue to develop as a significant population centre to the north of the Borough, celebrating its rural setting and improving sustainable linkages to the River Dove to the east and the Churnet Valley, Weaver Hills and Peak District to the north. Delivery of the growth will bring multiple benefits to the town, with the new residential and employment areas providing a significant, attractive open space network connecting with existing green assets.

10.5 The Borough as a whole will celebrate its natural environment, using the opportunities presented by development to invest significant resources in the consolidation and enhancement of its existing green infrastructure network. In particular, the character and connectivity of the Needwood Forest will be enhanced, reversing historic ancient woodland fragmentation. The river corridors forming the natural boundaries to the Borough will be improved, with habitat enhancement, creation and connection. The provision of extensive public access will enable these valuable landscapes to be enjoyed by all.

Core Themes

10.6 The green infrastructure vision for East Staffordshire is based upon three core themes, which are influenced by the Borough's natural environment and which reflect the aims and objectives of the relevant stakeholders. These themes are:

- **Woodland**
- **Wetland**
- **Connectivity**

10.7 Each of these themes will be explored in the sections below, drawing together their value and existing and future contribution to green infrastructure.

10.8 A summary of this vision is presented geographically in Figure 10.1.

Woodland Vision

10.9 East Staffordshire's woodland provides a continuous connection through time, from the first settlement of the area and exploitation of the resources of Needwood and Bagot Forests to the modern day National Forest with its ambitious woodland creation targets.

10.10 The principal woodland value of the Borough lies in its ancient woodland, providing this unbroken link with the past. At 45% of the total woodland area, ancient woodland represents a significant proportion of the Borough's mature woodland and this valuable and irreplaceable habitat should be afforded the greatest protection in the future. The historic fragmentation that the Borough's ancient woodland has experienced, particularly in the Needwood Forest, should be reversed with new areas of native woodland of local historic character established to re-connect and buffer ancient woods. Priority should also be given to the restoration of the significant areas of replanted ancient woodland within the Borough with appropriate native species, undertaking appropriate silvicultural management to ensure that timber production and the maintenance of the rural economy remains a viable objective.

10.11 Whilst the principal existing value of East Staffordshire lies with its ancient woodland resource, the future of the Borough's woodland lies firmly with the National Forest. The National Forest has provided a wide range of significant benefits to the Borough over the last ten years, principally the facilitation of the creation of almost 900 hectares of new woodland, much of which is accessible. These strong links with the Forest should be carried forward into the future and Burton upon Trent should embrace its status as the Capital of the National Forest, realising all opportunities presented for the further creation of urban woodland and ensuring that woodland creation goes hand in hand with development through local policy. Outside of Burton upon Trent, landowners should be encouraged to develop new woodland creation schemes to achieve the National Forest target of 33% woodland cover.

10.12 Access should be a key theme of woodland priorities going forward, enabling people of all abilities to experience the health and mental benefits that contact with woodland brings. Outside of the National Forest, positive engagement should be held with woodland owners to encourage the provision of woodland access, particularly where the woods are adjacent to the existing public Rights of Way network. Through this access, people should be encouraged to engage with their local woods, to foster understanding, familiarity and ownership through interpretation, events and a general sense of safety and welcome.

10.13 In summary, the principles underlying the woodland vision for East Staffordshire are as follows:

- The creation of significant areas of new woodland in the National Forest, to achieve an overall woodland cover of 33%
- The protection and conservation of ancient woodland. The restoration of replanted ancient woodland to native species
- The enhancement of the character of the Needwood Forest and reversal of historic woodland fragmentation
- The management of woodland for multiple objectives, including the support of the rural economy
- The promotion of accessibility in all woods across the Borough and the development of local communities' familiarity with and understanding of their local woods

Wetland Vision

10.14 The river corridors running through East Staffordshire have been important factors in its historic settlement and prosperity, in particular the River Trent. The wide washlands of these watercourses are still subject to seasonal flooding cycles and contain wetland habitats of considerable value which support a range of species. The mineral extraction activities that have occurred on the River Trent in recent years have augmented these habitats with sand and gravel quarries being restored to large areas of open water.

10.15 Blithfield Reservoir is of considerable importance to the Borough as it supports a nationally renowned community of wetland birds as well as valuable reedbeds and wet woodland on its periphery. This national value should be celebrated, with further investment in visitor facilities such as paths and bird watching hides to ensure that people of all abilities can appreciate this valuable resource.

10.16 The wetland habitats associated with all of the Borough's watercourses should be conserved and opportunities should be realised for the creation of additional habitats such as reedbeds, wet woodland and wet grassland to further enhance this value and provide additional opportunities for species movement and colonisation. The potential exists for these habitats to be further expanded and enhanced through the aspiration to create additional floodplain areas within the Borough.

10.17 It is important that visitors to these wetlands are able to fully appreciate their value and therefore a priority should be placed on the creation of visitor infrastructure. This may include all ability paths, benched, bird watching hides and interpretation materials. These sites often also present significant education opportunities and partnerships should be explored with local schools and youth groups to enable children and young people to gain an understanding and appreciation of their local natural environment at an early age. This especially applies to the Trent Washlands within Burton upon Trent, an important and easily under-appreciated resource on people's doorsteps.

10.18 The strategic growth of the Borough presents significant opportunities for the creation of additional wetland habitats, through the installation of Sustainable Urban Drainage Systems (SUDS). These opportunities should be realised through positive engagement with developers. The open swales and ponds associated with these systems can be readily managed for biodiversity objectives as well as urban drainage and again, interpretation and education will be important to engage local communities.

10.19 In summary, the principles underlying the wetland vision for East Staffordshire are as follows:

- The conservation of existing wetland habitats on all watercourses
- The creation of additional wetland habitats within flood plains
- The development of Blithfield Reservoir as a national wetland bird reserve with suitable visitor infrastructure
- The use of sensitive access infrastructure and interpretation within wetland reserves to engage the Borough's population with their local wetlands, in particular the Trent Washlands in Burton upon Trent
- The realisation of opportunities presented by Sustainable Urban Drainage Systems for additional wetland habitat creation and interpretation within new developments

Connectivity Vision

10.20 Green infrastructure networks are by their very nature connected. As with any other form of infrastructure, features in isolation deliver relatively little value compared to when they

are properly connected into functioning, coherent networks at the appropriate scale.

10.21 The watercourses within East Staffordshire provide significant green infrastructure corridors through the Borough, principally for the movement of wildlife but also people, where provision has been made. Aside from the River Trent, which benefits from the Way for the Millennium, the corridors of the other watercourses are relatively inaccessible and therefore significant potential exists for access connectivity.

10.22 As identified in the woodland vision above, woodland connectivity has been lost within the Needwood Forest as a result of historic woodland clearance. An opportunity exists to reverse this trend through the creation of new areas of accessible native woodland.

10.23 It is vitally important that all new greenspace created within and adjacent to urban areas as a result of growth is properly connected to form accessible greenspace networks. These linkages may take the form of access routes, drainage features or retained existing features such as mature hedgerows and tree belts. This new greenspace network should ensure its connectivity with the existing networks of footpaths, cycleways and other green corridors within the towns. The network should also provide effective linkages with the towns and surrounding countryside providing an attractive, perforated urban edge.

10.24 In summary, the principles underlying the connectivity vision for East Staffordshire are as follows:

- The reversal of the historic trend of habitat fragmentation, particularly ancient woodland
- The creation of new, connected urban greenspace networks to provide recreational and sustainable movement opportunities for new populations
- The retention of existing green infrastructure connections such as hedgerows and public Rights of Way within development Masterplans
- The use of new urban greenspace networks to improve the rural-urban interface of Burton upon Trent and Uttoxeter

The use of Sustainable Urban Drainage systems to contribute to the connectivity of urban greenspace networks

Green Infrastructure Standards for Sustainable Development

Chapter Overview

11.1 This chapter is prepared in response to the requirement of East Staffordshire Borough Council for a set of standards to guide developers in the protection, improvement and delivery of green infrastructure as part of the development planning and construction process.

11.2 It presents ten standards, three of which are general to green infrastructure as a whole and seven of which relate to the strategic themes used in this document. Each theme is accompanied by additional information which connects it to the context of East Staffordshire.

General Standards

A. Green spaces shall not be created or retained in isolation. They should be connected through linear green infrastructure into site-level networks and where possible should connect to and enhance the existing green infrastructure network of East Staffordshire.

Existing neighbourhood green spaces within the residential areas of Burton upon Trent and Uttoxeter are often isolated, having been created or retained within a matrix of built development. Exceptions to this trend are the linear parks which have been created within Burton upon Trent and which perform a valuable connecting function.

It is recommended that all new play areas, recreation grounds and other local green space areas be planned into new residential developments as connected networks, with green corridors linking parks to deliver connectivity for people and wildlife. If the green corridors incorporate retained mature hedgerows then these routes will be particularly valuable as movement routes for wildlife such as birds and bats.

B. New green spaces should be designed to serve more than one function to maximise public benefit.

Many of the existing urban parks within Burton upon Trent and Uttoxeter (and the rest of the UK) simply contain close mown amenity grass, which is both visually uninspiring and ecologically poor. New parks created as part of the strategic growth of the Borough should contain features such as trees, ponds or tall grass areas which add both visual and ecological interest, as well as their own identity. Water features such as ponds and swales in parks can also form part of Sustainable Urban Drainage Systems to increase the efficiency of land use, while forming attractive visual features and potentially attracting a range of wildlife.

C. Developers should agree robust delivery and funding mechanisms with East Staffordshire Borough Council prior to commencement of development to secure the ongoing management of green infrastructure.

It is vital to the process of green infrastructure planning to establish these mechanisms at the earliest possible stage once costs are understood, in particular to secure the ongoing generation of revenue funding. This matter is covered in greater detail in an East Staffordshire context in Chapter 13 below.

Thematic Standards

D. New green infrastructure should be in keeping with the existing landscape character of development sites, in terms of its habitat type and species selection.

The variable landscape character of East Staffordshire means that it is important that the green infrastructure associated with new development is in keeping with the surrounding landscape type. Where development is located near to the river valleys, opportunities should be realised for the creation of new wetland habitats such as wet woodland and reedbeds, while development to the north and west of Burton upon Trent should include more oak-dominated woodland to reflect the character of the adjacent Needwood Forest.

E. All development should identify key biodiversity habitats, features of geological interest and all other environmental assets at the masterplanning stage and where possible enhance these features through positive management, buffering, extension and linkage.

East Staffordshire contains a wide variety of habitats from the washlands of the River Trent to the remnant ancient woodland of Needwood and Bagot Forests and the mixed grassland of the Weaver Hills. It is therefore important that new development identifies and respects the existing habitats within a site. They form the core of new urban greenspace networks, with opportunities realised to reverse historic fragmentation, increase their area and improve their management. Opportunities are presented within the Borough for partnership working with a range of organisations to deliver habitat creation and management, including Staffordshire Wildlife Trust and the National Forest Company.

F. All development design should include street trees and urban woodland. Existing high quality woodland should be retained where possible within development designs to achieve an overall net gain in woodland area.

As the capital of the National Forest, there are significant opportunities to obtain support for the creation of woodland within and adjacent to Burton upon Trent and as such, woodland should form a major component of all landscaping schemes associated with large developments. Design is critical to the success of urban woodland and it should have an open, welcoming character rather than being an intimidating "wall of trees". Paths should be designed with wide edges and glades to reinforce user security and play opportunities. To deter anti-social use, neighbouring property should be designed to front onto the woods. Local communities, particularly young people, should be involved in the establishment and care of the woods to engender a sense of community ownership and stewardship. Design guidance should be produced to assist developers with this process, as well as other key green infrastructure design issues.

G. All development design should respect and respond positively to the historic environment and should use green space to protect and incorporate historic features. All new built development sites should be subject to prior archaeological investigation and recording to identify any features of interest which may require protection and also to improve our overall understanding of the historic environment.

East Staffordshire has a rich and varied history, from the abbey and brewery at Burton upon Trent to the Churnet Valley's industrial heritage and the historic use of the Needwood Plateau as a royal hunting forest. It is therefore important for development

to be informed by the particular history of the area in which it is to be sited and for any features of interest, for example attractive but derelict brick industrial buildings, to be retained and incorporated where possible.

H. All developments should be served by Sustainable Urban Drainage Systems (SUDS) where feasible. The component features of these systems should be designed and managed to deliver additional green infrastructure benefits, such as wildlife habitat improvement and provision, landscape enhancement and informal recreation.

Sustainable Urban Drainage Systems offers high potential for green infrastructure, in particular the linear swales which can connect areas of parkland and wildlife habitat. Burton upon Trent already possesses one new residential development served by a Sustainable Urban Drainage system and this should be replicated elsewhere, especially given Burton upon Trent's proximity to the River Trent and Uttoxeter's to the River Dove. However as with all green infrastructure, it is important to establish robust mechanisms for the ongoing management of these features especially given the valuable drainage function that they serve.

I. All developments should provide an adequate quantity of high quality and diverse recreational space to cater for the needs of new and existing residents and employees. These should be accessible by foot and bicycle and linked into the wider green infrastructure network.

Some wards within East Staffordshire (Eton Park, Horninglow, Stapenhill and Heath) contain levels of greenspace that are below the recommendations of the Six Acre Standard for their total populations. New development within or adjacent to these wards should include additional open space provision to address this deficit.

The assessment of 'Burton upon Trent and Uttoxeter against the Accessible Natural Greenspace Standard' also revealed significant deficits in the current provision of accessible greenspace and investment should be made to address this requirement.

All new developments should contain a provision of open space to meet the needs of their residents or users in line with the above standards and any subsequent local standards. Within the National Forest, this provision should consist mainly of woodland, established in line with the National Forest development planting guidelines, unless this conflicts with other over-riding factors, e.g. the extension of a depleted non-woodland habitat. Outside the National Forest, this provision should be tailored to the character of the surrounding landscape. Irrespective of use, informal open space should be sustainably managed in partnership with the relevant environmental stakeholders.

J. Linear green infrastructure should be used within developments to encourage a modal shift to more sustainable modes of transport and should connect to existing footpath an cycleway networks.

East Staffordshire contains a relatively well-developed cycleway network and it is important for new development to continue this network into new residential and employment areas to ensure that people are able to use sustainable travel options. Where possible, these routes should be away from roads, should be shared footways and cycleways and should be associated with green corridors which also allow the movement of wildlife and development of attractive habitats to enhance the visual experience for footpath and cycleway users.

Implementation Plan

Chapter Overview

12.1 Equally important to the proper planning of green infrastructure is its effective delivery, both in terms of its creation and ongoing management. This requires the formation of effective delivery mechanisms and the sourcing of both capital and revenue funding at the outset, to prevent resources going into decline in the future.

12.2 There are two principal aspects to the delivery of green infrastructure. This section considers each of these issues in turn;

- the mechanism by which delivery occurs; and
- the sourcing of sufficient capital and revenue funding to enable this delivery to occur.

Practical Implications of Green Infrastructure Delivery

12.3 Green infrastructure is delivered by a wide variety of individual bodies, including the following:

- Developers
- Local Authorities
- Government Agencies
- Non-Governmental Organisations
- Community Interest Companies
- Private sector companies
- Private landowners
- Local community groups

12.4 These organisations frequently enter into delivery partnerships, bringing their respective skills and resources together to form effective bodies for the creation and management of green infrastructure. A local example has been the National Forest Tender Scheme, where the National Forest Company, Forestry Commission and private landowners (principally farmers) worked in partnership to achieve significant woodland creation.

12.5 When forming delivery partnerships it is important to establish at the outset what the roles of each partner will be, in the initial delivery and ongoing management of the green infrastructure resources. These roles might include:

- Sourcing, holding and releasing funding
- Group leadership/chairing
- Land purchase, ownership and/or occupation
- External liaison and promotion
- Specification, budgeting and licensing
- Contract management and supervision
- Practical creation and management
- Monitoring and reporting

12.6 It is critically important to ensure that regular and effective communication is maintained between group members and that procedures are put into place to ensure that agreed actions are completed in a timely manner. It is also important to ensure that the necessary skills exist within any partnership to ensure full understanding of and engagement with the development agenda and the design considerations of green infrastructure.

12.7 Within East Staffordshire, the following are the principal organisations that have the potential to form part of the overall green infrastructure delivery mechanism.

12.8 **East Staffordshire Borough Council** is likely to be the principal body co-ordinating and regulating the delivery of green infrastructure. Where delivery partnerships are formed, it is recommended that the Council be involved in at least an advisory role, to ensure that green infrastructure is delivered in a planned and strategic manner to ensure the realisation of the vision for the Borough. The Council should also use its development control powers to ensure that green infrastructure is properly considered during the scoping, masterplanning and application phases of development and that sufficiently robust planning conditions and funding agreements are put in place and enforced.

12.9 To ensure that green infrastructure is properly addressed at Local Authority level, it is recommended that the council engage a dedicated Green Infrastructure Officer. This would ensure the delivery of the green infrastructure vision for the Borough through the co-ordination of developers, landowners, delivery vehicles, stakeholder organisations and sections within the Borough and county authorities.

12.10 The **National Forest Company** has already facilitated the delivery of a large area of woodland in the southern part of East Staffordshire, in particular in Burton upon Trent, and is skilled at partnership working to achieve its own objectives. The Company has been involved in the growth of the Borough for several years. The East Staffordshire Borough Local Plan 2006-2011 recommended that all developments over a certain size within the National Forest include at least 20% of the total development area as new woodland towards the objectives of the National Forest. It also recommends that new road schemes include associated tree planting to achieve a well-wooded setting.

12.11 The National Forest Company is therefore well placed to contribute to the delivery of the green infrastructure vision through the provision of capital funding for the continued creation of native woodland and other associated habitats. This should include the National Forest Company's urban programme and other schemes set up within Burton upon Trent with partner organisations, to achieve the vision of the town being the Capital of the National Forest.

12.12 The **Forestry Commission** has been active in East Staffordshire for decades, through its ownership and management of the majority of the woodland associated with Bagot Forest and its national grant schemes to assist landowners in the creation and ongoing management of woodland. It has also more recently been involved in the delivery of the National Forest, offering substantial grant sums to support the work of the National Forest Tender Scheme. Finally, it is responsible for the formulation of action plans to deliver the England Trees, Woodland and Forestry Strategy, which places strong links between trees and woodland and urban green infrastructure, and has lead the production of regional forestry and wood energy strategies.

12.13 The Forestry Commission therefore has significant potential to contribute to green infrastructure delivery partnerships as a source of capital (and to a certain extent, revenue) funding, woodland creation and management advice and also management as a potential adopting body for urban woodland.

12.14 Staffordshire Wildlife Trust has an interest in East Staffordshire green infrastructure through its ownership and management of Oakwood Pastures nature reserve, its involvement with the administration of county-level biodiversity designations and hosting

of the Staffordshire Ecological Record. One of its primary concerns is the large areas of wetland habitat within the Borough associated with the River Trent and other watercourses bordering the Borough They are also involved in several initiatives including the Central Rivers Initiative and Staffordshire Washlands Working Group. The Trust is also the principal body in the Borough associated with the conservation of grassland and is a major partner in the Weaver Hills Project.

12.15 The Trust has the potential to form a valuable part of green infrastructure delivery partnerships wherever biodiversity is a significant objective and can bring a range of benefits These benefits include; habitat expertise, the investment of endowments, strategic and practical habitat management (including the use of volunteers), land ownership and adoption, educational work and community involvement.

12.16 Developers will be a fundamental element of the delivery of green infrastructure going forwards and it is important that sufficient outreach be undertaken by green infrastructure stakeholders to ensure early, positive engagement.

12.17 It is therefore recommended that significant resources be devoted to the engagement with developers at the masterplanning stage of new developments, particularly those on the urban fringe. This is to ensure that opportunities are fully realised to achieve an overall net gain in green infrastructure value and that comprehensive plans are established at the outset for the ongoing management of green infrastructure within development sites.

12.18 Large private landowners, such as the Duchy of Lancaster not only own and manage a significant proportion of the Borough's existing green infrastructure, but also have the potential to contribute to the creation and management of additional green infrastructure in a variety of ways. This may include the supply of land for the creation of large areas of ecological mitigation (where land is not available on site), or the supply of labour, expertise and machinery for the creation and management of green infrastructure where landowners operate farming and other land management enterprises.

12.19 As discussed in Chapter 9, it is also recommended that a Green Infrastructure Group be established within the Borough, comprising a wide range of stakeholders. This group would act as a single point of contact for all of the above organisations to obtain green infrastructure information and could also act as a forum where members share experience and co-ordinate the overall delivery of the green infrastructure vision, in partnership with the Green Infrastructure Officer outlined above.

Practical Implications of Green Infrastructure Funding

12.20 The procurement of adequate capital and revenue funding is vital to the successful creation, protection, improvement and maintenance of green infrastructure, being required for all stages of these processes.

12.21 Capital funding is required for green infrastructure creation and for projects involving the significant improvement of existing green infrastructure, for example the renovation of a poorly performing urban park. The level of capital funding required to deliver a project is generally agreed at the outset, as well as the period over which the funding will be released. The predictability and finiteness of this funding often makes it a preferred option for funding bodies.

12.22 Main capital funding sources relevant to East Staffordshire include:

- Section 106 Agreements
- Community Infrastructure Levy
- National Forest funding mechanisms
- Forestry Commission English Woodland Grant Scheme
- Aggregates Levy Sustainability Fund
- SUSTRANS
- Carillion Natural Habitats Fund

12.23 **Revenue funding** to secure the ongoing management of green infrastructure is generally more difficult to obtain and is therefore covered in greater detail in this section. The difficulty of obtaining this funding is principally due to the long-term nature of the revenue funding requirement and while green infrastructure management was historically funded by local authorities, it is not a statutory requirement and as such investment has been greatly reduced over the last 20-30 years

12.24 It is recognised in various publications by CABE Space[21] that this has resulted in a significant drop in the quality of urban parks and open spaces and that this can only be remedied by proper investment in long-term management, supporting other services such as community liaison.

12.25 In 2006 CABE Space published "Paying for Parks: Eight models for funding urban green spaces", the result of research into effective methods to reverse the decline of parks and green spaces. This publication identified the following as existing best practice models in place around the world used to secure revenue funding for green infrastructure management:

- Traditional local authority funding
- Multi-agency public sector funding
- Taxation initiatives
- Planning and development opportunities
- Bonds and commercial finance
- Income-generating opportunities
- Endowments
- Voluntary sector involvement

12.26 In the context of East Staffordshire, the **traditional local authority funding** model is not considered suitable because the management and maintenance of parks and open spaces is not a statutory requirement, therefore local authorities across the UK are reluctant to commit additional resources to it in the face of competing services for which the requirement is statutory. This funding model can also restrict long-term management planning for green infrastructure because of the annual fluctuation in the level of central funding and tax income provided to local authorities for revenue expenditure.

12.27 The **taxation initiatives** model was rejected because it is not suitable for the UK context. This is because the model is reliant upon local authorities having the freedom to impose additional local taxes for green infrastructure management, which is limited in the UK.

12.28 The bonds and commercial finance model was also rejected due to its unsuitability to the UK context because it is based upon voters allowing their local authority to receive loan funding from bonds and this is not permitted in the UK.

12.29 The following short list of models was therefore considered to be suitable, either

[21] Including "Decent Parks? Decent Behaviour?" and "Paying for Parks"

individually or in combination, for sourcing green infrastructure revenue funding in East Staffordshire:

- Multi-agency public sector funding
- Planning and development opportunities
- Income-generating opportunities
- Endowments
- Voluntary sector involvement

12.30 The multi-agency public sector funding model is based upon the provision of ongoing management funds (or other resources) by a range of bodies whose objectives may be met by the provision of high quality green infrastructure. This may include the local police authority, which may provide resources to the management of urban green spaces to reduce the incidence of anti-social behaviour associated with these areas and in turn the demand on police resources. There are also opportunities for those needing rehabilitation, such as young offenders, to become directly involved in the management and improvement of local green spaces, engendering a sense of ownership of and responsibility for their local environment.

12.31 Another authority which may support the ongoing management of green infrastructure is the local Primary Care Trust. This is because the availability of informal recreation opportunities in a well-managed natural environment encourages healthy living, which in turn reduces the incidence of diseases related to poor lifestyles, such as heart disease and diabetes. In some parts of the West Midlands, for example the Black Country, the use of local parks in the vicinity of health centres for walking is being directly prescribed by doctors for patients with heart disorders arising from poor lifestyle. Another relevant example is the British Trust for Conservation Volunteers “Green Gyms” initiative, which aims to improve peoples’ health through work to improve their local environment. This approach would be particularly viable in Burton upon Trent because of the significant areas of accessible greenspace provided by the floodplain of the River Trent and the amount of accessible woodland created by the National Forest Company.

12.32 As the capital of the National Forest and the location of a forestry exemplar project, Burton upon Trent has the potential to engage with the Forestry Commission to secure funding for the ongoing management of its significant area of urban woodland. This could be through the medium of the existing English Woodland Grant Scheme, or through a new targeted regional fund for urban woodland, which could also benefit Uttoxeter.

12.33 Community Infrastructure Levy (CIL) is are another method of obtaining revenue funds which fall under this model. CIL is designed to replace the traditional Section 106 Agreement as a funding method with a much broader scope, being able to fund off-site community facilities. CIL involves a standard levy of 5-10% of the cost of an average house (approximately £20,000) being paid by the developer for each home constructed, rather than negotiating Section 106 sums on a site- by-site basis. Developers would pay a proportion of the money prior to the receipt of planning permission, with the balance being paid upon completion of the development. In a similar manner to Section 106 Agreements, a proportion of this sum would then be invested by the local authority, to provide an annuity for ongoing green infrastructure management.

12.34 Service charges also fall within this funding model. These are more frequently applied to commercial and industrial developments than residential and differ from the previous two methods in that the open spaces within the new developments are owned and maintained by a private management company rather than being adopted by the local authority. Revenue funding for the maintenance of these green resources is collected by the private

management company via a service charge which is levied on the businesses occupying these developments and which is also used for such functions as building maintenance, security and road infrastructure maintenance.

12.35 The realisation of **income-generating opportunities** is a very desirable method of sourcing revenue funding, as it enables at least a proportion of funding to be internally generated rather than relying upon external sources. The majority of opportunities are related to the collection of profits from services provided within parks and open spaces such as car parking, rental income from businesses such as kiosks, cafés and restaurants, boating lakes, go-cart tracks and sports facilities. Other potential sources of income include the hiring out of attractive features such as pavilions for weddings and other events and also corporate sponsorship, with local businesses paying either a lump sum (to be invested by the local authority) or an annual sum to sponsor an area or feature of a park in exchange for local promotion. In suitable locations income may also be sourced from the generation of renewable electricity within parks, through wind turbines and, where space allows, the growing of biomass fuels.

12.36 Endowments can be a very effective means of using up-front payments to provide ongoing revenue income where green infrastructure resources are adopted by non-public bodies such as charitable trusts. Under this model a lump sum or property portfolio is transferred to the adopting body at the point of adoption.

12.37 In the case of lump sums, this is then secured in a ring-fenced investment fund with annual interest providing the required revenue funding and the original capital remaining untouched.

12.38 This fund may also be increased from time to time through fundraising and donations or through additional lump sum payments if further land is adopted. For this method it is critically important to correctly calculate the initial investment, otherwise this can lead to a shortfall in the long term.

12.39 In the case of property portfolios, these are retained by the adopting body with annual rental income providing the required level of revenue funding.

12.40 Within East Staffordshire there are a number of potential organisations who could perform this role, including the National Forest Company, Forest Enterprise and Staffordshire Wildlife Trust.

12.41 Voluntary sector involvement has the potential to bring a number of benefits to the ongoing management of green infrastructure. With regard to the generation of revenue income, friends groups and not-for-profit community organisations can be very effective fundraisers, attracting donations from local businesses and the general public to supplement other forms of revenue funding. Another important consideration is the labour input that the voluntary sector can bring to the ongoing management of green infrastructure, which can save considerable financial outlay on contract labour. Groups such as the British Trust for Conservation Volunteers, Groundwork Trusts and Community Service Volunteers (all present and active within Staffordshire) can undertake a wide variety of maintenance tasks, while delivering additional social benefits of healthy activity and lifelong learning.

Glossary

Access to Natural Greenspace Standard (ANGSt)
A national standard championed by Natural England promoting the provision of natural space within and around populated areas to ensure that people have sufficient ability to access the quality of life benefits that contact with nature can bring. The minimum standards include people having access to at least one accessible natural greenspace within 300 linear metres of home and at least one hectare of Local Nature Reserve per 1000 population. Standards for larger natural spaces are also set out.

Accessibility
A general term used to describe the degree to which a product, e.g. public park or a local service (e.g. GP surgery, bus stop) can be accessed by potential users.
Agricultural Land Classification
A method for assessing the quality of farmland to enable informed choices to be made about its future use within the planning system. ALC classifies land into five grades. The best and most versatile land is Grade 1-3. The system is currently administered by Defra.

Ancient Woodland
Ancient, semi-natural woods which have had a continuous cover of native trees and plants since at least 1600 AD. Having not been cleared and/or extensively replanted since then, Natural England and other organisations regard Ancient Woodland important sites for nature conservation.

Biodiversity
Shorthand for 'biological diversity' or 'the diversity of wildlife'; a measure of the range and variability of species, individuals, genetic character, ecosystems and habitats at any scale from local to global levels, and the structural and functional interrelationships between and within these different levels.

Biodiversity Action Plan (BAP)
An agreed plan for a habitat or species, which forms part of the UK's commitment to biodiversity. For further information consult the BAP website: http://www.ukbap.org.uk/
Biodiversity Alert Sites (BAS) Grade II Site of Biological Interest (discussed below). These are non-statutory wildlife sites which are considered to be of local importance.

Biomass fuels
A wide variety of naturally sourced combustible materials which can be used to generate heat and electricity. Examples of biofuels include short rotation coppice, Miscanthus grass and the residue for woodland management schemes and sawmills.

Carbon dioxide(CO_2)
One of the principal greenhouse gases.

Catchment
A surface water catchment is the total area that drains into a river. A groundwater catchment is the total area that contributes to the groundwater part of the river flow.

CIRIA
Member-based research and information organisation which aims to improve the productivity of the UK construction industry. Members of the CIRIA include

representatives from all parts of the construction supply chain. See http://www.ciria.org for further information.

Climate
The 'average weather' described in terms of the mean and variability of relevant quantities over a period of time ranging from months to thousands or millions of years. The classical period is 30 years, as defined by the World Meteorological Organisation (WMO)

Climate Change
Statistically significant variation in either the mean state of the climate, or in its variability, persisting for an extended period (typically decades or longer). Climate change may be due to natural internal processes or due to anthropogenic changes to the composition of the atmosphere brought about by the combustion of fossil fuels.

Connectivity
Is a measure of the ease of travel between two points. In terms of green infrastructure connectivity relates to the ease of movement of both people and wildlife between different ecological, historical and cultural assets (nodes) distributed across the landscape.

Conservation Areas
An area, as defined in the Planning (Listed Building and Conservation Areas) Act 1990, designated as being of special architectural or historic interest and therefore protected from any alterations which would destroy its character.

Corridors
Linkages that connect the nodes (discussed below) into coherent, landscape scale frameworks that deliver significantly greater value than the nodes in isolation. Corridors represent the means for wildlife to move between nodes providing different habitat functions and for people to move between population centres and nodes and examples include watercourses and bridleways.

Department for Communities and Local Government (DCLG)
The government department responsible for planning, local government and housing.

Developer
A person or a body of persons, company, firm and such other private or government undertaking, who develops, builds, designs, organises, promotes, finances, operates, maintain or manages the re-development of an existing area of vacant or under used land.

Endowment
An endowment refers to any assets, funds, or property that is donated to an individual, organisation, or group to be used as a source of income.

English Heritage
A national body funded by the Government whose main roles are to promote and give information and advice on built heritage and building conservation matters. Its full name is English Heritage and the Royal Commission on the Historical Monuments of England.

Environment Agency (EA)
The Environment Agency came into being on 1 April 1996 following the 1995 Environment Act, joining together the National Rivers Authority, Her Majesty's Inspectorate of Pollution and waste regulation authorities. The Environment Agency has a statutory duty to protect and enhance the environment in England and Wales. It is responsible for water abstraction and water quality in rivers, lakes, reservoirs, estuaries, and coastal waters up to three miles from the shoreline and water stored naturally underground. In addition, it has powers to decide if water quality is up to standard and if not to determine how to improve it. The Environment Agency also controls the amount of water that can be taken from rivers and boreholes.

Floodplain
An area of land over which water flows or is stored during a flood event or would flow but for the presence of flood defences.

Flood Risk
The level of flood risk is the product of the frequency or likelihood of flood events and their consequences (such as loss, damage, harm, distress and disruption).

Forestry Commission
The Forestry Commission (established in 1919) is a non-ministerial Government Department responsible for forestry in Great Britain. Its mission is to protect and expand Britain's forest and woodlands and increase their value to society and the environment.

Fossil Fuel
An energy source formed in the earth's crust from organic material. The common fossil fuels are oil, coal, and natural gas.

Geodiversity
The variety of rocks, fossils, minerals, landforms, soils and natural processes, such as weathering, erosion and sedimentation, that underlie and determine the character of our natural landscape and environment.

Geographical Information System (GIS)
A GIS is a computer-based system for capturing, storing, checking, integrating, manipulating, analysing and displaying data that are spatially referenced.

Grassland Inventory
Inventory produced by Natural England with the aim of making lowland grassland data available for conservation management schemes across the UK. This level of information allows an assessment to be made of the conservation value of a grassland site within a local context.

Green Infrastructure
The open environment within urban areas, the urban fringe and the countryside. It is a network of connected, high quality, multi-functional open spaces, corridors and the links in between that provide multiple benefits for people and wildlife.

Greenhouse gas (GHG)
Gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and emit radiation at specific wavelengths within the spectrum of infrared radiation

emitted by the Earth's surface, the atmosphere and clouds. The primary greenhouse gases are water vapour (H2O), carbon dioxide (CO2), nitrous oxide (N2O), methane (CH4), and ozone (O3).

Greenspace
Greenspace is any vegetated land or water within or adjoining an urban area. It includes 'natural green spaces (woodland, flower meadows), derelict, vacant and contaminated land, green corridors (paths, disused railway lines, rivers and canals) and other functional green spaces including e.g. cemeteries and allotments.

Groundwater
Water occurring below ground in natural formations (typically rocks, gravels and sands).

Habitat
The natural environment in which an organism or population lives. Habitat may refer to all of the organisms and their physical environment in a particular place.

Habitats Directive
European Community Directive (92/43/EEC) on the Conservation of Natural Habitats and of Wild Flora and Fauna. Implemented in the UK through the Conservation (Natural Habitats, etc.) Regulations (1994) and known as the 'Habitats Directive'. It establishes a system of protection for certain fauna, flora and habitats deemed to be of European conservation importance.

Historic environment
The 'historic environment' encompasses all those material remains that our ancestors have created in the landscapes of town and countryside. It covers the whole spectrum of human activity from the largest - towns, cathedrals or motorways, to the very smallest - signposts, standing stones or flint tools.

Historic Environment Records (HER)
Historic Environment Records (HERs) are the local authority-based services used for planning, but they also operate a public service and play a role in education. These records were previously known as Sites and Monuments Records or SMRs: the name has changed to reflect the wider scope of the data they now contain.

HM Government
An abbreviation for Her Majesty's Government which represents part of the legislative body of the United Kingdom. The Government includes the Cabinet, Civil Service and the various Government Departments responsible for implementing government policy and advising ministers.

Joint Character Areas (JCA)
Generated by Natural England, Joint Character Areas provide a context to local planning, action and development. There are 159 areas that are unique in terms of a combination of physiographic, land use, historical and cultural attributes.

Land Description Unit (LDU)
LDUs are the largest homogenous units sharing a similar pattern of physical, biological and historical components. They can be used as mapping units across disciplinary boundaries encompassing ecology, archaeology and landscape and as such they are the basic units on which assessment, evaluation and decision making is based.

Land Use
Various designations of activities, developments, cropping types, etc, for which land is used. Land management various activities relating to the practice of agriculture, forestry, etc.

Landscape Character
Landscape Character is defined as an expression of pattern within the landscape itself, resulting from particular combinations of natural, historical and aesthetic factors that make one place different from another.

Landscape Character Type (LCT)
This is a generic term for the representation of a particular combination of landscape elements and land uses that create a particular character. One example could be "riparian alluvial lowland farmlands", representing all examples of farmed landscapes associated with lowland river floodplains.

Landscape Quality
Landscape quality is not the same as scenic beauty. Landscape quality is a function of certain characteristics that are capable of definition and appraisal. There are two major contributors to the quality of a landscape: its strength of character and the condition of the elements of which it is composed.

Landscape Sensitivity
The ability of a landscape to sustain development and other forces which trigger landscape change.

Listed Buildings
English Heritage is responsible for identifying and protecting historic buildings by recommending the most important of them for 'listing'. There are three grades of listed buildings depending on their relative importance:

- Grade I Buildings are those of exceptional interest
- Grade II* Buildings are particularly important buildings of more than special interest
- Grade II Buildings are of special interest, warranting every effort to preserve them.

Local Authority
An administrative unit of local government

Local Biodiversity Action Plan (LBAP)
A process rather than a plan which seeks to ensure that nationally and locally important species and habitats are conserved and enhanced in a given area through focused local action.

Local Nature Reserve(LNR)
LNRs are designated under the National Parks and Access to the Countryside Act (1949) by local authorities (which must have some legal control over the site) in consultation with Natural England. These sites are designated for their locally important wildlife or geological features and are generally intended for educational and amenity uses in addition to conservation.

Locally Important Geological Sites
Non-statutory sites which represent locally important places for geology, geomorphology and soils. These sites are considered worthy of protection for their education, research, historical or aesthetic importance.

Midlands Wood Fuel
Company based in Shrewsbury which aims to provide a green heating solution to householders, organisations and businesses who require low running costs and the convenience and efficiency of a modern appliance.

Multi-functionality
Multifunctionality refers to the integration and interaction of different functions or activities on the same piece of land. This is key to the efficient and sustainable use of land, especially in small and crowded urban environments where pressures on land are high.

National Cycle Network (NCN)
A scheme promoted by the charity SUSTRANS which led to the development of 10,000 miles of linked cycle routes by August 2005. The NCN is partly funded by the Millennium Commission, with approximately 80% of funding coming from other sources including the National Lottery.

National Forest
The National Forest is a forest in the making, and will eventually transform the landscape of 200 square miles of central England. The forest will incorporate new and maturing woodland within a wide variety of landscapes, presenting opportunities for many to take part in its development.

National Forest Company
The National Forest Company leads the creation of The National Forest. The National Forest Company was established by Government in April 1995. It is a non-departmental public body sponsored by the Department for Environment, Food and Rural Affairs (Defra).

National Playing Fields Association Six Acre Standard (NFPA)
The NFPA was founded to help ensure that every individual would have the opportunity to access and participate in outdoor recreational facilities. The NFPA standard is a target for the guidance of local authorities and others who wish to check the existing provision of green space and ensure that new developments will meet the future recreational requirements of those living in them.

Natural Areas
Sub-divisions of England, each with a characteristic association of wildlife and natural features. There are 120 Natural Areas in England and each has a unique identity resulting from the interaction of wildlife, landforms, geology, land use and human impact.

Natural England
Natural England was launched on 11 October 2006, joining English Nature, the landscape, access and recreation elements of the Countryside Agency and the environmental land management functions of the Rural Development Service. It works for people, places and nature, to enhance biodiversity, landscapes and wildlife in rural, urban, coastal and marine areas. It also promotes access, recreation and public

well-being, and aims to contribute to the way natural resources are managed so that they can be enjoyed now and in the future.

New Growth Point
Growth Points were a pre-Colaition Government initiative designed to provide support to local communities who wish to pursue large scale and sustainable growth, including new housing, through a partnership with Government. 29 areas have been named as New Growth Points across the East, South East, South West, East Midlands and West Midlands.

Nodes
Features (or clusters of features) of value that may be biodiversity reservoirs, characteristic landscape features, public parks or often a combination of these and other uses.

Ordnance survey(OS)
Ordnance Survey is an executive agency of the United Kingdom government. It is the national mapping agency for Great Britain.

Phase 1 Habitat Survey
Relatively fast technique for mapping the semi-natural vegetation and wildlife habitat over large areas of the countryside. Categorisation of habitats is based principally on vegetation with reference to topographic and substrate features.

Public Rights of Way
Rights of way are minor public highways that exist for the benefit of the community at large, in much the same way as the public road network does. In England there are approximately 188,700 kilometres of public rights of way. Types of right of way include footpaths, bridleways, byways open to all forms of traffic (BOATs) and restricted rights of way (permissible only to mechanically propelled vehicles).

Regional Character Areas(RCA)
Unit of land, the boundaries of which enclose landscapes of a broadly similar type. A landscape character type is not a land unit: it is a concept, based on characteristics that can be used to identity and classify a particular kind of landscape.

Regionally Important Geological Sites(RIGS)
Non-statutory sites which are important places for geology, geomorphology and soils. These sites are considered worthy of protection for their education, research, historical or aesthetic importance.

Registered Common Land
Registered common land is a piece of land owned and registered under the 1965 Common Land Act by one person, but over which other people can exercise certain traditional rights, such as allowing their livestock to graze upon it. There are around 0.5 million hectares of registered common land in England and Wales,

Registered Parks and Gardens
Parks and Gardens created before 1939 which still retain their special interest and which have been listed and graded in the Register of Parks and Gardens of Special Historic Interest as maintained by English Heritage.

Renewable energy
Energy captured using renewable sources. These include solar, wind, wave and biomass fuel Power.

Scheduled Monuments (SAM)
Scheduled Monuments are nationally important archaeological sites and monuments that are given legal protection by being placed on a list, or 'schedule'. English Heritage is responsible for identifying sites in England. Further details can be found at English Heritage's website: http://www.english-heritage.org.uk

Site of Special Scientific Interest (SSSI)
SSSIs are the finest sites for wildlife and natural features in England. Sites are identified by Natural England using the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000). All SACs, SPAs and Ramsar sites are designated as SSSIs. For further information refer to Natural England's website: http://www.naturalengland.org.uk/special/sssi/

Sites of Biological Importance (SBI)
Sites of Biological Importance (SBIs) is the name given to the most important non-statutory sites for nature conservation occurring across Staffordshire (BAS see above, are considered to be of local importance). SBIs are the equivalent of the UK Government's Local Wildlife Site designation, and while not legally protected they must be taken into account by the Local Authority considering an application which would affect a SBI.

Sites of Local Conservation Importance (SINCS)
Non-statutory sites which represent locally important places for ecology. These sites are considered worthy of protection for their education, research, historical or aesthetic importance.

Staffordshire Landscape Guidelines
The Guidelines represent a manual for management and change in the rural and urban landscape of Staffordshire. Guidelines which relate to a variety of landscapes and land uses including farming and highways are available to help planners to ensure that the landscape ofStaffordshire is enhanced in future.

Staffordshire Way
The Staffordshire Way is a walk covering 92 miles from Mow Cop Castle to Kinver. The route traverses the county of Staffordshire from north to south. The walk was developed in 3 stages and finally completed in 1983. In 1995 the route was refurbished and remapped by the Ramblers Association.

Staffordshire Wildlife Trust
The Staffordshire Wildlife Trust is a charitable, Non-Governmental Organisation responsible for raising the awareness about the natural environment in Staffordshire amongst other organisations and individuals. The Trust also supply management advice to interested parties and manage a selection of valued sites across the County.

Supplementary Planning Guidance/Document
Prepared by the Local Planning Authority to supplement matters covered in the development plan. It is not subject to the same lengthy statutory adoption process as the development plan. Instead the Authority can approve the document by formal resolution, but it must be subjected to full public consultation if it is to be accorded any

weight in decisions on development proposals.

Surface water
Run-off from rainwater that falls onto customers' properties (such as roofs, paths and driveways).

Surface water drainage
The removal of rainwater from exterior areas of a property (such as roofs and driveways) to a surface water sewer or combined sew

Sustainable Development
Development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It is often summed up by the phrases 'think globally act locally' and 'don't cheat your children'.

Sustainable Drainage Systems(SUDS)
A sequence of management practices and control structures designed to drain surface water in a more sustainable fashion than some conventional techniques. May also be referred to as sustainable drainage techniques.

The National Forestry Strategy
Document ratified by Government and launched in March 2004 which sets out the aims and objectives for the future development of the National Forest over the next ten years (2004-2014). The Strategy provides a framework rather than site specific blue-print for how the Forest should be developed.

West Midlands Biodiversity Partnership (WMBP)
Partnership consisting of 20 member organisations, whose joint aim is to help local people across the West Midlands to meet the challenge of caring for the Region's wildlife by protecting important species and habitats, replacing past losses and making new provisions for wildlife. The Partnership also supports survey work, gives advice to land-owners and managers, and works with policy and decision-makers.

Wetland
An area that is inundated or saturated by surface water or groundwater with vegetation adapted for life under those soil conditions (for example, lakes, swamps, marshes).

Wood pasture
Wood-pastures are derived from medieval forests and embankments, wooded commons, parks and pastures with trees in them. Some have subsequently had a designed landscape superimposed in the 16th to 19th centuries. A range of native species usually predominates amongst the old trees but there may be non-native species which have been planted or regenerated naturally.

Woodland
Land covered with wood, i.e. with trees; a wooded region or piece of ground. The term used
in British woodland management to mean any smaller area covered in trees, however dense.

Appendix 1: Policy Context

National Policy	
Title: The Biodiversity Strategy for England 'Working with the Grain of Nature' (2002)	
Source: http://www.defra.gov.uk/wildlife-countryside/biodiversity/biostrat/index.htm	
Description: The Strategy seeks to ensure biodiversity considerations become embedded in all main sectors of public policy and setting out a programme for the next five years to make the changes necessary to conserve, enhance and work with the grain of nature and ecosystems rather than against them.	
Key Objectives: • To care for our natural heritage • Make the countryside attractive and enjoyable for all and preserve biological diversity	Implications for GI Study: • The GI Study will need to ensure that development does not have a detrimental impact on biodiversity at a regional and local level.
Title: Biodiversity by Design: A Guide for Sustainable Communities (Sep 2004)	
Source: http://www.tcpa.org.uk/downloads/TCPA_biodiversity_guide_lowres.pdf	
Description: Produced by TCPA to support Sustainable Communities Plan, in particular, environmental enhancement to help balance proposed scale of housing growth. Supporting "richness of biodiversity" is seen as a route to building more sustainable neighbourhoods. Guidance on context relates to existing green infrastructure, landscape character, local distinctiveness and protected habitats and species. Should consider ecological potential of all areas including Brownfield sites. Landscape character assessments / area profiles recommended as aids to defining landscape character and local distinctiveness. Local authorities and developers have particular responsibility to mitigate impacts of development on designated sites, priority habitats and species and also avoid damage to ecosystems. Section on master planning provides guidance on creating new green infrastructure (the types and sizes of spaces and habitats required to provide a network), regional parks, green grids and community forests (creating and managing large-scale areas of ecological interest), parks and natural green spaces (adapting existing parks, creating new parks and managing existing nature reserves), greenway linkages (maintaining, extending and creating wildlife corridors, such as woodlands and wetlands), and street trees (incorporating existing trees and new trees into designs and layouts). Also includes guidance on detailed design, such as creating communal "doorstep" spaces for wildlife, making provision for biodiversity in "green" buildings and	

private spaces such as gardens, roof gardens and green roofs, and guidance on short, medium and long-term management and stewardship.	
Key Objectives: • Identifies three "core principles" that provide the basis of a "biodiversity by design" approach, as follows: • Ecological Function – understanding the ecological systems supported by the habitats present, communities of flora and fauna and the environment and conditions they rely water.on for support, and size / spatial relationships of habitats to each other; • Realising the Benefits – recognising "services" vegetation provides (e.g. trees acting as carbon sink/ filtering pollution / providing air conditioning), how natural green space contributes to quality of life (e.g. health and wellbeing, social cohesion), and economic value of green space (e.g. increase in property values). • Connecting with Nature – culture change in attitudes towards nature, through positive experience, use of green space as educational resource, and community involvement,e.g. allotments, community gardens, city farms.	Implications for GI Study: • This guidance is relevant to any area where major developments take place e.g. new urban extensions. • The GI Study will need to take account of predicted growth (e.g. population, housing, changing demographics) and how these issues may impact upon the affects of surface run off and ground water. • When preparing the GI Study, this guidance may also be of use on the benefits of designing for biodiversity.
Title: Habitats Regulations – The Conservation (Natural Habitats &c.) Regulations (1994)	
Source: http://www.opsi.gov.uk/si/si1994/Uksi_19942716_en_1.htm	
Description: Regulations 37, 48 – Planning policies should encourage the management of features of the landscape which are of major importance for wild fauna and flora. Before giving permission for any plan or project that is likely to have a significant effect upon a European Site, authorities must also make an "appropriate assessment" of the implications. Consultation Paper on amendments to the Habitats Regulations, May 2006, proposes new Regulations 85A, 85B and 85C – Requirement for "appropriate assessment" to apply to local development documents.	
Key Objectives: • See above Directive 92/43/EEC (Habitats Directive), on the Conservation of Natural Habitats and of wild Fauna and	Implications for GI Study: • The GI Study must be aware of, and take into account, any existing SACs in the region (there are 15 in the West

Flora and The EC Directive on the Conservation of Wild Birds 79/409/EEC 1979.	Midlands), or within a location where the GI Study may have an effect for the protection and maintenance of these European protected sites.
Title: Department for Communities and Local Government (CLG) – The National Planning Policy Framework (NPPF)	
Source: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf	
Description: National planning policy sets out the national framework for planning policy in England including the presumption in favour of sustainable development.	
Key Objectives: • Development across England should be sustainable; • Local planning authorities should promote development which leads to environmental, economic and social objectives being met; • Local Plans should take account of climate change. • The planning system should contribute to and enhance the natural and local environment. • Planning policy should plan positively for the creation, protection, enhancement and management of green infrastructure • Local Plans should identify and map the components that form green infrastructure to guide appropriate development in the right locations	Implications for GI Study: • The GI Study should be aware of the requirement to promote sustainable development. • GI study should consider how GI can mitigate the effects of climate change through appropriate adaption measures as part of delivering sustainable development. • GI study should be aware as to how the planning system can contribute to the protection, enhancement and management of ecosystems, biodiversity and geodiversity through a clear strategy and relevant policies in a Local Plan. • GI study should identify what GI priorities are for the Borough to inform the Local Plan process and its policies.
Title: Defra: A Strategy for England's Trees, Woods and Forests (2007)	
Source: http://www.defra.gov.uk/wildlife-countryside/rddteam/pdf/0706forestry-strategy.pdf	
Description: National strategy for the development of England's trees, woods and forests and their integration with a variety of agendas including climate change, timber production, recreation, tourism, biodiversity, green infrastructure, healthy living, landscape character and renewable energy generation.	
Key objectives: • Provide, in England, a resource of trees, woods and forests in places where they can contribute most in terms of environmental, economic and social benefits now and for	Implications for GI Study: • The GI Study should take account of the potential of trees, woods and forests to deliver against a wide variety of environmental agendas, including the liveability of new

future generations. • Ensure that existing and newly-planted trees, woods and forests are resilient to the impacts of climate change and also contribute to the way in which biodiversity and natural resources adjust to a changing climate. • Protect and enhance the environmental resources of water, soil, air, biodiversity and landscapes (both woodland and non-woodland), and the cultural and amenity values of trees and woodland. • Increase the contribution that trees, woods and forests make to the quality of life for those living in, working in or visiting England. • Improve the competitiveness of woodland business and promote the development of new or improved markets for sustainable woodland products and ecosystem services where this will deliver identifiable public benefits, nationally or locally, including the reduction of carbon emissions.	development. • The GI Study should identify means whereby the creation and improvement of green infrastructure in East Staffordshire can contribute to the key objectives of the strategy.
Title: The National Forest Strategy 2004-2014 and The National Forest Delivery Plan 2009-2014	
Source: http://www.nationalforest.org/document/reports/delivery_plan.pdf	
Description: This document summarises the third edition of the National Forest Strategy which covers the period 2004-2014. The National Forest stretches 200 miles from and links the ancient forests of Needwood and Charnwood. The document explores the role of the National Forest as a centre for recreation and research and how the National Forest will continue to grow in size and status.	
Key Objectives: • Create a coherent and identifiable new entity known as The National Forest. • Transform the area through a purposeful conversion of land use on a significant scale and at an exceptional rate. • Be a recognisable forest – by expanding wooded cover from 6% to about one third of the area. • Enrich a diversity of landscapes and wildlife habitats.	Implications for GI Study: • The GI Study must consider how it can guide the planting of an estimated 10 million trees over the course of the next decade. • The GI Study should be aware that the National Forest has an obligation to 'respect and enhance the existing character of the landscape'. A high quality GI Study could be an excellent tool with which to shape this process.

• Be enjoyable, welcoming and accessible for all. • Involve communities in the Forest's creation. • Stimulate and add value to social and economic development. • Be a working forest – contributing to national timber supplies and biofuels/biomass. • Be sustainable – environmentally, economically and socially. • Be geographically diverse and sensitive to landscape, natural and cultural history and help to integrate urban and rural environments.	• Projects suggested by the GI Study linked with the National Forest should involve local communities. • The GI Study has a duty to consider management practices which would make newly created parts of the National Forest financially sustainable. • The GI Study has a key role to play in linking urban centres with the National Forest. This can be achieved through improved access routes, and the creation of woodland around the urban fringe.
Title: CABE Space: Manifesto for Better Public Spaces (Mar 2004)	
Source: http://www.cabe.org.uk/AssetLibrary/2319.pdf	
Description: The document represents a declaration of CABE's aims in relation to public space. The role of public open space as a social 'glue' binding the community together is emphasised as is the need for public space to be valued more highly by local authorities.	
Key Objectives: • Ensure that the creation and maintenance of high quality public open space is a local and national priority. • Give local people a voice in deciding how public spaces are to be developed and maintained. • Make sure that planners know how to create good quality open space. • Ensure that local authorities understand the pivotal role public parks and open space play as a force for community cohesion. • Give a platform to discuss the issue of risk in public space and encourage the creation of more diverse and interesting open spaces. • Promote the beneficial role public open spaces can perform in improving individuals' fitness and general well being. • To establish open spaces which are accessible to all. • Work with planners to create public open spaces that	Implications for the GI Study: • The GI Study must understand the high value of public space and relate this to the planners. A 'good quality' public space can reduce crime, promote social cohesion and raise 'quality of life'. • The GI Study should be ambitious when considering the design of public space. • The GI Study also has an obligation to communicate with the local population to ensure that public spaces meet local requirements. • The GI Study should have an awareness of how 'good open space' is created and the positive role CABE can play in reaching this objective. • The GI Study should consider how public spaces can be linked and enhanced to provide opportunities for local people to exercise and find enjoyment. • The GI Study should take steps to develop projects which

<table>
<tr><td>support and enhance levels of local biodiversity.
• Assist with the development of public spaces which are safe and clean.
• Encourage all sections of the community to work together to improve their environment.</td><td>give public spaces a sense of local ‘ownership’.</td></tr>
<tr><td></td><td></td></tr>
<tr><td colspan="2">Title: CABE Space: Does Money Grow on Trees? (Mar 2005)</td></tr>
<tr><td colspan="2">Source: http://www.cabe.org.uk/AssetLibrary/2022.pdf</td></tr>
<tr><td colspan="2">Description: An interesting piece of research which uses ten case studies to examine the effect of green spaces on surrounding property prices. The document supports the concept of a multi-functional network and confirms the positive role good quality green spaces can play in increasing local property prices.</td></tr>
<tr><td>Key Objectives:
• Evaluate the impact of green spaces (good and bad) on the value of housing properties close by.</td><td>Implications for GI Study:
• The GI Study should look to maximise the ‘area of influence’ of green spaces. This can be achieved by moving away from enclosed parks surrounded by houses to the installation of ‘networks’ of green space which spread out across the entire development.
• The GI Study should suggest designs of public spaces which can be financially self-sustaining.
• Innovation in terms of the design of green space should be taken into account by the GI Study as it can attract publicity and investment.
• One technical point is that parks which have houses looking onto them tend to suffer less crime and anti-social behaviour than those where houses ‘back’ onto them.
• The report provides an economic motive for developers to invest in green spaces, and GI in general.
• The report gives examples of how the creation of a green space has led to a rise in surrounding property values which in turn has offset the cost of green space construction.</td></tr>
<tr><td></td><td></td></tr>
</table>

<table>
<tr><td colspan="2">Title: CABE Space: Start with the park: Creating sustainable urban green spaces in areas of housing growth and renewal (2005)</td></tr>
<tr><td colspan="2">Source: http://www.cabe.org.uk/AssetLibrary/1715.pdf</td></tr>
<tr><td colspan="2">Description: Guidance for the successful creation of green spaces in areas of new development and regeneration of existing deprived areas. The guidance is based on international experience and cites a wide range of successful case studies from around the world. It covers the need for green spaces, the challenges facing green space creation, planning new green infrastructure and design considerations including sustainability, character, connectivity, legibility and biodiversity.</td></tr>
<tr><td>Key objectives:
To demonstrate the value of parks and open spaces to the sustainable communities agenda.
To promote the early establishment of planned green spaces within development schemes.
To inform the good design of new parks and open spaces through recognised international case studies.</td><td>Implications for GI study:
The GI Study should incorporate the recommendations of the guidance in the way it addresses parks and open spaces.</td></tr>
<tr><td colspan="2">Title: CABE Space: Actions for housing growth: Creating a legacy of great places (2007)</td></tr>
<tr><td colspan="2">Source: http://www.cabe.org.uk/AssetLibrary/9352.pdf</td></tr>
<tr><td colspan="2">Description: Guidance for the successful delivery of housing growth and sustainable communities, comprising 10 practical actions based upon previous CABE studies and established case studies.</td></tr>
<tr><td>Key objectives:
To promote realisation of the scale of the opportunity currently presented and the need to “think big”.
To provide leadership in decision-making bodies, particularly local government.
To ensure that design skills are integrated with all planning and development processes.
To place sustainable development at the heart of thinking and action.
To recognise the value of design and its role in creating distinctive places.
To plan strategically for public space.
To work in partnership and create consensus.</td><td>Implications for GI Study:
The GI Study should, where possible, support the promoted actions of this document towards the creation of new sustainable communities.
The GI Study should engage with the scale of the Local Plan’s housing growth, making recommendations at a strategic scale.
The GI Study should explore ways of integrating sustainable development with the delivery of housing.
The GI Study should provide a context for the creation of high quality public space, identifying the wider network to which it should be connected to maximise its value.</td></tr>
</table>

• Inspire and involve local communities in the process of change. • Adopt policies and tools to deliver high-quality places. • Embrace innovation and creative processes.	
Title: Working with the Grain of Nature: The England Biodiversity Strategy (2002)	
Source: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69284/pb7718-biostrategy-021016.pdf	
Description: Strategy to enhance biodiversity and habitats in England.	
Key objectives: • To address decline and loss of biodiversity in England.	Implications for GI Study: • The GI Study will need to ensure that development does not have a detrimental impact on biodiversity. • The GI study should support how development can enhance the value of biodiversity as part of development proposals.
Title: The Natural Choice: securing the value of nature – Natural Environment White Paper (2011)	
Source: http://www.official-documents.gov.uk/document/cm80/8082/8082.pdf	
Description: Improve the quality and increase the value of the natural environment across England through the promotion of a green economy.	
Key objectives: • To promote and improve biodiversity and ecological networks • To provide a new Biodiversity Strategy for England (to replace the 2002 document). • To provide a strategic approach to planning for biodiversity.	Implications for GI Study: • The GI Study will need to ensure that development does not have a detrimental impact on biodiversity. • The GI study should support how development can enhance the value of biodiversity as part of development proposals.
Title: The UK Post-2010 Biodiversity Network (July 2012)	
Source: http://www.jncc.defra.gov.uk/pdf/UK_Post2010_Bio-Fwork.pdf	
Description: Forms part of the UK Biodiversity Action Plan in order to address biodiversity loss and promote greater use of green infrastructure. Includes and acknowledges EU legislation as part of comabtting global loss of biodiversity. Promote better uses of resources as part of climate change and sustainability.	

Key objectives: • To address decline and loss of biodiversity. • Improve public awareness of biodiversity importance. • Support sustainable production use which does not infringe on biodiversity. • Maintain and restore ecosystems through the establishment of GI.	Implications for GI Study: • The GI Study will need to ensure that development is sustainable development that does not have a detrimental impact on biodiversity and related resources. • The GI study should support how development can enhance the value of biodiversity as part of development proposals. • Promote innovative uses of GI as part of development proposals, such as climate change mitigation and adaptation.

Regional Policy	
Title: Delivering Advantage The West Midlands Economic Strategy and Action Plan 2004-2010	
Source: Advantage West Midlands, West Midlands Regional Assembly; http://www.advantagewm.co.uk/wmes/articles/Images/west-midlands-economic-strategy_tcm15-7206.pdf	
Description: Guidance on the implementation of sustainable economic development across the West Midlands region between 2004 and 2010.	
Key Objectives: • Develop a diverse and dynamic business base across the West Midlands based around the creation of 10 'business clusters'. • Promote learning and skills across the region and in particular the six 'regeneration zones'. • By 2010 have the foundations for economic growth in place through improvements in transport infrastructure focused on pre-defined 'high technology corridors'. • By 2010 reduce levels of economic underperformance and social depravation. • Raise the status of the West Midlands in the international arena.	Implications for GI Study: • GI has the capacity to meet criteria listed in at least three of the five pillars which represent the foundation of the economic strategy outlined by the document. ○ Developing an environmental economy – creation of self-sustaining trusts with their own revenue streams which can support the local economy. ○ Developing the visitor economy – linking rural and urban recreational spaces and developing environmental assets. ○ Delivering good quality sites and buildings – Providing a framework through which monies can be effectively channelled to ensure that the environmental improvements will match any economic growth. ○ Sustainable use of natural resources – developing

	sustainable transport links, better cycle access routes for example. ○ Developing sustainable communities – creating public spaces with a sense of local ownership and reduced levels of crime.
Title: A Sustainable Future for the West Midlands Regional Sustainable Development Framework Version 2 (Jul 2006)	
Source: Sustainability West Midlands; http://www.wmra.gov.uk/download.asp?id=1191	
Description: Guidance document for developers and policy makers to ensure that the UK sustainable development strategy is delivered at the regional level.	
Key Objectives: • Sustainable consumption and production. • Reduce the Region's contribution to climate change and make provision for it's potential effects. • Protect natural resources and enhance the environment where ever possible. • Develop sustainable communities with emphasis on improving the Region's 'liveability'.	Implications for GI Study: • The GI Study should be aware that there is a requirement to improve cycle ways and footpaths in order to meet sustainable consumption targets, reduce the Region's carbon foot print and encourage healthier life styles. • The GI Study should make provision for the integration of sustainable draining systems (SUDS) would have the potential to reduce the increased flooding threat posed by global warming and restore valuable wetland habitats which have been lost in recent years. • The GI Study should aim to develop local environments which are cleaner, safer and more pleasant than those currently available.
Title: Landscapes for Living – a fifty year vision for rebuilding biodiversity in the West Midlands (revised 2008)	
Source: http://www.wmra.gov.uk/documents/Enhancing%20Biodiversity%20across%20the%20West%20Midlands%20Report%20-%20Agenda%20Item%2011%20-%20REP%2020%20June%2008.pdf	
Description: Regional guidance that sets out how local biodiversity mapping contributes to achieving national and regional policy objectives and statutory requirements to enhance biodiversity (such as the Natural Environment and Rural Communities Act 2006).	
Key Objectives: • To maintain and enhance biodiversity as part of delivering	Implications for GI Study: • The GI Study will need to ensure that development does not

<table>
<tr><td>sustainable development, contributing to health and wellbeing, benefit economic development and regeneration
• To restore biodiversity and relevant habitats and to mitigate against climate change.
• Complement government policy and relevant statutory requirements.</td><td>have a detrimental impact on biodiversity.
• How GI contributes to landscape character and local distinctiveness.
• The GI study should demonstrate how GI benefits local people in their local areas.</td></tr>
<tr><td></td><td></td></tr>
<tr><td colspan="2">Title: West Midlands Regional Assembly: Regional Green Infrastructure Prospectus</td></tr>
<tr><td colspan="2">Source: http://www.growingourfuture.org/wmwff/taskgroups/gip/prospectus.pdf</td></tr>
<tr><td colspan="2">Description: The document was commissioned by the Forestry Commission on behalf of the Assembly’s Regional Environment Partnership and is aimed at those responsible for regional, sub-regional and local planning policy. The Prospectus goes on to recommend the value of green infrastructure supported up by a series of case studies including the National Forest and Black Country Urban Park. The document also details how to incorporate GI into regional spatial plans and key challenges for the future including raising awareness, policy and investment programmes, and ensuring that sufficient funding is provided not only for the creation of green infrastructure but also for it’s long-term management.</td></tr>
<tr><td>Key Objectives:
• Ensure that individuals connected with planning understand the vital role green infrastructure has to play in shaping the future landscape.
• Encourage greater investment in, and improved management of, existing green infrastructure.
• To ensure green infrastructure is appreciated as an essential element of delivering sustainable communities, underpinning growth and regeneration.
• Promote a robust and systematic approach to green infrastructure assessment, planning and investment by local, sub-regional and regional planning authorities.
• Ensure green infrastructure is proactively planned from the earliest stages of strategic plan preparation through to concept and design stages of all future developments in the Region.</td><td>Implications for GI Study:
• The GI Study should ensure that green infrastructure is considered by planners at the local, regional and sub-regional level.
• The GI Study must emphasis the positive economic and social benefits GI can provide.</td></tr>
</table>

Local Policy	
Title: East Staffordshire Local Plan 2012-2031	
Source: http://www.eaststaffsbc.gov.uk/Planning/PlanningPolicy/LocalPlanCoreStrategy/Pages/default.aspx	
Decription: Form the Development Plan for the Borough. The Local Plan sets out detailed policies and strategic site proposals covering the Borough.	
Key Objectives: The Local Plan contains the following relevant strategic objectives: • **Flood Risk:** To plan for and reduce the impacts of climate change including ensuring that new development in settlements along our river corridors in particular are not exposed unnecessarily to the risk of flooding or increase the risk of flooding elsewhere, recognising the benefit of GI. • **Prudent use of resources:** To promote the prudent use of finite resources and the positive use of renewable resources, through the design, location and layout of development and by optimising the use of existing infrastructure. • **Countryside:** To protect, conserve and enhance the local countryside, character, distinctiveness and quality of the landscape and the diversity of wildlife and habitats.	Implications for GI Study: • The Local Plan should deliver the GI Strategy which is outlined in the GI study. The GI Study has therefore got the potential to help implement the Local Plan and the overall GI Strategy: Strategic Policy 1: Approach to Sustainable Development • GI study should be aware of GI's role in delivering sustainable development Strategic Policy 7: Sustrianble Urban Extensions • GI study should be aware GI's role as part of the development of Sustainable Urban Extensions and developing a network of green spaces. Strategic Policy 9: Infrastructure Delivery and Implementation • GI study should be aware of GI's role as part of wider infrastructure provision as well as linking with the Council's Infrastructure Delivery Plan. Strategic Policy 23: Green Infrastructure • The Local Plan makes direct references to this GI study therefore this study should be aware of the Local Plan's role of safeguarding the integrity of existing GI as well promoting it.

	Strategic Policy 24: High Quality Design • GI study should be aware of GI's role in promoting high quality design Strategic Policy 26: National Forest • GI study should be aware of how GI contributes to the National Forest, Greening Burton and the National Forest Strategy 2004-14. Strategic Policy 29: Biodivsersity and Geodiversity • GI study needs to be aware of how biodioveristy and geodiveristy contributes to GI. Strategic Policy 32: Outdoor Sports and Open Space Policy • GI study needs to be aware of open spaces as part of GI. Strategic Policy 34: Health and Wellbeing • GI study needs to be aware of GI's role as part of health, healthy lifestyles and wellbeing which the Local Plan promotes. Detailed Policy 9: Blue Infrastructure and water based recreation • GI study needs to be aware of the role of blue infrastructure as part of green infrastructure, including the role of the Central Rivers Initiative.
Title: East Staffordshire Local Plan 2006 (saved policies) (Jul 2006)	
Source: http://www.eaststaffsbc.gov.uk/documents/adoptedplan/EastStaffordshireLocalPlanJuly2006.pdf	
Description: This large document is one of the five plans which combine to form the Development Plan for the Borough. The Local Plan sets out detailed policies and site-specific proposals covering the Borough. Five core strategies ranging from sustainability to the National Forest underpin the Plan. The regeneration of Uttoxeter, expansion of the National Forest, and improved management of the	

<table>
<tr><td colspan="2">built environment, increasing employment levels, improving transportation and recreational facilities are noted as key aims by the Plan. The appendixes list the conservation areas across the Borough, and providing supporting maps indicating the areas, particularly in and around the two major towns which the Borough Council would wish to see re-developed and enhanced.</td></tr>
<tr><td>Key Objectives:
To meet the housing requirements of the population of the Borough including those with special needs.</td><td>Implications for GI Study:
The GI Study has the potential to help implement the Local Plan:
Urban and Rural Regeneration (CSP4)
The GI Study should be aware of the areas identified by the Urban Capacity Study as being suitable for regeneration.
The GI Study has an important role in providing an environment which is ‘appropriate’ for new development, through improved access route and enhancement of local ecological and historical assets.
Infrastructure and Community Provision (CSP5)
The GI Study should be aware that the Local Plan expects the developer to make provision for the increased burden development might have on the local, social, economic and ecological environment. This provision may provide a useful source of funds for the projects suggested by the GI Study.
Specific provision should include:
a) Contributing to the targets set by the Local Transport Plan
b) Assisting the expansion of the National Forest
c) Contributing to the targets set by the Community Strategy</td></tr>
</table>

	d) Proposals included in the Central Rivers Initiative (CRI) e) Assisting the Borough Council meet it's affordable housing targets f) Contributing towards regeneration schemes which include the provision of training for those who are unemployed, and lack key skills.
Title: East Staffordshire Local Strategic Partnership: Sustainable Community Strategy 2008-2020 (October 2010)	
Source: East Staffordshire Borough Council: http://www.eaststaffsbc.gov.uk/services/pages/sustainablecommunitystrategy.aspx	
Description: The strategy was produced by the East Staffordshire Local Strategic Partnership and outlines how local authorities will work with partner organisations to improve the economic, social and environmental 'well being' of the borough. The strategy was based upon a period of consolation involving more than a thousand people from across East Staffordshire.	
Key Objectives: • Ensure that all children and young people in East Staffordshire regardless of their background have the opportunity to achieve their full potential. • Make East Staffordshire a safer place in which to live and work. • Improve the physical and mental well being of people living in the Borough. • Create high quality urban centres. • Develop a diverse, flexible and strong economy built on a strong skills base. • Reduce carbon emissions and continuously improve the standard of public open spaces.	Implications for GI Study: • The GI Study should consider the green infrastructure currently available and take steps to ensure that these sites and access routes to them are safe. • The GI Study should provide examples of how GI can transform urban centres and lead to a reduction in crime, and suggest suitable projects for East Staffordshire. • The GI Study must be aware that projects should be planned which include local people in works which could have a direct positive impact on their physical and mental health. • The GI Study should take into account the need to suggest projects

	which have the smallest possible environmental impact, and can support a reduction in the Borough's carbon emissions overall.
Title: East Staffordshire: Economic Regeneration Strategy 2007-2012: Creating a sustainable future for all (Nov 2007)	
Source: East Staffordshire Borough Council; http://62.105.97.133/CMISWebPublic/Binary.ashx?Document=4287	
Description: The Strategy was created on behalf of key stakeholders, and sets out a framework for the future growth and prosperity of East Staffordshire. The framework is based upon a period of consultation identified by stakeholders on how best to sustain economic growth in the Borough. The document directly refers to green infrastructure and the advantages it can bring in terms of attracting new businesses and the retention of existing ones. The document also relates the key status of Burton-on-Trent as the 'Capital' of the National Forest.	
Key Objectives: • Create vibrant and modern urban centres with a high quality living and working environment. • Create a diverse, flexible and high growth economy. • Improve the skills base of potential employees across East Staffordshire. • Create a sustainable and diverse rural economy.	Implications for GI Study: • The GI Study should focus efforts on improving the quality of urban centres (Burton-on-Trent, Uttoxeter). This may be achieved through the incorporation of high quality public space into new residential developments. • The GI Study must consider how it can reduce traffic congestion around Burton-upon-Trent. • The Derby Road corridor has been identified as an area where improvements could be 'hugely beneficial'. The GI Study should consider the role GI could play in improving this corridor. • The GI Study should be aware that monies are being made available for improvements to Burton's historical

	monuments. • The GI Study should be aware that there is a requirement to improve cycle ways and footpaths in order to meet sustainable consumption targets, reduce the County's carbon foot print and encourage healthier life styles. • The GI study should be aware that East Staffordshire has a large number of historical and cultural assets which provide employment for more than 4000 people. The GI Study should provide a sustainable transport network through which more people can access these assets. • The GI Study should include projects which support adult learning, and widen the skills base across the borough. Close to 1/3rd of the people unemployed in East Staffordshire are recent school leaves, the GI Study might consider projects which provide training opportunities for school leavers. • The GI Study must take into account the desire to increase levels of tourism in rural areas tosupport the local economy.

<table>
<tr><td colspan="2">Title: East Staffordshire Housing Strategy 2009-2014</td></tr>
<tr><td colspan="2">Source: East Staffordshire Borough Council;
http://www.eaststaffsbc.gov.uk/Services/Housing%20Documents/Strategy/Housing%20strategy%202009-14.pdf</td></tr>
<tr><td colspan="2">Description: Strategy document which implements many of the targets outlined in the Borough's 'Sustainable Community Strategy' referred to above.</td></tr>
<tr><td>Key Objectives:
Widen housing choice for all residents and increase the supply of affordable housing in the Borough.
Improve housing and environmental conditions and tackle areas of deprivation in our communities.
Prevent homelessness and improve housing advice service.
Work in partnership with other agencies to provide appropriate accommodation and services that meet the diverse needs of vulnerable and elderly people.</td><td>Implications for GI Study:
The GI Study must consider how it can improve the quality of the 'built' environment across East Staffordshire.</td></tr>
<tr><td></td><td></td></tr>
<tr><td colspan="2">Title: Local Transport Plan for Staffordshire 2011</td></tr>
<tr><td colspan="2">Source: Local Transport Plan;
http://www.staffordshire.gov.uk/transport/transportplanning/localtransportplan/localtransportplan2011strategyplan.aspx</td></tr>
<tr><td colspan="2">Description: Document which outlines how the Local Highway Authority (Staffordshire Couty Council) plans to integrate all forms of surface transport across Staffordshire. The document supports the role of sustainable transport across the Borough.</td></tr>
<tr><td>Key Objectives:
To plan to meet the needs of existing Staffordshire residents without compromising the needs of future residents.
To preserve, diversity and enhance the County's economy through the stimulation of new investment, support for existing businesses and by undertaking specific regeneration projects.
To manage and improve the highway network of Staffordshire to provide for the safe and effective movement of people and goods, whilst protecting and enhancing the environment.road noise.
To create a sustainable transport environment for the County including changes in travel lifestyles and placing less reliance upon private motor car usage.</td><td>Implications for GI Study:
The GI Study should encourage the re-development and enhancement of urban areas, as urban settlements are more likely to offer the majority of the public's needs within walking, or cycling distance.
The GI Study should focus on how it can develop sustainable transport systems which reduce traffic congestion and improve air quality in the Borough's larger towns.
The GI Study should be aware that</td></tr>
</table>

	the plan recognises the value of landscaping as a tool to reduceroad design. • The GI Study must not consider the issues of air quality, traffic noise and climate change in isolation; GI plans should adopt a co-ordinated approach to solving these problems.
Title: East Staffordshire Integrated Transport Strategy 2013-2031	
Source: http://www.eaststaffsbc.gov.uk/Planning/PlanningPolicy/LocalPlanEvidenceBase/Pages/Infrastructure.aspx	
Description: prioritise the County Council's expenditure on transport improvements and secure potential resources including developer contributions and Government funds. They are also informing the District / Borough Council local plan process.	
Key Objectives: • To promote and enhance sustainable transport such as cycle routes and bus services as well as other sustainable transport initiatives. • Assesses impact of proposed development as prescribed in the Local Plan 2012-31 development strategy and identifying key congestion points and likely mitigation.	Implications for GI study: • The GI study should be aware of the strategy's aim in bringing about sustainable transport, such as cycling and walking linkages which may form part of GI. • The GI study should be aware of how transport enhancement schemes could contribute to the enhancement of GI.
Title: Central Rivers Partnership – Central Rivers Area Strategy Update (2008)	
Source: http://www.centralrivers.org.uk/index.php?option=com_phocadownload&view=category&id=13:central-rivers-initiative-strategy&Itemid=5	
Description: The document was drafted on the behalf of a local Partnership consisting of local authorities, statutory agencies, the mineral industry and voluntary organisations by an environmental consultancy called Entec. The Strategy discussed in the document covers 6,000 Ha of land lying between Burton-upon-Trent and Tamworth and focuses mostly on the corridors of the Rivers Tame and Trent. The Strategy identifies a 'core' area around the National Arboretum which it considers to be the main tourist hot spot. Besides the 'core' area,	

<table>
<tr><td colspan="2">Burton Washlands and Branston Water park are highlighted as potential ‘nodes’ capable of supporting a large number of visitors. Currently these areas contain areas of open space and woodlands but could be enhanced in future. The river corridor, which represents the ‘spine’ of the Study Area, is to be restored. The document goes onto mention other smaller areas which might be improved so as to give more people access to the river corridor. The document concludes by suggesting specific aims for each of the partners.</td></tr>
<tr><td>Key Objectives:
Regenerate the river corridor and improve it’s quality, in accordance with the Staffordshire landscape guidelines and the National Forest Strategy.
Make the National Memorial Arboretum an important local, regional and national tourist attraction.
Provide opportunities for diversification of farming incomes.
Consider the opportunities for providing facilities for water-based sports and active recreation in response to demand for these activities.
Increase the level of habitat provision in the Study Area (e.g. of wetlands, reedbeds and appropriate woodlands) and specifically to meet habitat and species action plan targets as included in local BAPs and create a network of habitat throughout the Study Area.
Fully utilise the natural resources of the Study Area to the benefit of the local community.
Prevent the sterilisation of available mineral resources.
Identify opportunities to create additional employment in the Study Area and to complement existing or future economic initiatives developed by the County and District Councils for the Study Area.</td><td>Implications for GI Study:
The GI Study must consider how it can improve access to the river corridor.
The GI Study should be aware that East Staffordshire Borough Council has an obligation to…’incorporate landscape works, improve access provision and carry out off-site enhancement’ along the river corridor wherever possible.
The GI Study must consider how it could contribute towards the enhancement of Branston Water Park, and Burton Washlands.
The GI Study must engage with local people and include them in the decision making process.
The GI Study should try to bridge the gap between planners and the farming community to produce a more integrated and diverse landscape.
Projects suggested by the GI Study should be self-sustaining.
The GI Study should monitor changes in national and local planning legislation and react positively to any changes.</td></tr>
</table>

<table>
<tr><td></td><td>

- The GI Study should make informed decisions based upon advice from interested bodies (e.g. Sports England).
- The GI Study should identify areas along the river corridor suitable for restoration.

</td></tr>
<tr><td></td><td></td></tr>
<tr><td colspan="2">Title: Staffordshire Biodiversity Action Plan (BAP) 3rd Edition</td></tr>
<tr><td colspan="2">Source: http://www.sbap.org.uk/actionplan/index.php</td></tr>
<tr><td colspan="2">Description: First edition of this document was produced in 1998 and the second edition in 2001. It outlines what they will be doing to protect and enhance habitats for healthier populations of plants and animal life across Staffordshire (251,000Ha) except for the area around Peak Park. Peak Park has it’s own BAP. It is based on the UK National Plan and the survey programme has identified a growing number of target species which merit
action. There are 57 SSSIs (8 geological) included under the BAP. Five other BAPs overlap with this one:
• Severn Trent Water BAP
• South Staffordshire Water BAP
• British Waterways BAP
• Peak Park BAP
• The National Forest BAP
The BAP also includes details of the 15 habitats which are in serious decline across the County. These range from wet woodlands to areas of reedbed and meadow. Within the BAP 17 species of animal including the nightjar and otter are listed, as are 5 species of invertebrate and 6 species of plant.</td></tr>
<tr><td>

Key Objectives:

- Maintain the existing important areas of habitat identified in the BAP.
- Restore degraded areas of habitat identified in the BAP by promoting appropriate management.
- Increase the amount of habitat identified in the BAP.
- Provide a sustainable environment for both the plant and animal communities which occur across Staffordshire.

</td><td>

Implications for the GI Study:

- The GI Study will need to ensure that development does not have a detrimental impact on biodiversity across Staffordshire.

</td></tr>
<tr><td></td><td></td></tr>
</table>

Title: The National Forest Biodiversity Action Plan (BAP) 3rd Edition (2011)	
Source: The National Forest Company; http://www.nationalforest.org/forest/nature/action/	
Description: The first edition of this document was published in 1998 and the second in 2004. It outlines what they will be doing to protect and enhance habitats for healthier populations of plants and animal life across the south-eastern part of Staffordshire, around Burton-on-Trent and into Derbyshire and Leicestershire (approx. 52,000Ha). It is based on the UK National Plan and the survey programme has identified a growing number of target species which merit action. 17 habitats are listed in the BAP with most showing a net increase in area since 1998. 2 plant species are listed, along with an invertebrate species (ruddy darter, dragonfly) and 6 vertebrate species including birds such as the barn owl and redstart.	
Key Objectives: • Maintain the existing important areas of habitat identified in the BAP. • Restore degraded areas of habitat identified in the BAP by promoting appropriate management. • Increase the amount of habitat identified by the BAP. • Provide a sustainable environment for both the plant and animal communities which occur across the National Forest.	Implications for the GI Study: • The GI Study will need to ensure that development does not have a detrimental impact on biodiversity across the National Forest.
Title: Outdoor Sport Delivery & investment Plan (June 2013)	
Source: http://www.eaststaffsbc.gov.uk/Planning/PlanningPolicy/LocalPlanEvidenceBase/Pages/HealthandWellBeing.aspx	
Description: This Plan for East Staffordshire sets out a strategic framework for the development of outdoor sports facilities set in the context of the Council's overarching strategic priorities and those of key partners and provides suggestions for potential sources of funding.	
Key objectives: • To plan outdoor sport delivery and investment as part of the Council's Strategic Priorities and in light of growth as part of the Local Plan 2012-31 in terms of likely demand.	Implications for the GI Study: • The GI Study will need to ensure that outdoor sports facilities contribute to wider GI.
Title: East Staffordshire Borough Council: Statement of Community Involvement (September 2013)	
Source: East Staffordshire Borough Council; http://www.eaststaffsbc.gov.uk/Planning/PlanningPolicy/LocalPlanCoreStrategy/Pages/default.aspx	
Description: This document updates the original SCI that was adopted in 2007. The document outlines how the Borough council will include members of the local community and relevant stakeholders in the preparation, review and discussion of local planning policies as	

part of the Local Plan 2012-31 and planning applications.	
Key Objectives: • Refine the way in which local people, and consultees are included in the planning process.	Implications for GI Study: • The GI study will need to be flexible in how it communicates with local people, and interested parties (wildlife trusts, statutory bodies etc).

Appendix 2: SSSI Notification Details

COUNTY: STAFFORDSHIRE SITE NAME: BLITHFIELD RESERVOIR

DISTRICT: East Staffordshire SITE REF: 15WCY

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981 as amended

Local Planning Authority: STAFFORDSHIRE COUNTY COUNCIL, East Staffordshire District Council

National Grid Reference: SK 057242 Area: 435.6 (ha.) 1076.4 (ac.)

Ordnance Survey Sheet 1:50,000: 128 1:10,000 SK 02 SE, SW, NE, NW

Date Notified (Under 1949 Act): 1968 Date of Last Revision: 1968

Date Notified (Under 1981 Act): 1987 Date of Last Revision: –

Other Information:
Site boundary alteration (extension & reduction).

Description and Reasons for Notification:
Blithfield Reservoir is Staffordshire's largest area of standing water, situated in the valley of the River Blithe, between Stafford and Burton-upon-Trent. The site is nationally important for goosander Mergus merganser, regularly supporting more than 1% of the total British wintering population. The peak wintering waterfowl numbers exceed those for all other Staffordshire water bodies and are second only to Rutland Water, Leicestershire for inland waters in the Midlands. Furthermore, the reservoir and its woodland and farmland surroundings is an important wintering locality for an outstanding variety of birds.

Open water forms the majority of the site and is mostly bordered by a narrow, grazed perimeter. North of the causeway the two long, shallow reservoir arms and their adjacent habitats are the most ecologically diverse and ornithologically rich areas, providing food, shelter and breeding sites for many species. Seasonal fluctuations in water levels have given rise locally to an inundation community with plants such as golden dock Rumex maritimus, orange foxtail Alopecurus aequalis and trifid bur-marigold Bidens tripartita. Occasionally, flats of mud are exposed by drawdown and can attract large numbers of autumn passage wading birds e.g. dunlin Calidris alpina, ringed plover Charadrius hiaticula and curlew Numenius arquata. At such times the value of the reservoir is enhanced as an inland, migratory stop-over point. The western arm shallows grade into an extensive swamp of reed canary-grass Phalaris arundinacea, lesser pond-sedge Carex acutiformis and reed sweet-grass Glyceria maxima, with scattered, developing carr of grey willow Salix cinerea. This represents one of the largest examples of this habitat type in the county. The wetland gives way to marshy, semi-improved pasture with much soft rush Juncus effusus, a favoured area for grey herons Ardea cinerea from the nearby Bagot's wood heronry.Marginal emergent vegetation is best represented along the east side of the eastern arm but
is otherwise very restricted by grazing.

Certain of the grass fields adjoining the reservoir are grazed by regionally significant numbers of wigeon Anas penelope, a duck which, in inland situations, largely depends on agricultural land for its winter food supply. The woodlands exhibit a varied structure and composition attractive to breeding warblers, tits, finches, thrushes and woodpeckers. They also help to shelter the water areas and screen waterbirds from visual disturbance.

Twenty-one species of waterfowl regularly use the site in winter. These include great crested grebe Podiceps cristatus, pochard Aythya ferina, pintail Anas acuta, Bewick' s swan Cygnus bewickii and white-fronted goose Anser albifrons albifrons. Others occur sporadically such as great northern diver Gavia immer and smew Mergus albellus. The sizeable wintering population of cormorants

Phalacrocorax carbo at Blithfield has increased over the last two decades, in parallel with a national trend of inland wintering for this species. The concentration of wintering and passage birds attracts predatory species such as peregrine Falco peregrinus and merlin Falco columbarius, whilst ospreys Pandion haliaetus are regular visitors on migration.

COUNTY: STAFFORDSHIRE SITE NAME: BRAKEN HURST

DISTRICT: East Staffordshire SITE REF: 15WCZ

Status: Site of Special Scientific Interest (SSSI) notified (Under Section 28 of the Wildlife and Countryside Act) 1981.

Local Planning Authority: STAFFORDSHIRE COUNTY COUNCIL, East Staffordshire District Council

National Grid Ref: SK 137222 Area: 25.9 (ha.) 64.0 (ac.)

Ordnance Survey Sheet 1:50,000: 128 1:10,000: SK 12 SW

Date Notified (Under 1949 Act): 1968 Date of Last Revision: 1968

Date Notified (Under 1981 Act): 1986 Date of Last Revision: –

Other Information:
Site boundary alteration (extension & reduction).

Description and Reasons for Notification:
Braken Hurst is one of the largest, least-altered remnants of the once extensive plateau woodlands and wood pastures of the former Crown Forest of Needwood. The full range of types of semi-natural woodland occurring in the locality is represented in a variety of stands including former coppice, wood pasture relics and broadleaved high forest. The site shows evidence for a largely continuous history of woodland cover since at least the Middle Ages. The spatial proximity of stands of different management histories, the variety of soil types and the presence of mature and over-mature timber over a long period are features of intrinsic interest which together sustain a characteristic and diverse flora and fauna; this includes several rare plants and a notable assemblage of moths and butterflies.

Woodland composition reflects the differences in soil and drainage conditions. The major woodland type is hazel-pedunculate oakwood Corylus avellana – Quercus robur on acid boulder clay with similar stands, largely of sessile oak Quercus petraea, on lighter soils. Both oakwood canopies typically contain silver and downy birches Betula pendula and Betula pubescens over an understory of hazel, hawthorn Crataegus monogyna, holly Ilex aquifolium, dog rose Rosa canina and honeysuckle Lonicera periclymenum. The field layer largely consists of bramble Rubus fruticosus and bracken Pteridium aquilinum with abundant bluebell Hyacinthoides non-scripta and creeping soft-grass Holus mollis. Other common herbs include wood sorrel Oxalis acetosella, yellow pimpernel Lysimachia nemorum, enchanter's nightshade Circaea lutetiana and broad buckler-fern Dryopteris dilatata.

On acidic, better-drained sands and gravels a birch-sessile oak woodland occurs with an open, mature canopy and old pollarded hollies, a structure arising from the practice of wood-pasturage. This stand represents a fragment of the widespread 17th century landscape of common grazings. The hollies support a strong colony of the holly blue butterfly Celastrina argiolus.

The high forest oakwood of Hawk Hills and Slade Covert is believed to originate through planting and natural regeneration on an ancient, but largely deforested woodland site subject to a long history of grazing. Ash Fraxinus excelsior and wych elm Ulmus glabra are common constituents and locally give rise to distinct stands, however sycamore Acer pseudoplatanus is a vigorous colonist.

The flood plain of the river Swarbourn contains an excellent example of valley alderwood on wet alkaline soils derived from the Keuper Marl. Alder Alnus glutinosa, as coppice and

standards, occurs in mixture with ash, pedunculate oak, hazel and shrubs of lesser frequency such as grey willow Salix cinerea, guelder rose Viburnum opulus, field maple Acer campestre and buckthorn Rhamnus catharticus. Tufted hair grass Deschampsia cespitosa and dog's mercury Mercurialis perennis are dominant in the field layer whilst the wettest, peaty or flushed situations are botanically very rich with hemp-agrimony Eupatorium cannabinum, meadowsweet Filipendula ulmaria, opposite-leaved golden- saxifrage Chrysosplenium oppositifolium and ramsons Allium ursinum.

The valley flanks and the oak parkland at Round Hill have a few standards of small-leaved lime Tilia cordata. These may represent a vestige of a pedunculate oak-limewood type otherwise lost from Needwood Forest.

The mixed scrub and glades of the 'pylon ride' is attractive to birds and invertebrates and holds a population of wood spurge Euphorbia amygdaloides at one of its few Staffordshire locations.

Some of the more notable moths recorded are argent and sable Rheumaptera hastata, blomers rivulet Discoloxia blomeri and the ruddy highflier Hydriomena ruberata.

Several rare species of beetle are associated with the mature oaks.

NOTIFICATION DATE: 17 APRIL 1986

COUNTY: STAFFORDSHIRE SITE NAME: FOREST BANKS

DISTRICT: East Staffordshire SITE REF: 15WDM

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981 as amended

Local Planning Authority: STAFFORDSHIRE COUNTY COUNCIL, East Staffordshire District Council

National Grid Ref: SK 120284 Area: 45.6 (ha.) 112.7 (ac.)

Ordnance Survey Sheet 1:50,000: 128 1:10,000: SK 12 NW

Date Notified (Under 1949 Act): 1968 Date of Last Revision: 1968

Date Notified (Under 1981 Act): 1986 Date of Last Revision: Ð

Other Information:
Site boundary alteration (extension & reduction).

Description and Reasons for Notification:
Forest Banks consists of three of the least modified and most diverse sections of what remains of the scarp woodlands of the former Royal Forest of Needwood. Elsewhere along the scarp the woods have been largely replaced with plantations. The site occupies a steep north facing escarpment and part of the adjacent plateau and is dissected by a number of steep sided valleys. The varied topography and soils give rise to a number of types of semi-natural woodland, certain of which are very uncommon in Staffordshire, being geographically restricted and having declined both locally and nationally in recent years. Together with the nearby Brakenhurst SSSI, the locality supports an outstanding assemblage of moths and butterflies.

The ill-drained, acidic boulder clay of the plateau has uneven aged stands of birch Betula spp., pedunculate oak Quercus robur and sessile oak Quercus petraea with scattered mature chestnut Castanea sativa. Holly Ilex aquifolium and rowan Sorbus aucuparia are frequent in the understorey. The species poor ground vegetation which has been grazed in the past is largely composed of bracken Pteridium aquilinum, creeping soft-grass Holcus mollis, wavy hair-grass Deschampsia flexuosa and honeysuckle Lonicera periclymenum.

On the scarp where calcareous and base rich Keuper Marls outcrop there is an abrupt transition to mixed broadleaf woodland. Ash Fraxinus excelsior, pedunculate oak, wych elm Ulmus glabra (now only present as young growth) and lime Tilia spp. are the most abundant trees, with frequent wild service-tree Sorbus torminalis and locally invading sycamore Acer pseudoplatanus. Forest Banks is the only Staffordshire location where small and large-leaved lime Tilia cordata and T. platyphyllos are known to occur together. The presence of the latter species in association with ash and wych elm shows an affinity with the limewoods of the Magnesian limestone in central and northern England. Locally, the presence of field maple Acer campestre and absence of elm indicates lowland maple-ash-limewood stand type, here with shrubs such as dogwood

Cornus sanguinea, crab apple Malus sylvestris and spindle Euonymus europaeus. Hazel Corylus avellana, occurs commonly across the scarp.

At the base of the slope and in the valley bottoms alder Alnus glutinosa is prominent, and a further type of alderwood occurs around poorly-drained depressions on the plateau. A few specimens of hornbeam Carpinus betulus are present on Buttermilk Hill with small-leaved lime coppice. This is thought to be one of the few localities for native hornbeam in the Midlands.

The ground flora of the escarpment woodland exhibits a range of plant communities with considerable variation in individual species abundance. Differences in surface drainage, soil chemistry and canopy shade are the main factors responsible. Bramble Rubus fruticosus, dogs mercury Mercurialis perennis, bluebell Hyacinthoides non-scripta, false brome Brachypodium sylvaticum, wood anemone nemorosa and ferns Dryopteris spp. are some of the commoner plants. Less frequent, but widespread species include woodruff Gallium odoratum, yellow archangel Lamiastrum galeobdolon and early-purple orchid Orchis mascula. In wetter situations in valley bottoms is a characteristically lush flora including meadowsweet Filipendula ulmaria, opposite-leaved golden-saxifrage Chrysosplenium oppositifolium, ramsons Allium ursinum and great willow herb Epilobium hirsutum, often accompanied by the rare thin-spiked wood-sedge Carex strigosa. These places are also important habitats for many mosses and liverworts.

Several other Staffordshire rarities are present such as toothwort Lathraea aquamaria and oak fern Gymnocarpium dryopteris and here, in relative abundance, spurge laurel Daphne laureola and soft shield fern Polystichum setiferum.

The woodland Lepidoptera include more than 20 notable species, including the scorched wing Plagodis dolabraria, and the waved umber Menophra abruptaria.

COUNTY: STAFFORDSHIRE SITE NAME: GOAT LODGE

DISTRICT: East Staffordshire SITE REF: 15WGW

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981, as amended

Local Planning Authority: STAFFORDSHIRE COUNTY COUNCIL, East Staffordshire District Council

National Grid Reference: SK 084265 Area: 12.02 (ha.) 29.70 (ac.)

Ordnance Survey Sheet 1:50,000: 128 1:10,000: SK 02 NE

Date Notified (Under 1949 Act): Ð Date of Last Revision: Ð

Date Notified (Under 1981 Act): 1991 Date of Last Revision: Ð

Other Information:
New site.
Part of a larger woodland managed as a private nature reserve.

Description and Reasons for Notification:

Goat Lodge comprises the only part of the once extensive Bagot Forest that has not been planted with conifers, and a meadow thought to be a former deer lawn within the forest which is notable for its population of wild daffodils (Narcissus pseudonarcissus).

The woodland consists of an even-aged stand of pedunculate oak (Quercus robur) and sessile oak (Q. petraea) with occasional silver birch (Betula pendula) and alder (Alnus glutinosa). It is primarily of interest for the heronry, but provides a refuge for a range of oak woodland flora and fauna in a locality where extensive reforestation with conifers has occurred.

The heronry is the largest in the county, supporting a nationally important concentration of breeding grey herons (Ardea cinerea).

The adjoining grassland is of some antiquity as evidenced by the vigorous population of wild daffodil. This locally rare plant has declined nationally through the cultivation of old grassland. The present practice of late hay cutting and aftermath grazing favours this species and other spring flowers.

COUNTY: DERBYSHIRE/STAFFORDSHIRE SITE NAME: OLD RIVER DOVE, MARSTON ON DOVE

DISTRICT: SOUTH DERBYSHIRE/ SITE REF: 15 WEE

Site: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981 as amended.

Local Planning Authority: Derbyshire County Council, Staffordshire County Council,
South Derbyshire District Council,
East Staffordshire District Council

National Grid Reference: SK 238285 Area: 1.8 (ha.) 4.4 (ac.)

Ordnance Survey Sheet 1:50,000: 128 1:10,000: SK 22 NW

Date Notified (Under 1949 Act): 1981 Date of Last Revision: 1981

Date Notified (Under 1981 Act): 1986 Date of Last Revision: –

Other Information:
Site boundary modified (reduction).

Description:
The site lies to the south of the village of Marston-on-Dove. It is a meander cut off from the present course of the river. It is a locally important site for aquatic fauna and flora. The open water is surrounded by a band of tall mixed fen and swamp communities locally dominated by reed canary-grass Phalaris arundinacea. The drier fen communities include common marsh-bedstraw Gallium palustre and water figwort Scrophularia auriculata. Branched bur-reed Sporangium erectum dominates much of the wetter swamp community where water horsetail Equisetum fluviatile, common spike-rush Eleocharis palustris and water-plantain Alisma plantago-aquatica are locally abundant. Of particular interest is a large colony of flowering-rush Butomus umbellatus.

Abundant yellow water-lily Nuphar lutea grows in the open water. This species has become less common in the county although small populations are still widespread. Also present are white water-lily Nymphaea alba and unbranched bur-reed Sporangium emersum. In places the banks have a dense band of old alder Alnus glutinosa and grey willow Salix cinerea with a number of mature ash Fraxinus excelsior. In the central section there are only scattered trees and bushes and the water is unshaded, consequently a range of shaded and open conditions exist along the length of the meander. Eight species of dragonfly have been recorded from this site which makes this one of the best sites for dragonflies in Derbyshire.

COUNTY: STAFFORDSHIRE SITE NAME: STANTON PASTURES AND CUCKOOCLIFF VALLEY

DISTRICT: STAFFORDSHIRE MOORLANDS, EAST STAFFORDSHIRE

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981 as amended

Local Planning Authority: STAFFORDSHIRE COUNTY COUNCIL, Staffordshire Moorlands District Council, East Staffordshire District Council

National Grid Reference: SK 128473 Area: 108.90 (ha.) 268.98 (ac.)

Ordnance Survey Sheets 1:50,000: 119 1:10,000: SK 14 NW

Date Notified (Under 1949 Act): 1951 Date of Last Revision: 1968

Date Notified (Under 1981 Act): 1987 Date of Last Revision: 7 January 1999

Description and Reasons for Notification:
Stanton Pastures and Cuckoocliff Valley is an extensive area of unimproved grassland, heathland and deciduous woodland situated between the Weaver Hills and the Dove Valley in north east Staffordshire. Lying astride the junction between Carboniferous limestones and acid Triassic sandstones, the site is notable for its size, diversity of habitats, range of grassland communities and floristic richness.

Neutral grasslands, which occupy the greater part of the site, and the majority of the acidic grasslands, have developed on soils derived from mudstones, siltstones and sandstones of the Lower Carboniferous. Calcareous grassland is located on outcrops of Ecton and Milldale Limestones, again of the Lower Carboniferous, in the valley of the Ellishill Brook and to the north of Thorswood Plantation. As well as these differences in soil chemistry, drainage characteristics vary considerably across the site, resulting in grassland communities which range from marshy through to dry and free-draining. There are also areas of localised flushing. The variation in soil chemistry and moisture content has given rise to both gradual and sharp transitions between the different grassland types. Plants typically found in separate communities occur here in combination.

The neutral grasslands are mostly of two types and their intermediate form. Where soils are permanently moist, a coarse grassland prevails, characterised by Yorkshire-fog Holcus lanatus, tufted hair-grass Deschampsia cespitosa and rushes Juncus spp. On drier ground there is a shorter, herb-rich sward with many grasses, including red fescue Festuca rubra, crested dogs-tail Cynosures cristatus, common bent Agrostis capillaris, sweet vernal-grass Anthoxanthum odoratum, quaking-grass Briza media and heath grass Danthonia decumbens. Some of the more abundant herbs include common birds-foot trefoil Lotuscorniculatus, common knapweed Centaurea nigra, oxeye daisy Leucanthemum vulgare,betony Stachys officinalis, tormentil Potentilla erecta and devils-bit scabious Succisa pratensis. Other species found in this community that are rare or uncommon in Staffordshire include adders-tongue Ophioglossum vulgatum, moonwort Botrychium lunaria, greater butterfly orchid Platanthera chlorantha and pepper-saxifrage Silaum silaus. On gently sloping ground with surface water flushing there is a further community characterised by purple moor-grass Molinia caerulea and sedges, especially carnation sedge Carex panicea. Many county rarities occur in these situations such as meadow

thistle Cirsium dissectum, creeping willow Salix repens, saw-wort Serratula tinctoria, and fragrant orchid Gymnadenia conopsea.

On the highest ground to the west of Bullgap Lane, there is an area of acidic grassland and wet heath. Typical species include sheep's-fescue Festuca ovina, wavy hair-grass Deschampsia flexuosa and mat-grass Nardus stricta with ericaceous shrubs such as heather Calluna vulgaris, bell heather Erica cinerea, cross-leaved heath E. tetralix and bilberry Vaccinium myrtillus. Below this acidic grassland and wet heath community there are several acidic flushes characterised by tightly grazed sedge lawns which include carnation sedge, tawny sedge C. hostia and common yellow sedge C. demissa. Other species which occur in these flushes are common butterwort Pinguicula vulgaris, grass-of-Parnassus Parnassia palustris and lousewort Pedicularis sylvatica all of which are rare or uncommon in the County.

Heathland is best developed on the Triassic sandstone outcrops of Brown Edge and Blake Low. Here, heather and wavy hair-grass dominate with lesser amounts of bilberry and cowberry V. vitis-idaea. Where drainage is impeded, a thin peat layer supports wet heath vegetation with cross-leaved heath and purple moor-grass. A few small acidic flushes sustain bog mosses Sphagnum spp. and other specialised plants of nutrient deficient soils, including round-leaved sundew Drosera rotundifolia.

To the north of Thorswood Plantation, the soils are thin and free-draining over limestone. The vegetation is grass-dominated and species-poor with areas of western gorse Ulex gallii, but two species that are rare in Staffordshire, moonwort and mountain pansy Viola lutea, are frequent. There are also a number of spoil heaps in this area, the result of former mineral workings. Here, the limestone influence is much greater and the tightly grazed sward is herb-dominated and includes species which are rare or uncommon in the County such as autumn gentian Gentianella amarella, salad burnet Sanguisorba minor, crested hair-grass Koeleria macrantha and small scabious Scabiosa columbaria.

The ancient woodland in the valley of Ellishill Brook is of mixed composition due to the complex soil patterns. It varies from ash Ð wych elm Fraxinus excelsior Ð Ulmus glabra woodland on limestone, with field maple Acer campestre and hazel Corylus avellana, to oak Ð birch Quercus robur Ð Betula pendula woodland on sandstone, with holly Ilex aquifolium and rowan Sorbus aucuparia. The diverse shrub and ground layers include a number of uncommon species for example wood vetch Vicia sylvatica, toothwort Lathraea squamaria, soft shield-fern Polystichum setiferum and giant bellflower Campanula latifolia. Nans Wood is oak dominated with ash, hazel and rowan, but it is also extensively flushed and alder Alnus glutinosa is abundant. These flushed communities support water avers Geum rivale which is locally uncommon and marsh hawks-beard Crepis paludosa, a rare species in Staffordshire and at the south-eastern limit of its range in Britain.

To the west of Bullgap Lane there are two ponds which support a range of aquatic and marginal vegetation including broad-leaved pondweed Potamogeton natans, bottle sedge Carex rostrata and branched bur-reed Sporangium erectum. The northernmost pond also supports whorl grass Catabrosa aquatica and bogbean Menyanthes trifoliata, both of which are rare in Staffordshire.

Appendix 3: Baseline Data Analysis

Ranking Score	Inherent value (Nodes only)	Multi-functionality	Connectivity (Corridors only)	Accessibility
3 (high)	International or nationally important	GI asset relates to > 4 GI study themes	Connects to at least 1 major or 3 minor nodes and 1 town	All-ability access with public facilities
2 (medium)	At best, regionally important	GI asset relates to 2 - 4 GI study themes	Provides connectivity for wildlife and people	Unlimited public access
1 (low)	At best, locally important	GI asset relates to <2 GI study themes	Provides connectivity for wildlife or people	Limited or no public access

Total Score	Green Infrastructure Status
3-5	Asset does not qualify as green infrastructure feature
6-7	Asset qualifies as minor green infrastructure feature
8-9	Asset qualifies as major green infrastructure feature

Existing GI Asset	Node or Corridor	Inherent value	Multi-functionality	Connectivity	Accessibility	Score	Major GI Node	Minor GI Node	Major GI Corridor	Minor GI Corridor	Not a GI Feature
Burton-Upon-Trent											
Parks, Recreation Grounds and Play Areas											
Stapenhill Cemetery Registered Park and Garden	N	3	2		2	7		✓			
Scalpcliffe Hill Local Nature Reserve	N	2	2		2	6		✓			
Clay's Lane Recreation Ground	N	1	2		2	5					✓
Lonsdale Recreation Ground	N	1	1		2	4					✓
Heath Road Community Park	N	1	2		3	6		✓			
Anglesey Community Park	N	1	2		3	6		✓			
Eton Community Park	N	1	2		2	5					✓
Horninglow Community Park	N	1	1		2	4					✓

Existing GI Asset	Node or Corridor	Inherent value	Multi-functionality	Connectivity	Accessibility	Score	Major GI Node	Minor GI Node	Major GI Corridor	Minor GI Corridor	Not a GI Feature
Land to south of Anglesey Community Park	N	1	2		1	4					✓
Shipley Close Play Area	N	1	1		2	4					✓
Canterbury Road Play Area	N	1	1		3	5					✓
Higgot Close Play Area	N	1	1		2	4					✓
Nicklaus Close Play Area	N	1	1		2	4					✓
Mellor Road Play Area	N	1	1		2	4					✓
Torrance Close Play Area	N	1	2		2	5					✓
Fairham Avenue Open Space	N	1	1		3	4					✓

Existing GI Asset	Node or Corridor	Inherent value	Multi-functionality	Connectivity	Accessibility	Score	Major GI Node	Minor GI Node	Major GI Corridor	Minor GI Corridor	Not a GI Feature
Athlestan Way Open Space	N	1	2		2	5					✓
Princess Way Open Space A	N	2	2		2	6		✓			
Princess Way Open Space B	N	2	2		2	6		✓			
Suffolk Road Island	N	1	2		2	5					✓
Land off Lynwood Road	N	1	3		2	6		✓			
Beans Covert	N	2	3		2	7		✓			
The Memorial Gardens	N	1	2		2	5					✓
Stapenhill Cemetery	N	3	2		2	7		✓			
Land off Beaufort Road	N	1	2		2	5					✓

Existing GI Asset	Node or Corridor	Inherent value	Multi-functionality	Connectivity	Accessibility	Score	Major GI Node	Minor GI Node	Major GI Corridor	Minor GI Corridor	Not a GI Feature
Land off Vancouver Drive	N	1	1		2	4					✓
Bitham Claypits	N	2	3		2	7		✓			
Stretton Balancing Pond	N	1	2		2	5					✓
Uxbridge Gardens	N	1	2		2	5					✓
The Brickyards	N	2	3		2	6		✓			
Edgehill Community Park	N	1	2		3	6		✓			
Cumberland Road Play Area	N	1	1		2	4					✓
Waterside Open Space	N	1	2		2	5					✓
Blackpool Street Recreation Ground	N	1	1		2	4					✓
The Toadhole	N	1	3		2	6		✓			
The Washlands	N	2	3		2	7		✓			
Remembrance Gardens	N	1	2		2	5					✓
The Broadholme	N	1	2		2	5					✓
Redhill/Redhill Woodlands	N	1	3		2	6		✓			

Existing GI Asset	Node or Corridor	Inherent value	Multi-functionality	Connectivity	Accessibility	Score	Major GI Node	Minor GI Node	Major GI Corridor	Minor GI Corridor	Not a GI Feature
The Washlands – Stapenhill Hollows	N	1	3		2	6		✓			
Land off Carpenter Close	N	1	2		2	5					✓
Newton Road Park	N	1	3		3	7		✓			
Wetmore Community Park	N	1	2		2	5					✓
Westbury Homes Site Play Area	N	1	1		2	4					✓
Hillfield Lane Recreation Ground	N	1	2		3	6		✓			
Bitham Lane Recreation Ground	N	1	1		2	4					✓
Craythorne Road Playing Fields	N	1	1		2	4					✓
Craythorne Woods	N	1	3		2	6		✓			
Elizabeth Avenue Recreation Ground	N	1	2		2	5					✓
Brook Hollows Spinney BAS	N	2	3		2	7		✓			
Carver Road Open Space	N	1	2		2	5					✓
Forest Road Open Space	N	1	2		2	5					✓
Shobnall Fields Leisure Complex	N	1	2		3	6		✓			

Existing GI Asset	Node or Corridor	Inherent value	Multi-functionality	Connectivity	Accessibility	Score	Major GI Node	Minor GI Node	Major GI Corridor	Minor GI Corridor	Not a GI Feature
Percy's Grove	N	1	3		2	6		✓			
Outwoods Park	N	1	2		2	5					✓
Outwooods Park Extension	N	1	2		2	5					✓
Oak Wood (ancient semi-natural woodland)	N	2	3		2	7		✓			
Wheatley Lane Recreation Ground	N	1	3		2	5					✓
Branston Water Park	N	2	3		3	8	✓				
Rolleston Cemetery	N	1	2		2	5					✓
The Jinny Trail	C	1	3	2		6				✓	
Station Walk	C	1	3		2	6				✓	
Claymills Pool	N	2	3		2	7		✓			
Stretton Woodlands	N	1	3		2	6		✓			
Burton Mail Centenary Woodland	N	1	3		3	7		✓			
Battlestead Wood	N	2	3		2	7		✓			
The Croft	N	1	2		2	5					✓
Mill Hill Lane Play Area	N	1	2		2	5					✓
St Modwens Churchyard	N	1	2		2	5					✓
Land South of Anglesey Community Park	N	1	2		2	5					✓

Existing GI Asset	Node or Corridor	Inherent value	Multi-functionality	Connectivity	Accessibility	Score	Major GI Node	Minor GI Node	Major GI Corridor	Minor GI Corridor	Not a GI Feature
Grazing Land off Watson Street	N	2	2		2	6		✓			
Upper Mills Farm	N	2	2		2	6		✓			
Bass Meadow Forest Tender Scheme	N	2	3		3	8	✓				
Meadow View Play Area	N	1	2		2	5					✓
Horninglow Linear Park	C		2	2	2	6				✓	
Weston Park Avenue (Linear Park Extension)	C		2	2	2	6				✓	
Tower Woods (National Forest)	N	1	3		3	7		✓			
Woodland											
Scalpley Wood (ancient semi-natural woodland)	N	2	3		2	7		✓			
Oak Wood (ancient semi-natural woodland)	N	2	3		2	7		✓			
Tower Woods	N	1	3		3	7		✓			
Bendoaks School	N	1	2		1	4					✓
Carlsberg Tetley	N	1	2		2	5					✓

Existing GI Asset	Node or Corridor	Inherent value	Multi-functionality	Connectivity	Accessibility	Score	Major GI Node	Minor GI Node	Major GI Corridor	Minor GI Corridor	Not a GI Feature
Landsdowne Infants School	N	1	2		1	4					✓
Eton Road Community Park	N	1	2		2	5					✓
Bitham Clay Pits	N	1	3		2	6		✓			
Eton Forest Gateway	N	1	3		2	6		✓			
Roadsides East Staffs	N	1	2		1	4					✓
Moor Street Bridge, Burton	N	1	2		1	4					✓
Centrum 100	N	1	2		1	4					✓
Branston Housing	N	1	3		2	6		✓			
Hundred Acre Wood (Waterside School)	N	1	2		1	4					✓
Hundred Acre Wood (Lamley)	N	1	2		1	4					✓
Hundred Acre Wood (Paulet High School)	N	1	2		1	4					✓
Centrum 100 Phase 6	N	1	2		1	4					✓
Stapenhill Landscaping	N	1	2		1	4					✓
William Davis Landscaping	N	1	2		1	4					✓
Stretton Canalside	N	1	3		2	6		✓			
Wellington Road	N	1	2		1	4					✓

Existing GI Asset	Node or Corridor	Inherent value	Multi-functionality	Connectivity	Accessibility	Score	Major GI Node	Minor GI Node	Major GI Corridor	Minor GI Corridor	Not a GI Feature
Centrum 100 Phase 5	N	1	2		1	4					✓
A38 roadside & Branston roundabout	N	1	2		1	4					✓
Abbot Beyne School	N	1	2		1	4					✓
Newton Road Park	N	1	3		2	6		✓			
Dalebrook	N	1	3		2	6		✓			
Branston Golf and Country Club	N	1	2		1	4					✓
Branston Water Park	N	2	3		3	8	✓				
Lawn's Farm	N	1	3		2	6		✓			
Burton Floodplain Woodland	N	1	3		2	6		✓			
Shobnall Playing Fields	N	1	3		2	6		✓			
St Modwen's School	N	1	2		1	4					✓
Belvedere Junior School	N	1	2		1	4					✓
Percy's Grove	N	1	3		2	6		✓			
Badger Wood	N	1	3		2	6		✓			
Battlestead Hill	N	1	3		2	6		✓			
Byrkley Chalet Scout Site	N	1	2		1	4					✓
Red Hill Woodlands	N	1	3		2	6		✓			
Stoney's Wood	N	1	3		2	6		✓			

Existing GI Asset	Node or Corridor	Inherent value	Multi-functionality	Connectivity	Accessibility	Score	Major GI Node	Minor GI Node	Major GI Corridor	Minor GI Corridor	Not a GI Feature
Forest Dell, Grafton Road, Brizlincote Valley	N	1	3		2	6		✓			
Bass Meadow	N	1	3		2	6		✓			
Easthill Wood	N	1	3		2	6		✓			
Pool Green & Easthill (Phase 2)	N	1	3		2	6		✓			
ESBC River Trent	N	1	3		2	6		✓			
LS Branston Golf Club/Mill Farm	N	1	2		1	4					✓
Branston Golf Club	N	1	2		1	4					✓
Nadins 1	N	1	2		1	4					✓
Tatenhill Housing	N	1	3		2	6		✓			
Bretby Crematorium	N	1	3		2	6		✓			
Tatenhill Roadside	N	1	2		1	4					✓
Jeffs Wood	N	1	3		2	6		✓			
Bank House Farm	N	1	2		1	4					✓
Sinai Park Woodland	N	1	3		2	6		✓			
Upper Mills Farm 1	N	1	3		2	6		✓			
Manor Farm	N	1	3		2	6		✓			
Consortium Wood	N	1	3		2	6		✓			
Drakelow Roadside	N	1	2		1	4					✓

Existing GI Asset	Node or Corridor	Inherent value	Multi-functionality	Connectivity	Accessibility	Score	Major GI Node	Minor GI Node	Major GI Corridor	Minor GI Corridor	Not a GI Feature
Royle Farm	N	1	3		2	6		✓			
Newbold Quarry	N	1	3		2	6		✓			
Newhall Derelict Railway Line	N	1	3		2	6		✓			
Mimi's Wood	N	1	3		2	6		✓			
Anslow Park Farm	N	1	3		2	6		✓			
Pool Green Woodland	N	1	3		2	6		✓			
Bretby Landfill Site	N	1	3		2	6		✓			
Land by Jeff's Wood	N	1	3		2	6		✓			
School Playing Fields											
De Ferrers High School Upper and Lower Site	N	1	1		1	3					✓
Rykneld Primary school	N	1	1		1	3					✓
Angelesey Primary School	N	1	1		1	3					✓
Christ Church Infants School	N	1	1		1	3					✓
Edgehill Junior School	N	1	1		1	3					✓
Robert Sutton Catholic School	N	1	1		1	3					✓
Violet Lane Infants School	N	1	1		1	3					✓

Existing GI Asset	Node or Corridor	Inherent value	Multi-functionality	Connectivity	Accessibility	Score	Major GI Node	Minor GI Node	Major GI Corridor	Minor GI Corridor	Not a GI Feature
Tower View Primary School	N	1	1		1	3					✓
Bend Oak Junior School	N	1	1		1	3					✓
Holy Rosary RC Primary School	N	1	1		1	3					✓
Winshill Infants School	N	1	1		1	3					✓
Shobnall Primary School	N	1	1		1	3					✓
Grange Infants School	N	1	1		1	3					✓
Victoria Community School	N	1	1		1	3					✓
Horninglow Infants School	N	1	1		1	3					✓
Lansdowne Infants School	N	1	1		1	3					✓
Eton Park Junior School	N	1	1		1	3					✓
Stretton Brook School	N	1	1		1	3					✓
Crown Special School	N	1	1		1	3					✓
William Shrewsbury County School	N	1	1		1	3					✓
Short Street Infants School	N	1	1		1	3					✓
Waterside Junior School	N	1	1		1	3					✓
Burton College	N	1	1		1	3					✓

Existing GI Asset	Node or Corridor	Inherent value	Multi-functionality	Connectivity	Accessibility	Score	Major GI Node	Minor GI Node	Major GI Corridor	Minor GI Corridor	Not a GI Feature
Holy Trinity CE Primary School	N	1	1		1	3					✓
William Hutson Junior School	N	1	1		1	3					✓
Castle Park Infants	N	1	1		1	3					✓
Private Sports Pitches											
Pirelli Sports and Social Club	N	1	1		1	3					✓
Burton Rugby Club (Peel Croft)	N	1	1		1	3					✓
Winshill (Mill Hill) Cricket Club?	N	1	1		1	3					✓
Branston Golf and Country Club	N	1	2		1	4					✓
Burton on Trent Golf Course	N	1	2		1	4					✓
Craythorne Golf Course	N	1	2		1	4					✓
Burton Hospital	N	1	2		1	4					✓
Belvedere Sports and Social Club	N	1	1		1	3					✓
BTR Silvertown	N	1	1		1	3					✓
Burton Albion Football Club	N	1	1		1	3					✓

Existing GI Asset	Node or Corridor	Inherent value	Multi-functionality	Connectivity	Accessibility	Score	Major GI Node	Minor GI Node	Major GI Corridor	Minor GI Corridor	Not a GI Feature
Barley Mow Pub	N	1	1		1	3					✓
The Gardens Hotel - Bowls Green	N	1	1		1	3					✓
Burton Tennis and Squash Club	N	1	2		1	4					✓
Burton Constitutional Club	N	1	1		1	3					✓
John Carr Social Club	N	1	1		1	3					✓
The Grange Lawn Tennis Club	N	1	1		1	3					✓
St Pauls Square Bowls Club	N	1	1		1	3					✓
Anglesey Arms Pub	N	1	1		1	3					✓
Pirelli Sports Club Open Space	N	1	3		1	5					✓
Henhurst Recreation club	N	1	2		1	4					✓
Allotments											
Rosliston Road Allotments	N	1	2		1	4					✓
Fivelands Allotments	N	1	2		1	4					✓
Claverhouse Allotments	N	1	2		1	4					✓
Bearwood Hill Allotments	N	1	2		1	4					✓
Anglesey Allotments	N	1	2		1	4					✓

Existing GI Asset	Node or Corridor	Inherent value	Multi-functionality	Connectivity	Accessibility	Score	Major GI Node	Minor GI Node	Major GI Corridor	Minor GI Corridor	Not a GI Feature
Bradmore Road Allotments	N	1	2		1	4					✓
Mona Lands 'C' Allotments	N	1	2		1	4					✓
Eton Road Allotments	N	1	2		1	4					✓
Designated Biodiversity Sites											
Scalpcliffe Hill SBI	N	2	2		2	6		✓			
Trent and Mersey Canal: Monk's Bridge SBI	C		3	3	2	8			✓		
Claymills Junction (near) SBI	N	2	3		2	7		✓			
Alder Moor and Lount Bank SBI	N	2	2		1	5					✓
Shobnall Dingle SBI	N	2	2		1	5					✓
Oaks Wood SBI	N	2	3		2	7		✓			
Trent Valley Washlands SBI	N	2	3		2	7		✓			
Callingwood Lane SBI	N	2	2		1	5					✓
Pool Green SBI	N	2	2		1	5					✓
Battlestead Hill and The Rough SBI	N	2	3		2	7		✓			
Rockets Oak SBI	N	2	2		1	5					✓

Existing GI Asset	Node or Corridor	Inherent value	Multi-functionality	Connectivity	Accessibility	Score	Major GI Node	Minor GI Node	Major GI Corridor	Minor GI Corridor	Not a GI Feature
Tatenhill Lane SBI	N	2	2		1	5					✓
Branston Gravel Pits SBI	N	2	3		3	8	✓				
Bean's Covert BAS	N	2	3		2	7		✓			
Bitham Clay Pit BAS	N	2	3		2	7		✓			
Princess Way BAS	N	2	2		2	6		✓			
Waterloo Clump BAS	N	2	2		1	5					✓
Dove Cliff BAS	N	2	2		1	5					✓
Burton Old Railway BAS	C		2	2	1	5					✓
Brook Hollows Spinney BAS	N	2	3		2	7		✓			
Hanbury Road BAS	C	2	2		1	5					✓
Greaves Lane BAS	N	2	2		2	6		✓			
B5017 BAS	C		2	1	1	5					✓
Shobnall Brook BAS	N	2	2		1	5					✓
Dale Brook BAS	N	2	2		1	5					✓
Branston Lock BAS	N	2	3		1	6		✓			
Branston Road BAS	C		2	1	1	4					✓
Riverside Hotel Grounds, Branston BAS	N	2	2		1	5					✓
The Rookery BAS	N	2	2		1	5					✓
Callowbridge BAS	N	2	2		1	5					✓

Existing GI Asset	Node or Corridor	Inherent value	Multi-functionality	Connectivity	Accessibility	Score	Major GI Node	Minor GI Node	Major GI Corridor	Minor GI Corridor	Not a GI Feature
Trent and Mersey Canal BAS	C		3	3	2	8			✓		
Scalpcliffe Hill LNR	N	2	2		2	6		✓			
Scheduled Monuments											
Burton upon Trent Abbey SS Mary and Modwen	N	3	2		2	7		✓			
Sinai Park	N	3	2		1	6		✓			
Enclosure 320m North of Tivey's House	N	3	1		1	5					✓
Watercourses											
River Trent	C		3	3	3	9			✓		
River Dove	C		3	2	1	6				✓	
Trent & Mersey Canal	C		3	3	2	8			✓		
Dale Brook	C		2	1	1	4					✓
Shobnall Brook	C		2	1	1	4					✓
Open Water											
Branston Claypits	N	2	3		1	6		✓			
Claymills Pool	N	2	3		2	7		✓			
Drakelow Nature Reserve	N	2	2		1	5					✓

Existing GI Asset	Node or Corridor	Inherent value	Multi-functionality	Connectivity	Accessibility	Score	Major GI Node	Minor GI Node	Major GI Corridor	Minor GI Corridor	Not a GI Feature
SUDS (Sustainable Urban Drainage Systems)											
Westbury Homes at Bean Hill	N	1	2		2	5					✓
Promoted Public Access Routes											
Battlestead and Back	C		2	3	2	7				✓	
Woodlands and Washlands	C		1	2	2	5					✓
Monks and Moorings	C		1	2	2	5					✓
Branston to Jacksons Bank	C		2	3	2	7				✓	
Public Bridleways											
Bridleways around Burton upon Trent	C		2	1	2	5					✓
Cycleways											
East Staffordshire Cycleway Network	C		1	1	2	4					✓
National Cycle Route 54	C		2	1	3	6				✓	
Railway Corridors											
Railway Corridors through Burton upon Trent	C		1	1	1	3					✓

Existing GI Asset	Node or Corridor	Inherent value	Multi-functionality	Connectivity	Accessibility	Score	Major GI Node	Minor GI Node	Major GI Corridor	Minor GI Corridor	Not a GI Feature
Uttoxeter											
Parks, Recreation Grounds and Play Areas											
Blount's Drive Play Area	N	1	2		2	5					✓
Mallard Close Woodland	N	1	3		2	6		✓			
George Elliott Close Play Area	N	1	1		2	4					✓
Avocet Close Play Area	N	1	2		2	5					✓
Kestrel Close Play Area	N	1	1		2	4					✓
Hazelwells Community Park	N	1	2		2	5					✓
Bramshall Recreation Ground/Park	N	1	2		2	5					✓
Uttoxeter Leisure Centre/Oldfield Park	N	1	2		2	5					✓
Greenacres Drive	N	1	2		2	5					✓
Davies Drive Recreation Ground	N	1	2		2	5					✓
St Johns Play Area	N	1	1		2	4					✓
Grange Road Recreation Ground	N	1	2		2	5					✓
Weaver Lodge Play Area	N	1	2		2	5					✓

Existing GI Asset	Node or Corridor	Inherent value	Multi-functionality	Connectivity	Accessibility	Score	Major GI Node	Minor GI Node	Major GI Corridor	Minor GI Corridor	Not a GI Feature
Harvey Place	N	1	1		2	4					✓
Penny Croft Lane Sports Field	N	1	2		2	5					✓
Penny Croft Surplus Site	N	1	2		2	5					✓
Chaffinch Drive Play Area	N	1	1	1	2	4					✓
Stramshall Playing Field	N	1	2		2	5					✓
Woodland											
Mallard Close Woodland	N	1	3		2	6		✓			
Strip of Ancient Semi-Natural Woodland East of R. Dove	N	2	3		1	6		✓			
Lower Eastfied and Alder Carr SBI	N	2	3		1	6		✓			
Wellbank Plantation BAS	N	2	3		1	6		✓			
Bakers Pit Plantation BAS	N	2	3		1	6		✓			
Gendall's Coppice SBI	N	2	3		1	6		✓			
Woodford Rough SBI	N	2	3		1	6		✓			
School Playing Fields											
Oldfields Hall Middle School	N	1	2		1	4					✓

Existing GI Asset	Node or Corridor	Inherent value	Multi-functionality	Connectivity	Accessibility	Score	Major GI Node	Minor GI Node	Major GI Corridor	Minor GI Corridor	Not a GI Feature
St Mary's CE First School	N	1	2		1	4					✓
Tynsel Parkes CE First School	N	1	2		1	4					✓
Windsor Park Middle School	N	1	2		1	4					✓
St Joesph's RC Primary School	N	1	1		1	3					✓
Thomas Alleynes High School	N	1	2		1	4					✓
Picknalls First School	N	1	1		1	4					✓
Private Sports Pitches											
Oldfield Sports Ground	N	1	1		1	3					✓
Dove Way Sports Field	N	1	2		1	4					✓
Bradley House (British Legion)	N	1	2		1	4					✓
Sunnyside Recreation Ground	N	1	1		1	3					✓
Hermitage Residential Home	N	1	1		1	3					✓
The Racecourse Ground	N	3	2		1	6		✓			
Bramshall Road Cricket Ground	N	1	1		1	3					✓

Existing GI Asset	Node or Corridor	Inherent value	Multi-functionality	Connectivity	Accessibility	Score	Major GI Node	Minor GI Node	Major GI Corridor	Minor GI Corridor	Not a GI Feature
Uttoxeter Golf Course	N	1	2		1	4					✓
Allotments											
Allotments off Windmilll Close/Cockstubbles	N	1	2		1	4					✓
Allotments off Alexander Crescent	N	1	2		1	4					✓
Allotments off Leighton Close	N	1	2		1	4					✓
Designated Biodiversity Sites											
Creighton (north-west of) SBI	N	2	2		1	5					✓
Crakemarsh Pool SBI	N	2	2		1	5					✓
Lower Eastfield and Alder Carr SBI	N	2	3		1	6		✓			
Gendall's Coppice SBI	N	2	3		1	6		✓			
Oak Tree Farm Fields SBI	N	2	2		1	5					✓
Woodford Rough SBI	N	2	3		1	6		✓			
Wellbank Plantation BAS	N	2	3		1	6		✓			
Bakers Pit Plantation BAS	N	2	3		1	6		✓			
Watercourses											

Existing GI Asset	Node or Corridor	Inherent value	Multi-functionality	Connectivity	Accessibility	Score	Major GI Node	Minor GI Node	Major GI Corridor	Minor GI Corridor	Not a GI Feature
River Dove	C		3	2	1	6		✓			
River Tean	C		2	1	1	4					✓
Picknal Brook	C		2	1	1	4					✓
Promoted Public Access Routes											
Staffordshire Way	C		2	3	2	7				✓	
Circular Footpath	C		2	2	2	6				✓	
Cycleways											
East Staffordshire Cycleway Network	C		1	1	2	4					✓
National Route 54: White Peak Loop	C		2	1	3	6				✓	
Railway Corridors											
Railway Corridor through Uttoxeter	C		1	1	1	3					✓
East Staffordshire Borough											
Sites of Special Scientific Interest											
Stanton Pastures and Cuckoocliff Valley	N	3	2		1	6		✓			
Goat Lodge	N	3	2		1	6		✓			
Blithfield Reservoir	N	3	3		2	8	✓				

Existing GI Asset	Node or Corridor	Inherent value	Multi-functionality	Connectivity	Accessibility	Score	Major GI Node	Minor GI Node	Major GI Corridor	Minor GI Corridor	Not a GI Feature
Forest Banks	N	3	3		1	7		✓			
Braken Hurst	N	3	2		1	6		✓			
Old River Dove, Marston on Dove	N	3	2		1	6		✓			
RIGS Sites											
The Walk, Weaver Hills	N	2	2		1	5					✓
Buttermilk Hall	N	2	2		1	5					✓
Fauld Crater	N	2	2		1	5					✓
Ancient Woodland Complexes											
Needwood Forest	N	3	3		1	7		✓			
Bagot Forest	N	3	3		1	7		✓			
Churnet Valley	N	3	3		1	7		✓			
BAP Habitat Complexes											
Weaver Hills Grassland	N	3	2		1	6		✓			
Bagot Forest Wet Woodland	N	3	3		1	7		✓			
Needwood Escarpment Wet Woodland	N	3	3		1	7		✓			
River Dove Floodplain Grazing Marsh	N	3	3		1	7		✓			

Existing GI Asset	Node or Corridor	Inherent value	Multi-functionality	Connectivity	Accessibility	Score	Major GI Node	Minor GI Node	Major GI Corridor	Minor GI Corridor	Not a GI Feature
River Trent Floodplain Grazing Marsh	N	3	3		1	7		✓			
Forestry Commission Woodland											
Kingston Wood	N	1	3		3	7		✓			
Bagots Wood	N	1	3		2	6		✓			
Bromley Park	N	1	3		3	7		✓			
Blithfield Hall	N	1	3		3	7		✓			
Birchwood & Roosthill	N	1	3		3	7		✓			
Woodland Trust Woodland											
Battlestead Wood	N	2	3		2	7		✓			
Staffordshire Wildlife Trust Reserves											
Oakwood Pasture	N	1	3		2	6		✓			
Registered Common Land											
Land Known as Belmont Green	N	3	2		2	7		✓			
Hanbury Common	N	3	2		2	7		✓			
Woodmill Common	N	3	2		2	7		✓			
Tourist Features											

Existing GI Asset	Node or Corridor	Inherent value	Multi-functionality	Connectivity	Accessibility	Score	Major GI Node	Minor GI Node	Major GI Corridor	Minor GI Corridor	Not a GI Feature
Branston Water Park	N	2	3		3	8	✓				
Uttoxeter Racecourse	N	3	2		1	6		✓			
The National Forest Maize Maze	N	2	2		2	6		✓			
Sudbury Hall	N	2	2		1	5					✓
Barton Turns Marina	N	2	3		1	6		✓			
The Trent Washlands	N	2	3		2	7		✓			
Croxden Abbey	N	2	2		1	5					✓
Hoar Cross Hall	N	2	2		1	5					✓
Jacksons Bank	N	2	3		2	7		✓			
Tutbury Castle	N	2	2		1	5					✓
Byrkley Park Centre	N	1	2		1	4					✓
Blithfield Reservoir	N	3	3		2	8	✓				
Long Distance Footpaths											
Staffordshire Way	C		2	3	2	7				✓	
Way for the Millennium	C		2	3	2	7				✓	
National Cycle Network											
Route 54	C		2	1	3	6				✓	
Rivers and Major Water Bodies											

Existing GI Asset	Node or Corridor	Inherent value	Multi-functionality	Connectivity	Accessibility	Score	Major GI Node	Minor GI Node	Major GI Corridor	Minor GI Corridor	Not a GI Feature
River Trent	C		3	3	2	8			✓		
Trent & Mersey Canal	C		3	3	2	8			✓		
River Dove	C		3	2	1	6				✓	
River Tean	C		2	1	1	4					✓
River Tame	C		2	1	1	4					✓
River Blithe	C		2	3	1	6				✓	
River Churnet	C		3	2	2	7				✓	
River Hamps	C		2	1	1	4					✓
River Mease	C		2	1	1	4					✓
Blithfield Reservoir	N	3	3		2	8	✓				
Parkland											
Byrkley Park	N	2	2		1	5					✓
Wychnor Park	N	2	2		1	5					✓
National Forest Woodland Over 10ha in Area											
Yoxall Meadow Woods (26.1ha)	N	2	3		2	7		✓			
St George's Wood/Normans Wood (55.93ha)	N	2	3		2	7		✓			
Eland Wood (21.25ha)	N	2	3		2	7		✓			

Existing GI Asset	Node or Corridor	Inherent value	Multi-functionality	Connectivity	Accessibility	Score	Major GI Node	Minor GI Node	Major GI Corridor	Minor GI Corridor	Not a GI Feature
White Wood (24.01ha)	N	2	3		2	7		✓			
Land Near Brankley Farm (43.36ha)	N	2	3		1	6		✓			
Potters Meadow (11.4ha)	N	2	3		3	8	✓				
Barton Park (45.4ha)	N	2	3		2	7		✓			
Dunstall Estate (91.72ha)	N	2	3		3	8	✓				
Barton Marina (17.8ha)	N	2	3		3	8	✓				
Barton Quarry (65.63ha)	N	2	3		1	6		✓			
Pool Green/East Hill/Lawns Farm/Sinai Park (116ha)	N	2	3		3	8	✓				
Anslow Park Farm (20.49ha)	N	2	3		1	6		✓			
Burton Floodplain Woodland/Upper Mills Farm (29.63ha)	N	2	3		1	6		✓			
Bass Meadow (24.98ha)	N	2	3		3	8	✓				

Appendix 4: Historic Landscape Character Data Analysis

East Staffordshire

HLC Type	Total Area	Percentage Cover	Most Common Period
Abandoned stone quarries	28.055	0.07	Post-War - 1945 AD to 2050 AD
Active stone quarries	47.787	0.12	Post-War - 1945 AD to 2050 AD
Artificial Lake/Pond	219.701	0.57	Varied Medieval to Post-War
Broadleaved Ancient Woodland	624.358	1.61	Post Medieval - 1486 AD to 1799 AD
Broadleaved Plantation	346.962	0.89	Industrial - 1800 AD to 1913 AD
Broadleaved Woodland with Sinuous Boundaries	85.629	0.22	Post Medieval - 1486 AD to 1799 AD
Civil Airfield	137.879	0.35	Post-1914 - 1914 AD to 1945 AD
Coniferous Plantation	176.626	0.45	Varied Industrial to Post-War
Coniferous Woodland with Sinuous Boundaries	506.905	1.30	Varied Industrial to Post-War
Derelict Industrial Land	0.279	0.00	Post-War - 1945 AD to 2050 AD
Disused Colliery/ Spoil Tips	4.447	0.01	Post-War - 1945 AD to 2050 AD
Drained Wetlands	78.888	0.20	Post Medieval - 1486 AD to 1799 AD
Former Ordnance Depot Now Used for Other Purposes	4.359	0.01	Post-War - 1945 AD to 2050 AD
Golf Course	152.904	0.39	Post-War - 1945 AD to 2050 AD
Gravel Quarry Active	189.365	0.49	Post-War - 1945 AD to 2050 AD
Gravel Quarry Inactive	10.504	0.03	Post-War - 1945 AD to 2050 AD
Historic Settlement Core	36.238	0.09	Varied Medieval to Post-Medieval
Industrial Complex	739.609	1.90	Post-War - 1945 AD to 2050 AD
Irregular Squatter Enclosure	45.387	0.12	Industrial - 1800 AD to 1913 AD
Large Irregular Fields	2310.942	5.95	Varied Post-Medieval to Post-War
Major Road Junction	3.809	0.01	Post-War - 1945 AD to 2050 AD
Miscellaneous Floodplain Fields	2087.505	5.37	Post Medieval - 1486 AD to 1799 AD
Mixed Ancient Woodland	35.134	0.09	Post Medieval - 1486 AD to 1799 AD
Mixed Plantation	201.007	0.52	Varied Industrial to Post-War
Mixed Woodland with Sinuous Boundaries	137.792	0.35	Industrial - 1800 AD to 1913 AD
Natural Open Water	1.565	0.00	Medieval - 1066 AD to 1485 AD
Other Large Rectilinear Fields	977.948	2.52	Varied Post-Medieval to Post-War
Other Parkland	411.298	1.06	Post-War - 1945 AD to 2050 AD
Other Plantation	159.998	0.41	Varied Post-Medieval to Post-War
Other Small Rectilinear Fields	4635.881	11.93	Post Medieval - 1486 AD to 1799 AD
Other Unenclosed Ground	7.823	0.02	Post-War - 1945 AD to 2050 AD
Other Woodland with Sinuous Boundaries	59.204	0.15	Post Medieval - 1486 AD to 1799 AD
Paddocks/Closes	154.38	0.40	Post Medieval - 1486 AD to 1799 AD
Parks and Gardens	570.134	1.47	Industrial - 1800 AD to 1913 AD
Piecemeal Enclosure	4633.833	11.92	Post Medieval - 1486 AD to 1799 AD
Planned Clearance/Assartment	73.804	0.19	Varied Medieval to Post-War
Planned Enclosure	6436.695	16.56	Industrial - 1800 AD to 1913 AD
Post-1880s Settlement	1741.397	4.48	Varied Post-1914 to Post-War
Pre-1880s Settlement	676.512	1.74	Industrial - 1800 AD to 1913 AD
Rectilinear Squatter Enclosure	38.024	0.10	Varied Post-Medieval to Industrial

HLC Type	Total Area	Percentage Cover	Most Common Period
Redeveloped Pre-1880s Settlement	69.916	0.18	Post-War - 1945 AD to 2050 AD
Reorganised Piecemeal Enclosure	2437.856	6.27	Varied Post-Medieval to Post-War
Replanted Ancient Woodland	13.389	0.03	Varied Industrial to Post-War
Reservoir	314.2	0.81	Varied Post-Medieval to Post-War
Small Assarts	119.946	0.31	Post Medieval - 1486 AD to 1799 AD
Small Irregular Fields	4430.859	11.40	Post Medieval - 1486 AD to 1799 AD
Sports Fields	139.495	0.36	Post-War - 1945 AD to 2050 AD
Train Station/Sidings	1.419	0.00	Industrial - 1800 AD to 1913 AD
Unimproved Open Hill Pasture	62.345	0.16	Medieval - 1066 AD to 1485 AD
Very Large Post-War Fields	2490.737	6.41	Post-War - 1945 AD to 2050 AD

Burton upon Trent

HLC Type	Total Area	Percentage Cover	Most Common Period
Artificial Lake/Pond	61.888	1.00	Post-War - 1945 AD to 2050 AD
Broadleaved Ancient Woodland	20.444	0.33	Post Medieval - 1486 AD to 1799 AD
Broadleaved Plantation	37.508	0.61	Post-War - 1945 AD to 2050 AD
Broadleaved Woodland with Sinuous Boundaries	20.406	0.33	Industrial - 1800 AD to 1913 AD
Coniferous Plantation	2.403	0.04	Varied Industrial to Post-War
Coniferous Woodland with Sinuous Boundaries	3.26	0.05	Varied Post-1914 to Post-War
Derelict Industrial Land	0.279	0.00	Post-War - 1945 AD to 2050 AD
Golf Course	92.943	1.50	Post-War - 1945 AD to 2050 AD
Gravel Quarry Active	55.241	0.89	Post-War - 1945 AD to 2050 AD
Gravel Quarry Inactive	7.497	0.12	Varied Post-1914 to Post-War
Historic Settlement Core	11.042	0.18	Varied Medieval to Post Medieval
Industrial Complex	486.783	7.87	Varied Post-1914 to Post-War, some Industrial
Irregular Squatter Enclosure	3.139	0.05	Varied Post-Medieval to Industrial
Large Irregular Fields	319.185	5.16	Varied Post-1914 to Post-War, some Post-Medieval & Industrial
Major Road Junction	3.809	0.06	Post-War - 1945 AD to 2050 AD
Miscellaneous Floodplain Fields	289.398	4.68	Post Medieval - 1486 AD to 1799 AD, some Industrial
Mixed Plantation	3.664	0.06	Varied Industrial to Post-War
Mixed Woodland with Sinuous Boundaries	4.618	0.07	Industrial - 1800 AD to 1913 AD
Other Large Rectilinear Fields	309.723	5.01	Varied Post-Medieval to Post-War
Other Parkland	195.471	3.16	Post-War - 1945 AD to 2050 AD
Other Plantation	36.609	0.59	Post-War - 1945 AD to 2050 AD
Other Small Rectilinear Fields	379.821	6.14	Post Medieval - 1486 AD to 1799 AD
Other Woodland with Sinuous Boundaries	11.697	0.19	Industrial - 1800 AD to 1913 AD
Paddocks/Closes	17.257	0.28	Post Medieval - 1486 AD to 1799 AD
Parks and Gardens	2.276	0.04	Industrial - 1800 AD to 1913 AD
Piecemeal Enclosure	599.116	9.69	Post Medieval - 1486 AD to 1799 AD
Planned Enclosure	1118.549	18.09	Industrial - 1800 AD to 1913 AD
Post-1880s Settlement	1126.203	18.21	Varied Post-1914 to Post-War
Pre-1880s Settlement	308.846	4.99	Industrial - 1800 AD to 1913 AD
Redeveloped Pre-1880s Settlement	53.007	0.86	Varied Post-1914 to Post-War
Reorganised Piecemeal Enclosure	93.046	1.50	Post-1914 - 1914 AD to 1945 AD
Replanted Ancient Woodland	9.64	0.16	Varied Industrial to Post-1914
Reservoir	6.041	0.10	Post-War - 1945 AD to 2050 AD
Small Irregular Fields	186.134	3.01	Varied Post-Medieval to Post-War
Sports Fields	97.683	1.58	Varied Post-1914 to Post-War
Train Station/Sidings	1.419	0.02	Industrial - 1800 AD to 1913 AD
Very Large Post-War Fields	208.433	3.37	Post-War - 1945 AD to 2050 AD

Uttoxeter

HLC Type	Total Area	Percentage Cover	Most Common Period
Broadleaved Ancient Woodland	6.742	0.21	Post Medieval - 1486 AD to 1799 AD
Broadleaved Plantation	13.526	0.43	Industrial - 1800 AD to 1913 AD
Golf Course	30.854	0.98	Post-War - 1945 AD to 2050 AD
Industrial Complex	75.528	2.39	Mixed Post-1914 & Post-War, one Industrial
Large Irregular Fields	100.058	3.17	Post Medieval - 1486 AD to 1799 AD
Miscellaneous Floodplain Fields	410.552	13.01	Post Medieval - 1486 AD to 1799 AD
Other Parkland	103.464	3.28	Post-War - 1945 AD to 2050 AD
Other Plantation	4.803	0.15	Industrial - 1800 AD to 1913 AD
Other Small Rectilinear Fields	608.685	19.29	Post Medieval - 1486 AD to 1799 AD
Parks and Gardens	21.88	0.69	Industrial - 1800 AD to 1913 AD
Piecemeal Enclosure	473.173	15.00	Post Medieval - 1486 AD to 1799 AD
Planned Enclosure	277.216	8.79	Industrial - 1800 AD to 1913 AD, some Post Medieval
Post-1880s Settlement	264.809	8.39	Mixed Post-1914 & Post-War
Pre-1880s Settlement	47.84	1.52	Industrial - 1800 AD to 1913 AD
Redeveloped Pre-1880s Settlement	7.149	0.23	Post-War - 1945 AD to 2050 AD
Reorganised Piecemeal Enclosure	339.712	10.77	Varied Post-Medieval to Post-War
Small Irregular Fields	361.202	11.45	Post Medieval - 1486 AD to 1799 AD
Sports Fields	8.298	0.26	Post-War - 1945 AD to 2050 AD